Miele

Connector-Box

de Gebrauchs- und Montageanweisung

en Operating and installation instructions

da Brugs- og monteringsanvisning

es Instrucciones de manejo y montaje

fr Mode d'emploi et instructions de montage

pt Instruções de utilização e de montagem

it Istruzioni d'uso e di montaggio

hu Használati és szerelési útmutató

tr Kullanım ve Montaj Kılavuzu

M.-Nr. 11 763 781

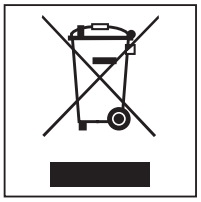
Entsorgung der Transportverpackung

Die Verpackung schützt die Connector-Box vor Transportschäden. Die Verpackungsmaterialien sind nach umweltverträglichen und entsorgungstechnischen Gesichtspunkten ausgewählt und deshalb recycelbar.

Das Rückführen der Verpackung in den Materialkreislauf spart Rohstoffe und verringert das Abfallaufkommen. Ihr Fachhändler nimmt die Verpackung zurück.

Entsorgung des Altgerätes

Elektro- und Elektronikgeräte enthalten vielfach wertvolle Materialien. Sie enthalten auch bestimmte Stoffe, Gemische und Bauteile, die für ihre Funktion und Sicherheit notwendig waren. Im Hausmüll sowie bei nicht sachgemäßer Behandlung können sie der menschlichen Gesundheit und der Umwelt schaden. Geben Sie Ihr Altgerät deshalb auf keinen Fall in den Hausmüll.



Nutzen Sie stattdessen die offiziellen, eingerichteten Sammel- und Rücknahmestellen zur Abgabe und Verwertung der Elektro- und Elektronikgeräte bei Kommune, Händler oder Miele. Für das Löschen etwaiger personenbezogener Daten auf dem zu entsorgenden Altgerät sind Sie gesetzmäßig eigenverantwortlich. Bitte sorgen Sie dafür, dass Ihr Altgerät bis zum Abtransport kindersicher aufbewahrt wird.

Diese Connector Box entspricht den vorgeschriebenen Sicherheitsbestimmungen. Ein unsachgemäßer Gebrauch kann jedoch zu Schäden an Personen und Sachen führen.

Lesen Sie zuerst diese Gebrauchs- und Montageanweisung für die Connector Box. Sie gibt wichtige Hinweise für die Sicherheit, den Gebrauch und die Wartung der Connector Box. Dadurch schützen Sie sich und verhindern Schäden an Ihrem Gerät.

Bewahren Sie diese Gebrauchs- und Montageanweisung auf und geben Sie diese an einen eventuellen Nachbesitzer weiter.

Bestimmungsgemäße Verwendung

▶ Die Connector Box ist ausschließlich zum Herstellen einer Verbindung zwischen einer Miele Professional Maschine und externer Hardware wie z. B. einer Spitzenlastabschaltung, einem Münzkassierer, einem Zusatzgebläse, einer Abluftklappe oder Dosierpumpen vorgesehen. Andere Verwendungszwecke sind möglicherweise gefährlich. Miele haftet nicht für Schäden, die durch bestimmungswidrigen Gebrauch oder falsche Bedienung verursacht werden.

▶ Die Connector Box ist ausschließlich zur Verwendung in Kombination mit Miele Professional Maschinen mit einer werkseitig ausgerüsteten Anschlusskupplung bestimmt.

Technische Sicherheit

▶ Der Einbau und die Montage der Connector Box dürfen nur durch Elektrofachkräfte durchgeführt werden, die die Voraussetzungen für den sachgemäßen Gebrauch sicherstellen.

▶ Kontrollieren Sie die Connector Box vor dem Einbau auf äußere, sichtbare Schäden. Eine beschädigte Connector Box darf nicht installiert und in Betrieb genommen werden.

▶ Die Connector Box darf im Falle eines Defekts oder einer Beschädigung nicht repariert werden.
Ersetzen Sie die Connector Box in diesen Fällen nur gegen eine Neue.

▶ Die Connector Box ist nur dann elektrisch vom Netz getrennt, wenn die Trennung der Miele Professional Maschine gemäß der Angaben in der Gebrauchs- und Aufstellanweisung erfolgt.

▶ Die Anschlussleitungen von der Miele Professional Maschine zur Connector Box dürfen nicht eingeklemmt werden.

▶ Die Connector Box muss bauseitig montiert oder mit einer speziellen Maschinenbefestigung (nachkaufbares Zubehör) an der Maschine montiert werden.

▶ Die Connector Box muss nach der Wandmontage im Servicefall zugänglich sein.

▶ Die Montage und Verlegung der Anschlussleitungen zur Connector Box müssen fachgerecht erfolgen.

▶ Die werkseitig mitgelieferten Kabelzugentlastungen und Kabelverschraubungen mit den Gegenmuttern zum Anschluss externer Hardware müssen verwendet werden.

Funktionsweise

Durch die Connector Box kann externe Hardware von Miele und anderen Anbietern an die Miele Professional Maschine angeschlossen werden. Externe Hardware sind z. B. Kassiersysteme, Dosiersysteme, Spitzenlastanlagen, Drucksensoren, externe Abluftklappen usw.

Funktionen der Connector Boxen:

Connector Box Codierung 1	Connector Box Codierung 2
- Dosierung 1-6	- Dosierung 7-12
- Leerstandsmeldung 1-6	- Leerstandsmeldung 7-12
- Durchflussmenge 1-3	- Durchflussmenge 4-6
- Spitzenlastabschaltung	- Wasserrückgewinnung
- Kassiersystem	- Programm Signale
- Programm Signale	

An einer Waschmaschine lassen sich bis zu 2 Boxen anschließen. Die Waschmaschine ist ab Werk mit einem Anschluss für eine Connector Box ausgerüstet. Um eine zweite Box zu verwenden, muss das AP-WM020 Kit bestellt und von einer Elektrofachkraft installiert werden.

Die Connector Boxen können an beide Anschlüsse der Waschmaschine angeschlossen werden, da lediglich die Codierung entscheidet, um welche Connector Box es sich handelt. In der Waschmaschine sind die Anschlüsse parallel aufgeschaltet und somit signaltechnisch identisch.

Die Connector Boxen müssen für den Betrieb codiert werden. Durch die Codierung wird die Funktion bestimmt (siehe Tabellen Funktionen und Strombelastbarkeit Codierung 1/2). Die Codierung ist auch bei der Verwendung von einer Box notwendig.

Codiert werden die Connector Boxen mit der ab Werk in Anschluss 8.3 eingesteckten Drahtbrücke. Für die Funktionen der Connector Box 1 (siehe Tabellen Funktionen und Strombelastbarkeit Codierung 1), wird die Drahtbrücke in den Anschluss 8.1 gesteckt. Für die Funktionen der Connector Box 2 (siehe Tabellen Funktionen und Strombelastbarkeit Codierung 2), wird die Drahtbrücke in den Anschluss 8.2 gesteckt.

Weitere Informationen zur Aktivierung der Maschinensteuerung werden der Gebrauchsanweisung der Waschmaschine entnommen. (Kapitel Betreiberebene)

Diese Gebrauchs- und Montageanweisung ist in erster Linie eine Anleitung zum Anschließen von Kassiergeräten. Über die Kassiergeräte hinausgehende Anschlüsse anderer externer Hardware müssen von autorisierten Personen des Hardwareherstellers ausgeführt werden.

Vor Befestigung der Connector Box

- Die Connector Box muss bauseitig fachgerecht angeschraubt werden. Maße zum Bohren der Wandlöcher siehe Kapitel „🔧“, Bild Ⓑ am Ende dieser Gebrauchs- und Montageanweisung.
- Alternativ kann die Connector Box mit den beiliegenden Klebestreifen an der Wand befestigt werden. Beachten Sie hierbei:
  - Die Klebestreifen werden außen und mittig auf die Rückseite geklebt. Siehe Kapitel „🔧“, Bild Ⓒ am Ende dieser Gebrauchs- und Montageanweisung.
  - Die Oberfläche der Wand muss glatt, fest, fett- und staubfrei sein.
  - Auf der Wand dürfen keine Strukturtapete, kein Strukturputz und keine andere Oberfläche mit ungenügender Haftungseigenschaft sein.
  - Die maximale Montagehöhe darf 1,50 m nicht überschreiten.

Die Connector Box darf nicht über offene Wasserstellen, Ablaufrinnen oder ähnlichen Systemen installiert werden.

⚠ Stromschlaggefahr durch eine herunterfallende Connector Box.
Die Connector Box kann durch eine falsche oder defekte Befestigung herunterfallen, was zu einem elektrischen Schlag führen kann.
Eine heruntergefallene Connector Box darf nicht mehr verwendet werden. Tauschen Sie die Connector Box gegen eine Neue aus oder lassen Sie diese durch den Miele Kundendienst prüfen.

Installation durchführen

Instandsetzungsarbeiten dürfen grundsätzlich nur von einer Elektrofachkraft unter Berücksichtigung der gültigen Sicherheitsbestimmungen durchgeführt werden.

- Trennen Sie die Miele Professional Maschine von der Netzspannung.
- Befestigen Sie die Connector Box mit 4 beiliegenden Schrauben (4 x 40) und Dübeln (S6) an der Wand. Siehe Kapitel „🔧“, Bild Ⓑ.
- Alternativ können Sie die Connector Box mit beiliegenden Klebestreifen an der Wand befestigen. Siehe Kapitel „🔧“, Bild Ⓒ.
- Führen Sie die Verbindung von der Connector Box zu der Miele Professional Maschine und zu der externen Hardware (z. B. Kassiersystem) durch.

Für angeschlossene externe Hardware anderer Hersteller darf der Mindestquerschnitt von 1,0 mm^2 bei einer maximalen Leitungslänge von 2,50 m nicht unterschritten werden.

Kabelzugentlastung montieren

Die Anschlusskabel der externen Hardware müssen mit Kabelverschraubungen und Kabelzugentlastungen an der Connector Box befestigt werden. Siehe Kapitel „🔧“, Bild Ⓐ am Ende dieser Gebrauchs- und Montageanweisung.

- Nehmen Sie den Deckel der Connector Box ab (2 Schrauben herausdrehen).
- Entnehmen Sie eine oder mehrere Kabelzugentlastungen ①.
- Stellen Sie die Connector Box auf die schmale Seite, sodass die verschlossenen Anschlusslöcher oben sind.
- Drücken Sie mit einem Schraubendreher das geprägte, runde Teil im Anschlussloch ② heraus.

Tipp: Durchstoßen Sie die umlaufende Nut mit dem Schraubendreher an mehreren Stellen.

- Stecken Sie die Gegenmutter hinein ③.
- Schrauben Sie Gewindestück ④ auf.

Tipp: Schieben Sie die Schraubkappe ⑤ über das Ende der Anschlussleitung der externen Hardware.

- Führen Sie die Anschlussleitung durch das Gewindestück in die Connector Box.
- Drehen Sie die Schraubkappe fest.

Die Schraubkappe schützt vor Feuchtigkeit und Staub.

- Befestigen Sie die Anschlussleitung mit der Kabelzugentlastung ⑥.
- Führen Sie die erforderlichen Anschlüsse in der Connector Box für die externe Hardware aus.
- Schließen Sie den Deckel der Connector Box (2 Schrauben hineindrehen).

Legende für Kabelzugentlastung im Kapitel „🔧“, Bild Ⓐ

① Kabelzugentlastungen
② Anschlussloch
③ Gegenmutter
④ Gewindestück
⑤ Schraubkappe
⑥ Kabelzugentlastung mit Schrauben

Programmierung

Nach der Installation der Connector Box sind an der zugehörigen Miele Professional Maschine die Einstellungen für die externen Funktionen durchzuführen.

Folgen Sie den Anweisungen in der Gebrauchs- und Aufstellanweisung für die Miele Professional Maschine.

Für die Kommunikation mit externer Hardware (Kassiergerät, Dosiereinheit ...) ist es erforderlich, Einstellungen/Programmierungen an der Miele Professional Maschine durchzuführen.

Strombelastbarkeit der Ein- und Ausgänge

Bei der Installation ist darauf zu achten, dass die Stromaufnahme der anzuschließenden Zusatzkomponenten die zulässigen Einzelströme und Gesamtstromaufnahme im Neutralleiter nicht überschreitet.

Bei der Installation ist darauf zu achten, dass durch den Anschluss der Waschmaschine/des Trockners in Kombination mit der Connector Box und der angeschlossenen Hardware der Sicherungsstrom des Spannungsnetzes nicht überschritten wird.

Die Ein- und Ausgänge sind im Einzelnen für Ströme ausgelegt, wie im Abschnitt „Tabelle Strombelastbarkeit“ beschrieben.

Das Schaltelement für Kontakt 3.3 ist so ausgelegt, dass auch ein Gebläse mit Frequenzumrichter geschaltet werden kann.

Für angeschlossene externe Hardware anderer Hersteller darf der Mindestquerschnitt von 1,0 mm^2 bei einer maximalen Leitungslänge von 2,50 m nicht unterschritten werden.

Leerstandsensierung

An die Klemmbelegungen 4.1 und 4.2 wird die Leerstandsensierung angeschlossen. Diese entsprechen der Schutzkleinspannung (Schutzklasse III).

Die Vorgaben der Sensorhersteller müssen beachtet werden.
Die Leitungen müssen getrennt von allen anderen Leitungen verlegt werden.

Kassiersystem installieren

Kassiergerät im Zeitbetrieb

Das Anschlussschema hierzu finden Sie am Ende dieser Gebrauchs- und Montageanweisung im Kapitel ◴ („Timed operation“).

- C4030, C4031, C4065, C4070, C4080
- C5003

Kassiergerät im Programmbetrieb

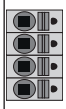
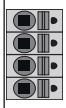
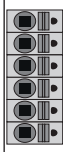
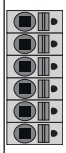
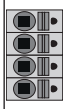
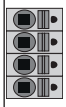
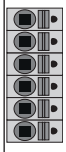
Das Anschlussschema hierzu finden Sie am Ende dieser Gebrauchs- und Montageanweisung im Kapitel ▶ („Programme operation“).

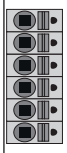
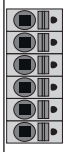
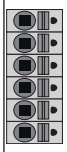
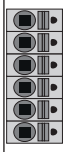
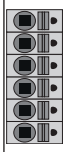
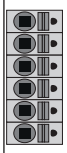
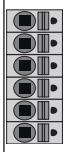
- C4030, C4031, C4060, C4065, C4070, C4080
- C5002, C5004

Legende

	7-polige Kupplung des Kassiergerätes
	Die 7-polige Kupplung des Kassiergerätes kann entfernt werden, um die Leitungen direkt über die Klemmen der Connector Box anzuschließen.
Connector Box	Klemmbuchsen der Connector Box
C	Schematische Darstellung der elektrischen Verschaltung im Kassiergerät
	Zeitbetrieb
	Programmbetrieb
	Symbol für PE-Klemme (Erdung)

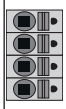
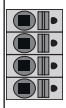
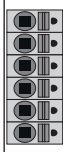
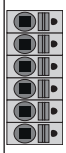
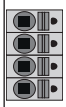
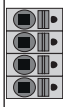
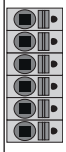
Tabelle Funktion und Strombelastbarkeit Codierung 1

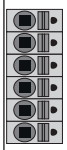
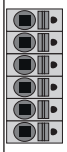
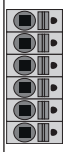
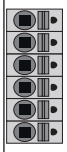
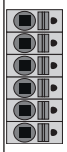
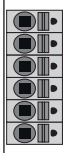
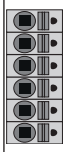
	An-wendung	Klemm-be-legung	Signal	Signal-richtung	Strom-belast-barkeit	Beschreibung Funktion
	Schutzleiter	PE	PE	—>		Schutzleiter
		PE	PE	—>		Schutzleiter
		PE	PE	—>		Schutzleiter
		PE	PE	—>		Schutzleiter
	Spitzenlast	1.1	L'	—>	1,0 A	a Einschaltmeldung Ausgang
		1.2	N'	—>	1,0 A	b Heizungsanforderung Ausgang
		1.3	L'	<—		c Heizungsfreigabe Eingang
		1.4	N'	—>		d Neutralleiter
	Kassiersystem	2.1	L'	—>	0,5 A	Gerät betriebsbereit
		2.2	L'	—>	0,5 A	Programmstatus
		2.3	L'	<—		Programmkaufimpuls
		2.4	N'	<—		Zeitkaufsignal
		2.5	N'	—>		Spannungsversorgung
		2.6	L'	—>		
	Dosieren	3.1	N'	—>	1,0 A	Spannungsversorgung ext.
		3.2	L'	—>	1,0 A	
		3.3	L'	—>	1,0 A	Dosierung 1
		3.4	N'	—>	1,0 A	
		3.5	L'	—>	1,0 A	Dosierung 2
		3.6	N'	—>	1,0 A	
	Dosieren	3.7	L'	—>	1,0 A	Dosierung 3
		3.8	N'	—>	1,0 A	
		3.9	L'	—>	1,0 A	Dosierung 4
		3.10	N'	—>	1,0 A	
	Dosieren	3.11	L'	—>	1,0 A	Dosierung 5
		3.12	N'	—>	1,0 A	
		3.13	L'	—>	1,0 A	Dosierung 6
		3.14	N'	—>	1,0 A	
	Programmsignale	4.1	L'	—>		Programmstop Ausgang
		4.2	N'	—>		
		4.3	L'	—>		Blockende Ausgang
		4.4	N'	—>		
		4.5	Schaltsignal	<—		Programmstop Eingang (Spannungsquelle)
		4.6	Bezugspo-tential für 4.5	<—		

	An-wendung	Klemm-be-legung	Signal	Signal-richtung	Strom-belast-barkeit	Beschreibung Funktion
	Dosieren	5.1	L'	—>		Leerstandsmeldung 1
		5.2	N'	<—		
		5.3	L'	—>		Leerstandsmeldung 2
		5.4	N'	<—		
		5.5	L'	—>		Leerstandsmeldung 3
		5.6	N'	<—		
	Dosieren	5.7	L'	—>		Leerstandsmeldung 4
		5.8	N'	<—		
		5.9	L'	—>		Leerstandsmeldung 5
		5.10	N'	<—		
		5.11	L'	—>		Leerstandsmeldung 6
		5.12	N'	<—		
	Dosieren	6.1	+13V	—>		Durchflussmenge Dos 1
		6.2	FM 1	<—		
		6.3	GND	—>		
		6.4	+13V	<—		Durchflussmenge Dos 2
		6.5	FM 2	—>		
		6.6	GND	<—		
	Dosieren	6.7	+13V	—>		Durchflussmenge Dos 3
		6.8	FM 3	<—		
		6.9	GND	—>		
		6.10	+13V	<—		Durchflussmenge Dos 4
		6.11	FM 4	—>		
		6.12	GND	<—		
	Dosieren	6.13	+13V	—>		Durchflussmenge Dos 5
		6.14	FM 5	<—		
		6.15	GND	—>		
		6.16	+13V	<—		Durchflussmenge Dos 6
		6.17	FM 6	—>		
		6.18	GND	<—		
	Wasserzulauf	7.1	+13V	—>		Flügelradzähler 1
		7.2	FRZ 1	<—		
		7.3	GND	—>		
		7.4	+13V	<—		Flügelradzähler 2
		7.5	FRZ 2	—>		
		7.6	GND	<—		
	Wasser-zulauf	7.7	+13V	—>		Flügelradzähler 3
		7.8	FRZ 3	<—		
		7.9	GND	—>		
	Codie-rung	8.1	COD 1	<—		Brücke von 8.1 nach 8.3
		8.2	COD 2	<—		nicht belegt
		8.3	GND	—>		Brücke von 8.1 nach 8.3

L' = geschaltete Phase, N' = geschalteter Neutralleiter
* siehe Abschnitt „Strombelastbarkeit der Ein- und Ausgänge“
Gesamtstrombelastung der Elektronik: siehe Abschnitt „Installation“.

Tabelle Funktion und Strombelastbarkeit Codierung 2

	An-wendung	Klemm-be-legung	Signal	Signal-richtung	Strom-belast-barkeit	Beschreibung Funktion
	Schutzleiter	PE	PE	—>		Schutzleiter
		PE	PE	—>		
		PE	PE	—>		
		PE	PE	—>		
	WRG	1.1	L'	—>	1,0 A	WRG Pumpe EIN
		1.2	N'	—>	0,5 A	WRG Ventil
		1.3	L'	<—		nicht belegt
		1.4	N'	—>		nicht belegt
	WRG	2.1	L'	—>	0,5 A	WRG Ablauf
		2.2	L'	—>	0,5 A	WRG Zulauf
		2.3	L'	<—		nicht belegt
		2.4	N'	<—		WRG Pos. zu
		2.5	N'	—>		nicht belegt
		2.6	L'	—>		nicht belegt
	Dosieren	3.1	N'	—>	1,0 A	Spannungsversorgung ext.
		3.2	L'	—>	1,0 A	
		3.3	L'	—>	1,0 A	Dosierung 7
		3.4	N'	—>	1,0 A	
		3.5	L'	—>	1,0 A	Dosierung 8
		3.6	N'	—>	1,0 A	
	Dosieren	3.7	L'	—>	1,0 A	Dosierung 9
		3.8	N'	—>	1,0 A	
		3.9	L'	—>	1,0 A	Dosierung 10
		3.10	N'	—>	1,0 A	
	Dosieren	3.11	L'	—>	1,0 A	Dosierung 11
		3.12	N'	—>	1,0 A	
		3.13	L'	—>	1,0 A	Dosierung 12
		3.14	N'	—>	1,0 A	
	Programmsignale	4.1	L'	—>		nicht belegt
		4.2	N'	—>		
		4.3	L'	—>		nicht belegt
		4.4	N'	—>		
		4.5	Schaltsignal	<—		nicht belegt
		4.6	Bezugspo-tential für 4.5	<—		

	An-wendung	Klemm-be-legung	Signal	Signal-richtung	Strom-belast-barkeit	Beschreibung Funktion
	Dosieren	5.1	L'	—>		Leerstandsmeldung 7
		5.2	N'	<—		
		5.3	L'	—>		Leerstandsmeldung 8
		5.4	N'	<—		
		5.5	L'	—>		Leerstandsmeldung 9
		5.6	N'	<—		
	Dosieren	5.7	L'	—>		Leerstandsmeldung 10
		5.8	N'	<—		
		5.9	L'	—>		Leerstandsmeldung 11
		5.10	N'	<—		
		5.11	L'	—>		Leerstandsmeldung 12
		5.12	N'	<—		
	Dosieren	6.1	+13V	—>		Durchflussmenge Dos 7
		6.2	FM 1	<—		
		6.3	GND	—>		
		6.4	+13V	<—		Durchflussmenge Dos 8
		6.5	FM 2	—>		
		6.6	GND	<—		
	Dosieren	6.7	+13V	—>		Durchflussmenge Dos 9
		6.8	FM 3	<—		
		6.9	GND	—>		
		6.10	+13V	<—		Durchflussmenge Dos 10
		6.11	FM 4	—>		
		6.12	GND	<—		
	Dosieren	6.13	+13V	—>		Durchflussmenge Dos 11
		6.14	FM 5	<—		
		6.15	GND	—>		
		6.16	+13V	<—		Durchflussmenge Dos 12
		6.17	FM 6	—>		
		6.18	GND	<—		
	Wasserzulauf	7.1	+13V	—>		Flügelradzähler 4
		7.2	FRZ 1	<—		
		7.3	GND	—>		
		7.4	+13V	<—		Flügelradzähler 5
		7.5	FRZ 2	—>		
		7.6	GND	<—		
	Wasser-zulauf	7.7	+13V	—>		Flügelradzähler 6
		7.8	FRZ 3	<—		
		7.9	GND	—>		
	Codie-rung	8.1	Code 1	<—		nicht belegt
		8.2	Code 2	<—		Brücke von 8.2 nach 8.3
		8.3	GND	—>		Brücke von 8.2 nach 8.3

L' = geschaltete Phase, N' = geschalteter Neutralleiter
* siehe Abschnitt „Strombelastbarkeit der Ein- und Ausgänge“
Gesamtstrombelastung der Elektronik: siehe Abschnitt „Installation“.

Elektrischer Anschluss

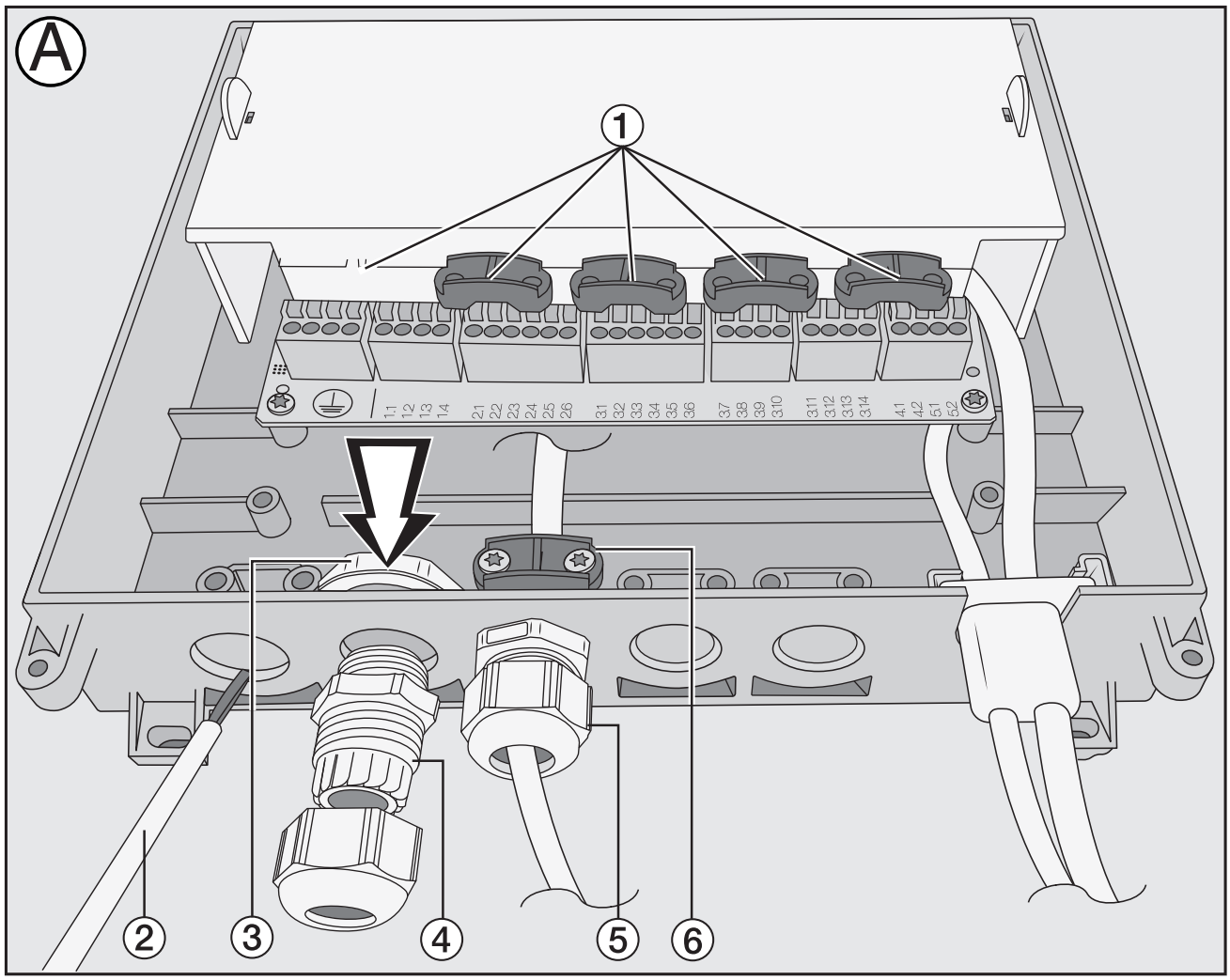
Die Connector Box wird durch die Miele Professional Maschine mit Netzspannung versorgt.

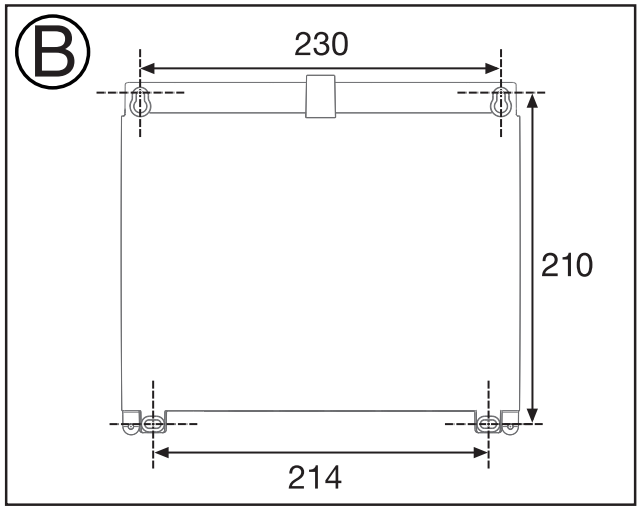
Die Connector Box besitzt keinen zusätzlichen Schalter *Ein*/*Aus*.

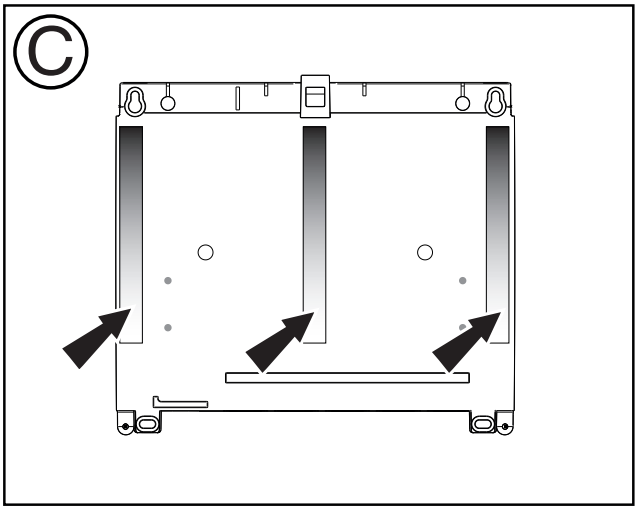
⚠ Beschädigung der Connector Box durch falsches Anschließen.
Die Connector Box kann durch Überstrom beschädigt werden.
Das Schalten der Connector Box mit Fremdspannung ist nicht zulässig.

Technische Daten

Spannung	200 V–240 V
Frequenz	50 Hz/60 Hz
Temperatur- bereich für den Betrieb	2 °C–35 °C

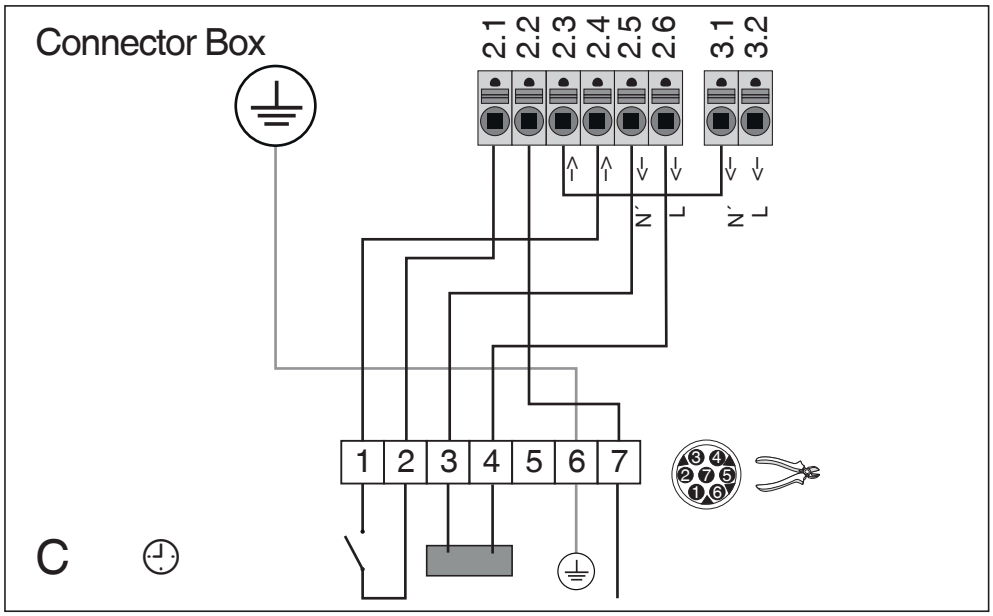

A
1
2
3
4
5
6


B
230
210
214

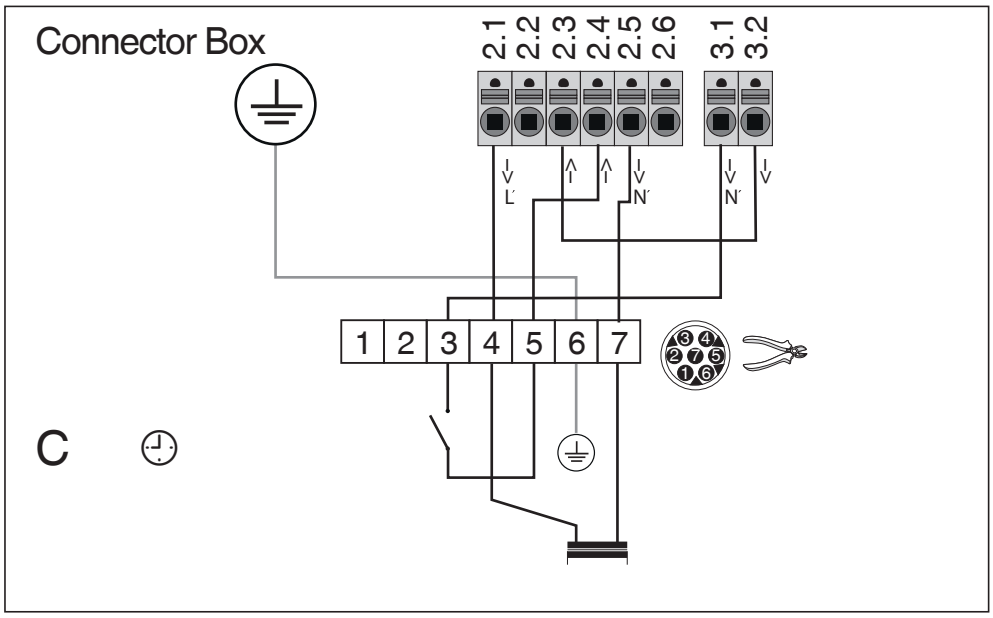

C

(Timed operation)

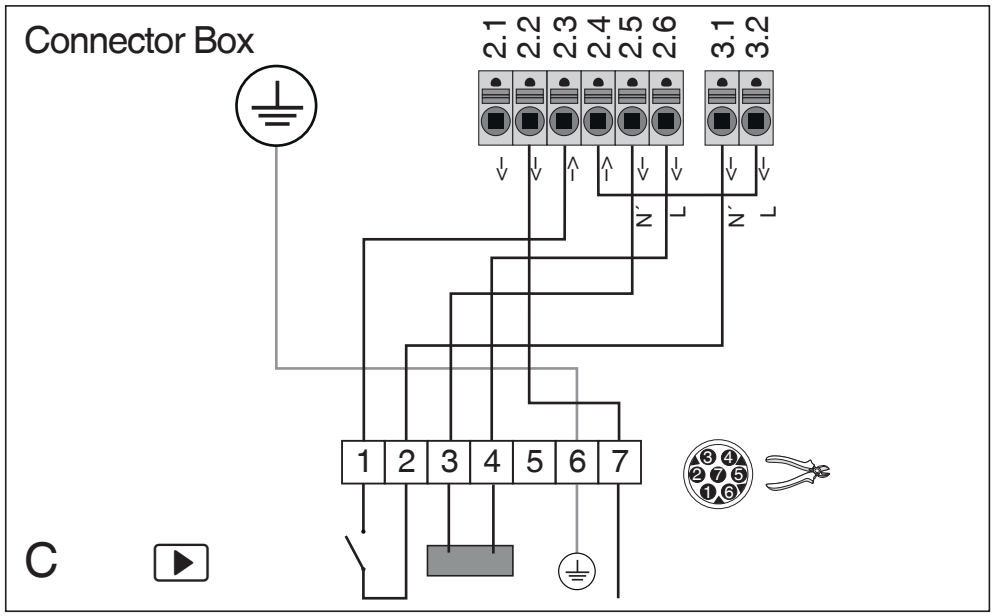
C4030, C4031, C4065, C4070, C4080



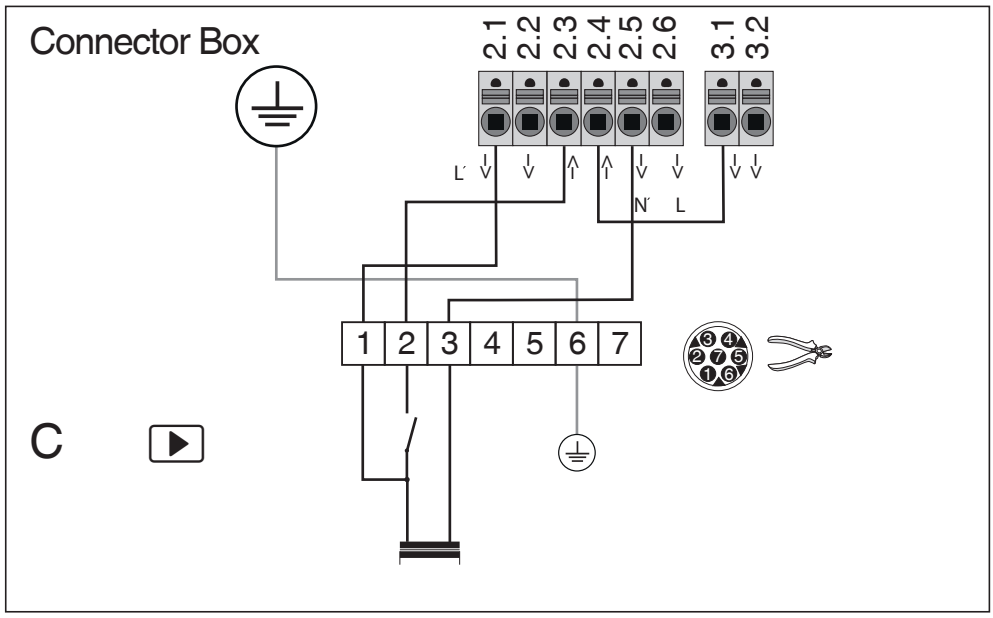
C5003



C4030, C4031, C4065, C4070, C4080



C4060, C5002, C5004



en - Contents

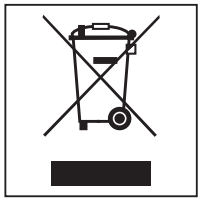
Disposal of the packaging material

The packaging material protects the Connector Box from transport damage. The packaging materials used are selected from materials which are environmentally friendly for disposal and can therefore be recycled.

Recycling the packaging material reduces the use of raw materials in the manufacturing process and also reduces the amount of waste in landfill sites. Your dealer will take the packaging material away.

Disposing of your old appliance

Electrical and electronic appliances often contain valuable materials. They also contain specific materials, compounds and components, which were essential for their correct function and safety. These could be hazardous to human health and to the environment if disposed of with your domestic waste or if handled incorrectly. Please do not, therefore, dispose of your old appliance with your household waste.



Please dispose of it at your local community waste collection / recycling centre for electrical and electronic appliances, or contact your dealer or Miele for advice. You are also responsible for deleting any personal data that may be stored on the appliance being disposed of. Please ensure that your old appliance poses no risk to children while being stored prior to disposal.

This Connector Box complies with all relevant current safety requirements. Inappropriate use can, however, lead to personal injury and damage to property.

First read these operating and installation instructions for the Connector Box. They contain important information on the safety, use and maintenance of the Connector Box. This prevents both personal injury and damage to the machine.

Keep these operating and installation instructions in a safe place and pass them on to any future owner.

Correct application

▶ The Connector Box is intended to be used solely to establish a connection between a Miele Professional washing machine and external hardware, such as a peak-load negotiation system, a coin payment device, an additional fan, an exhaust valve or dispenser pumps. Any other applications may be dangerous.
Miele cannot be held liable for damage resulting from incorrect or improper use or operation.

▶ The Connector Box box is intended to be used exclusively in conjunction with Miele Professional machines with a connection coupling that has been fitted at the factory.

Technical safety

▶ The Connector Box must only be installed and assembled by qualified electricians who have made sure that the conditions for its correct use are met.

▶ Before installation, check the Connector Box for visible signs of damage. Do not install or use a damaged Connector Box.

▶ The Connector Box must not be repaired in the event that it displays a defect or damage.
In such cases, the Connector Box must be replaced by a new one.

▶ The Connector Box is only disconnected from the mains power supply if the Miele Professional washing machine has been disconnected in accordance with the specifications provided in the operating and installation instructions.

▶ The mains connection cables between the Miele Professional washing machine and Connector Box must not become trapped.

▶ The Connector Box must be assembled on site or mounted on the washing machine with a special machine attachment (optional accessory).

▶ The Connector Box must be accessible after being mounted on a wall to enable service work to be carried out.

▶ The mains connection cables for the Connector Box must be assembled and routed correctly.

▶ The cable strain relief fixtures as well as the cable glands and counter nuts supplied by the factory to connect external hardware must be used.

How it works

The Connector Box allows external hardware from Miele and other suppliers to be connected to the Miele Professional washing machine. External hardware includes payment systems, dispensing systems, peak load systems, pressure sensors and external exhaust valves.

Connector Box functions:

Connector Box coding 1	Connector Box coding 2
- Dispensing 1–6	- Dispensing 7–12
- Container empty signal 1–6	- Container empty signal 7–12
- Flow rate 1–3	- Flow rate 4–6
- Peak-load negotiation	- Water recovery
- Payment system	- Programme signals
- Programme signals	

Up to 2 boxes can be connected to a washing machine. The washing machine is equipped as standard with a connection for a Connector Box. To use a second Box, the APWM 020 kit must be ordered and installed by a qualified electrician.

The Connector Boxes can be connected to both connections of the washing machine, as only the coding decides which Connector Box is used. In the washing machine, the connections are connected in parallel and are therefore identical in terms of signalling.

The Connector Boxes must be coded for operation. The coding determines the function (see tables on coding 1/2 functions and current carrying capacity). Coding is also required when using one Box.

The Connector Boxes are coded as standard with the wire jumper plugged into connection 8.3. For the functions of Connector Box 1 (see tables on coding 1 functions and current carrying capacity), the wire jumper is plugged into connection 8.1. For the functions of Connector Box 2 (see tables on coding 2 functions and current carrying capacity), the wire jumper is plugged into connection 8.2.

For more information on how to activate the machine control, refer to the operating instructions of the washing machine. (“Supervisor level” chapter)

These operating and installation instructions primarily describe how to connect payment devices. Connections for external hardware other than payment devices must be made by persons authorised by the hardware manufacturer.

Before securing the Connector Box

- The Connector Box must be screwed into place properly on site. The dimensions of the holes to be drilled into the wall are quoted in Fig. Ⓑ in the "🔧" chapter at the end of these operating and installation instructions.
- Alternatively, the Connector Box can be attached to the wall using the adhesive strips provided. If you choose this option, please note:
  - The adhesive strips are attached along the outer edges and in the centre of the rear panel. See Fig. Ⓒ in the "🔧" chapter at the end of these operating and installation instructions.
  - The surface of the wall must be smooth and solid with no traces of grease or dust.
  - It must not be covered with textured wallpaper, textured plaster or any other surface finish with inadequate adhesion properties.
  - The maximum mounting height must not exceed 1.50\u00a0m.

Do not install the Connector Box above uncovered water holes, drain channels or similar systems.

⚠ Risk of electric shock caused by the Connector Box falling down off the wall and into water.
If it is not secured properly and correctly, the Connector Box can fall down off the wall, causing an electric shock.
If an Connector Box falls down off the wall, it must be taken out of service immediately. Replace the Connector Box with a new one or have it checked by the Miele Customer Service Department.

Carrying out the installation

Service and repair work must only be carried out by a suitably qualified electrician in accordance with all appropriate local and national safety requirements.

- Disconnect the Miele Professional washing machine from the mains voltage.
- Attach the Connector Box to the wall using the 4\u00a0screws (4 x 40) and plugs (S6) provided. See Fig. Ⓑ in the "🔧" chapter.
- Alternatively, the Connector Box can be attached to the wall using the adhesive strips provided. See Fig. Ⓒ in the "🔧" chapter.
- Establish the connection between the Connector Box and the Miele Professional washing machine and the external hardware (e.g. payment device).

When connecting external hardware provided by other manufacturers, the cable cross-section must not be less than 1.0 mm^2 with a maximum cable length of 2.50 m (98 $^1/_3$").

Mounting the cable strain relief

The mains connection cables of external hardware must be fastened to the Connector Box using cable glands and cable strain relief fixtures. See Fig. Ⓐ in the "🔧" chapter at the end of these operating and installation instructions.

- Remove the lid from the Connector Box (remove the 2\u00a0screws).
- Remove one or more of the cable strain relief fixtures ①.
- Stand the Connector Box on its narrow end so that the sealed connection holes are at the top.
- Using a screwdriver, press out the round indentation in the connection hole ②.

Tip: Pierce through the groove round the edge at several places using a screwdriver.

- Insert the counter nut ③.
- Screw on the threaded fitting ④.

Tip: Slide the screw cap ⑤ over the end of the mains connection cable for the external hardware.

- Guide the connection cable through the threaded fitting and into the Connector Box.
- Tighten the screw cap.

The screw cap provides protection against moisture and dust.

- Secure the mains connection cable with the strain relief ⑥.
- Make the required connections for the external hardware in the Connector Box.
- Close the lid on the Connector Box (screw in the 2\u00a0screws).

Key for cable strain relief in Fig. Ⓐ in the "🔧" chapter

① Cable strain relief fixtures
② Connection hole
③ Counter nut
④ Threaded fitting
⑤ Screw cap
⑥ Cable strain relief with screws

Programming

Once the Connector Box has been installed, the settings for the external functions have to be made on the corresponding Miele Professional washing machine.

Follow the instructions provided in the operating and installation instructions for the Miele Professional washing machine.

To enable communication with external hardware (payment device, dispensing unit, etc.), settings/configurations need to be made on the Miele Professional washing machine.

Current carrying capacity of the inputs and outputs

During installation, make sure that the current consumption of the additional components to be connected does not exceed the permissible individual currents and total current consumption in the neutral conductor.

During installation, make sure that connecting the washing machine/tumble dryer in combination with the Connector Box and the associated hardware does not exceed the total fuse rating of the electricity supply.

The inputs and outputs are designed specifically for currents, as described in the “Current carrying capacity table” section.

The switching element for contact 3.3 is designed in such a way that a fan and frequency converter can be connected.

When connecting external hardware provided by other manufacturers, the cable cross-section must not be less than 1.0 mm^2 with a maximum cable length of 2.50 m (98 $^1/_3$").

Empty sensor

The empty sensor is connected to terminals 4.1 and 4.2. These meet safety extra-low voltage requirements (class III).

The specifications of the sensor manufacturer must be observed. The cables must be routed separately from all other cables.

Installing a payment system

Payment system in timed operation

The wiring diagram is provided at the end of these operating and installation instructions in section ◴ (“Timed operation”).

- C4030, C4031, C4065, C4070, C4080
- C5003

Payment system in programme operation

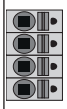
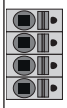
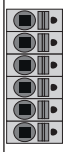
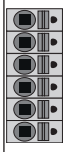
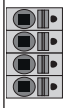
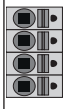
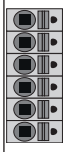
The wiring diagram is provided at the end of these operating and installation instructions in section ▶ (“Programme operation”).

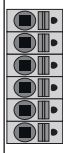
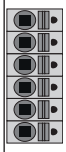
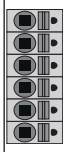
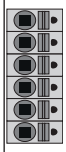
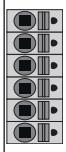
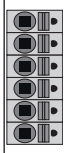
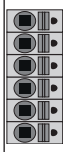
- C4030, C4031, C4060, C4065, C4070, C4080
- C5002, C5004

Legend

	7-pin coupling of the payment device
	The 7-pin coupling of the payment device can be removed to connect the cables directly with the Connector Box terminals.
Connector Box	Terminal sockets of the Connector Box
C	Schematic diagram of the electrical circuit in the payment device
	Time operation
	Programme operation
	Symbol for PE terminal (earth)

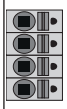
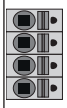
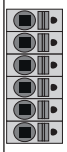
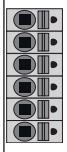
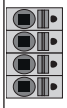
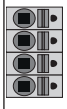
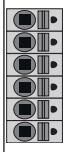
Coding 1 function and current carrying capacity table

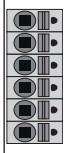
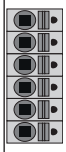
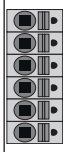
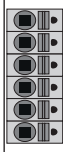
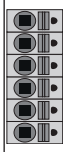
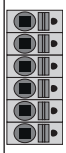
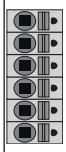
	App lication	Terminal assign ment	Signal	Signal direction	Current carrying capacity	Description and function
	Protective earth	PE	PE	—>		Protective earth
		PE	PE	—>		Protective earth
		PE	PE	—>		Protective earth
		PE	PE	—>		Protective earth
	Peak load	1.1	L'	—>	1.0\u00a0A	a Output switch-on message
		1.2	N'	—>	1.0\u00a0A	b Output heating demand
		1.3	L'	<—		c Input heating enable
		1.4	N'	—>		d Neutral conductor
	Payment system	2.1	L'	—>	0.5\u00a0A	Machine ready for operation
		2.2	L'	—>	0.5\u00a0A	Programme status
		2.3	L'	<—		Programme buying impulse
		2.4	N'	<—		Time buying signal
		2.5	N'	—>		Power supply
		2.6	L'	—>		
	Dispensing	3.1	N'	—>	1.0\u00a0A	Ext. power supply
		3.2	L'	—>	1.0\u00a0A	
		3.3	L'	—>	1.0\u00a0A	Dispensing 1
		3.4	N'	—>	1.0\u00a0A	
		3.5	L'	—>	1.0\u00a0A	Dispensing 2
		3.6	N'	—>	1.0\u00a0A	
	Dispensing	3.7	L'	—>	1.0\u00a0A	Dispensing 3
		3.8	N'	—>	1.0\u00a0A	
		3.9	L'	—>	1.0\u00a0A	Dispensing 4
		3.10	N'	—>	1.0\u00a0A	
	Dispensing	3.11	L'	—>	1.0\u00a0A	Dispensing 5
		3.12	N'	—>	1.0\u00a0A	
		3.13	L'	—>	1.0\u00a0A	Dispensing 6
		3.14	N'	—>	1.0\u00a0A	
	Programme signals	4.1	L'	—>		Programme stop output
		4.2	N'	—>		
		4.3	L'	—>		Block end output
		4.4	N'	—>		
		4.5	Switching signal	<—		Programme stop input (Voltage source)
		4.6	Reference potential for 4.5	<—		

	Application	Terminal assignment	Signal	Signal direction	Current carrying capacity	Description and function
	Dispensing	5.1	L'	—>		Container empty signal 1
		5.2	N'	<—		
		5.3	L'	—>		Container empty signal 2
		5.4	N'	<—		
		5.5	L'	—>		Container empty signal 3
		5.6	N'	<—		
	Dispensing	5.7	L'	—>		Container empty signal 4
		5.8	N'	<—		
		5.9	L'	—>		Container empty signal 5
		5.10	N'	<—		
		5.11	L'	—>		Container empty signal 6
		5.12	N'	<—		
	Dispensing	6.1	+13\u00a0V	—>		Flow rate dis 1
		6.2	FM 1	<—		
		6.3	GND	—>		
		6.4	+13\u00a0V	<—		Flow rate dis 2
		6.5	FM 2	—>		
		6.6	GND	<—		
	Dispensing	6.7	+13\u00a0V	—>		Flow rate dis 3
		6.8	FM 3	<—		
		6.9	GND	—>		
		6.10	+13\u00a0V	<—		Flow rate dis 4
		6.11	FM 4	—>		
		6.12	GND	<—		
	Dispensing	6.13	+13\u00a0V	—>		Flow rate dis 5
		6.14	FM 5	<—		
		6.15	GND	—>		
		6.16	+13\u00a0V	<—		Flow rate dis 6
		6.17	FM 6	—>		
		6.18	GND	<—		
	Water inlet	7.1	+13\u00a0V	—>		Flowmeter 1
		7.2	FRZ 1	<—		
		7.3	GND	—>		
		7.4	+13\u00a0V	<—		Flowmeter 2
		7.5	FRZ 2	—>		
		7.6	GND	<—		
	Water inlet	7.7	+13\u00a0V	—>		Flowmeter 3
		7.8	FRZ 3	<—		
		7.9	GND	—>		
	Coding	8.1	COD 1	<—		Jumper from 8.1\u00a0to 8.3
		8.2	COD 2	<—		Not used
		8.3	GND	—>		Jumper from 8.1\u00a0to 8.3

L' = switched phase, N' = switched neutral conductor
* see section “Current carrying capacity of the inputs and outputs”
Total current load of electronic module: see section “Installation”.

Coding 2 function and current carrying capacity table

	App lication	Terminal assign ment	Signal	Signal direction	Current carrying capacity	Description and function
	Protective earth	PE	PE	—>		Protective earth
		PE	PE	—>		
		PE	PE	—>		
		PE	PE	—>		
	WRG	1.1	L'	—>	1.0\u00a0A	WRG pump ON
		1.2	N'	—>	0.5\u00a0A	WRG valve
		1.3	L'	<—		Not used
		1.4	N'	—>		Not used
	WRG	2.1	L'	—>	0.5\u00a0A	WRG drainage
		2.2	L'	—>	0.5\u00a0A	WRG intake
		2.3	L'	<—		Not used
		2.4	N'	<—		WRG pos. closed
		2.5	N'	—>		Not used
		2.6	L'	—>		Not used
	Dispensing	3.1	N'	—>	1.0\u00a0A	Ext. power supply
		3.2	L'	—>	1.0\u00a0A	
		3.3	L'	—>	1.0\u00a0A	Dispensing 7
		3.4	N'	—>	1.0\u00a0A	
		3.5	L'	—>	1.0\u00a0A	Dispensing 8
		3.6	N'	—>	1.0\u00a0A	
	Dispensing	3.7	L'	—>	1.0\u00a0A	Dispensing 9
		3.8	N'	—>	1.0\u00a0A	
		3.9	L'	—>	1.0\u00a0A	Dispensing 10
		3.10	N'	—>	1.0\u00a0A	
	Dispensing	3.11	L'	—>	1.0\u00a0A	Dispensing 11
		3.12	N'	—>	1.0\u00a0A	
		3.13	L'	—>	1.0\u00a0A	Dispensing 12
		3.14	N'	—>	1.0\u00a0A	
	Programme signals	4.1	L'	—>		Not used
		4.2	N'	—>		
		4.3	L'	—>		Not used
		4.4	N'	—>		
		4.5	Switching signal	<—		Not used
		4.6	Reference potential for 4.5	<—		

	App lication	Terminal assign ment	Signal	Signal direction	Current carrying capacity	Description and function
	Dispensing	5.1	L'	—>		Container empty signal 7
		5.2	N'	<—		
		5.3	L'	—>		Container empty signal 8
		5.4	N'	<—		
		5.5	L'	—>		Container empty signal 9
		5.6	N'	<—		
	Dispensing	5.7	L'	—>		Container empty signal 10
		5.8	N'	<—		
		5.9	L'	—>		Container empty signal 11
		5.10	N'	<—		
		5.11	L'	—>		Container empty signal 12
		5.12	N'	<—		
	Dispensing	6.1	+13\u00a0V	—>		Flow rate dis 7
		6.2	FM 1	<—		
		6.3	GND	—>		
		6.4	+13\u00a0V	<—		Flow rate dis 8
		6.5	FM 2	—>		
		6.6	GND	<—		
	Dispensing	6.7	+13\u00a0V	—>		Flow rate dis 9
		6.8	FM 3	<—		
		6.9	GND	—>		
		6.10	+13\u00a0V	<—		Flow rate dis 10
		6.11	FM 4	—>		
		6.12	GND	<—		
	Dispensing	6.13	+13\u00a0V	—>		Flow rate dis 11
		6.14	FM 5	<—		
		6.15	GND	—>		
		6.16	+13\u00a0V	<—		Flow rate dis 12
		6.17	FM 6	—>		
		6.18	GND	<—		
	Water inlet	7.1	+13\u00a0V	—>		Flowmeter 4
		7.2	FRZ 1	<—		
		7.3	GND	—>		
		7.4	+13\u00a0V	<—		Flowmeter 5
		7.5	FRZ 2	—>		
		7.6	GND	<—		
	Water inlet	7.7	+13\u00a0V	—>		Flowmeter 6
		7.8	FRZ 3	<—		
		7.9	GND	—>		
	Coding	8.1	Code 1	<—		Not used
		8.2	Code 2	<—		Jumper from 8.2\u00a0to 8.3
		8.3	GND	—>		Jumper from 8.2\u00a0to 8.3

L' = switched phase, N' = switched neutral conductor

* see section “Current carrying capacity of the inputs and outputs”

Total current load of electronic module: see section “Installation”.

Electrical connection

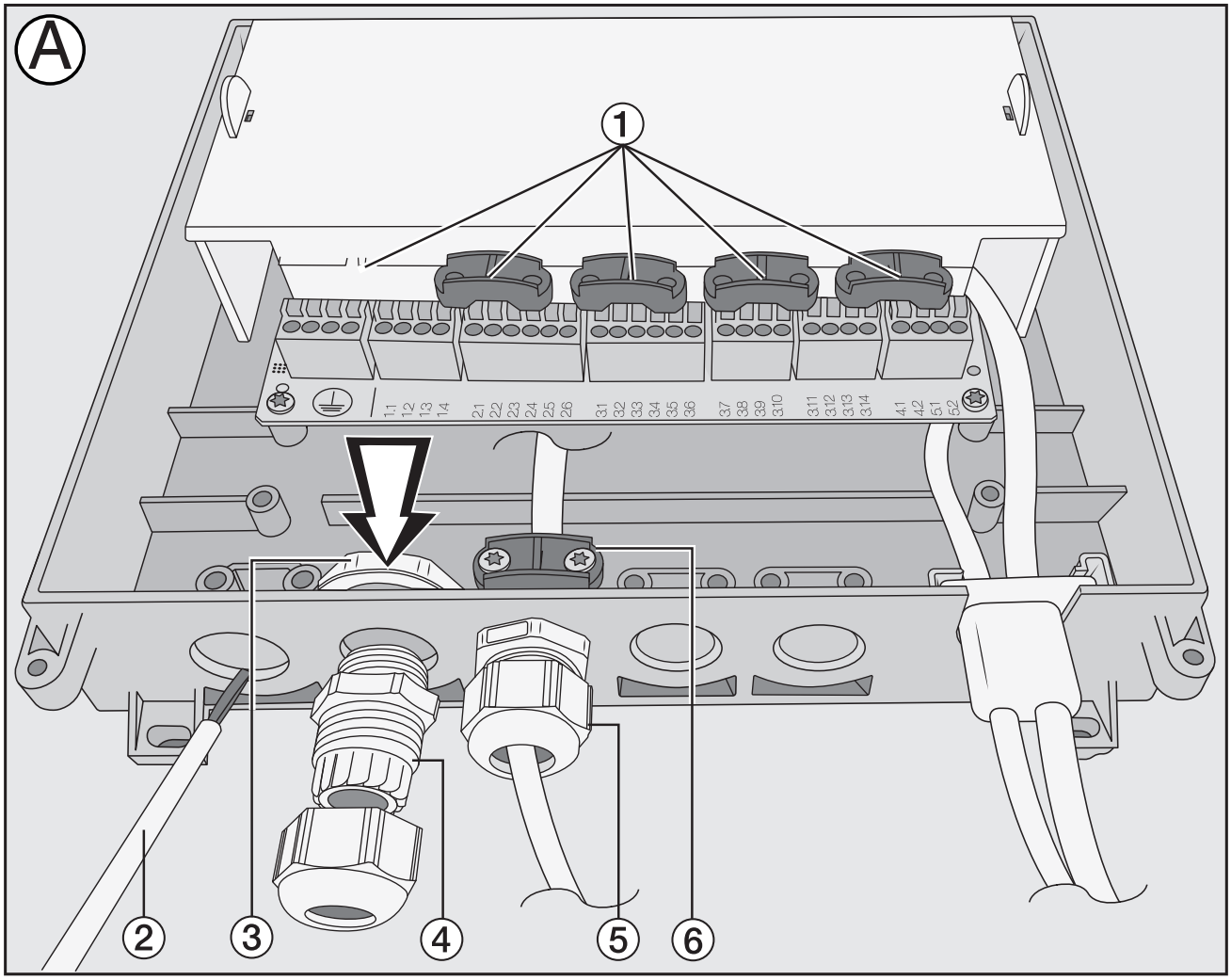
The Connector Box is supplied with mains voltage by the Miele Professional washing machine.

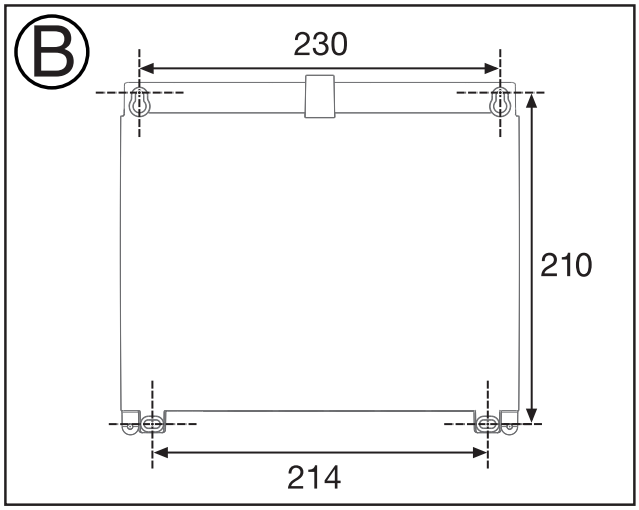
The Connector Box does not have an additional *On*/*Off* switch.

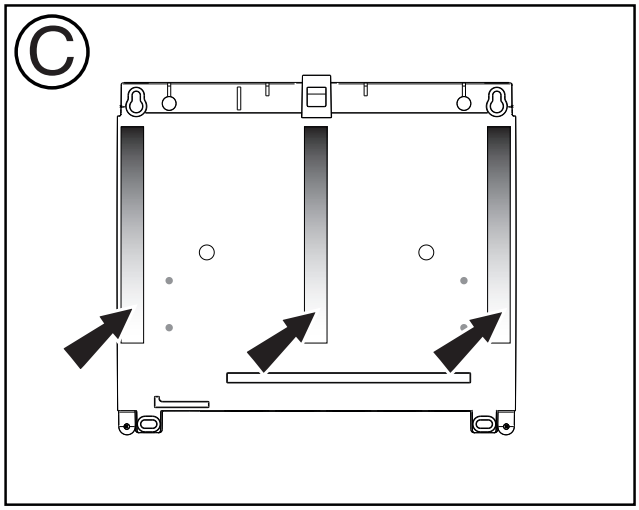
⚠ Damage to the Connector Box due to incorrect connection.
Excess current can damage the Connector Box.
The Connector Box must not be connected to an external voltage.

Technical data

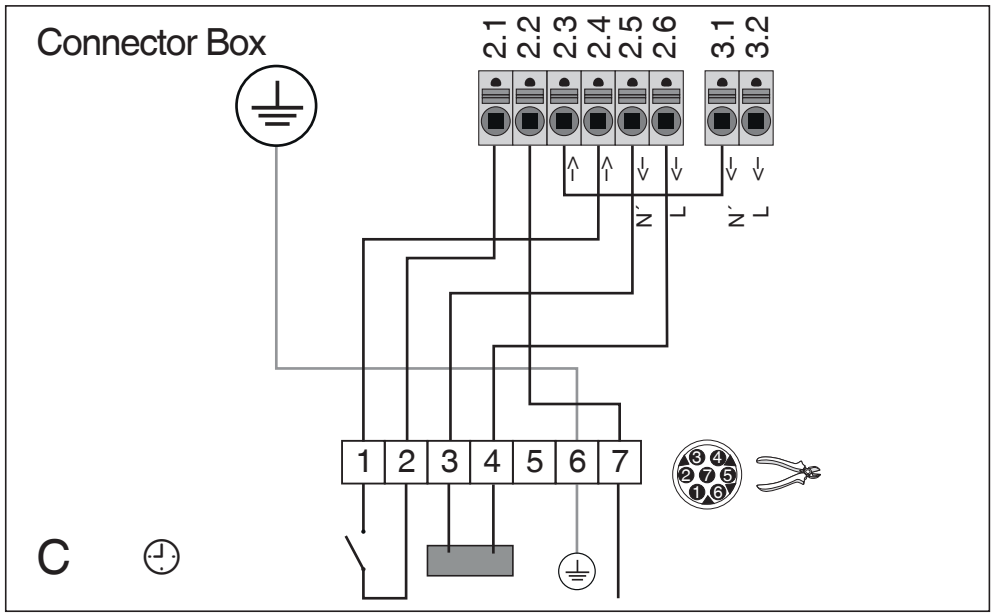
Voltage	200 V–240 V
Frequency	50 Hz/60 Hz
Temperature range for operation	2 °C–35 °C (36 °F–95 °F)


A
1
1.1 1.2 1.3 1.4
2.1 2.2 2.3 2.4 2.5 2.6
3.1 3.2 3.3 3.4 3.5 3.6
3.7 3.8 3.9 3.10
3.11 3.12 3.13 3.14
4.1 4.2
5.1 5.2
2
3
4
5
6

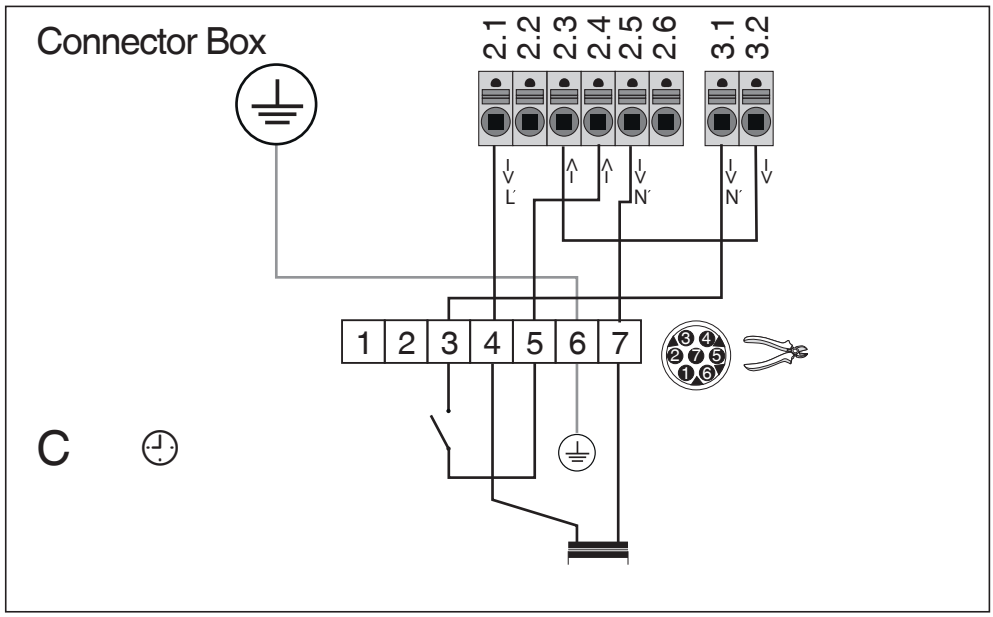

B
230
210
214


C

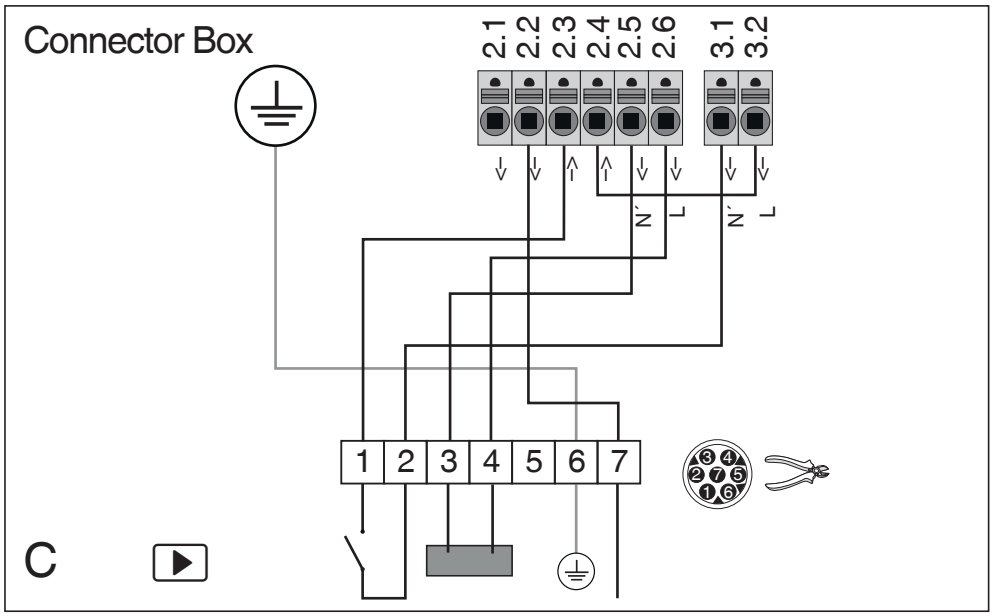
C4030, C4031, C4065, C4070, C4080



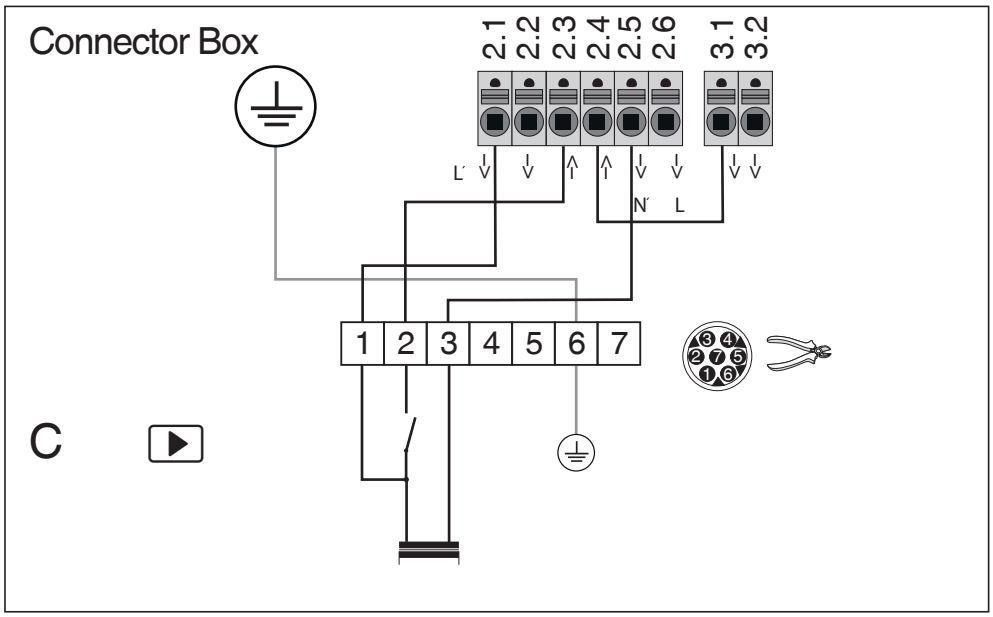
C5003



C4030, C4031, C4065, C4070, C4080



C4060, C5002, C5004



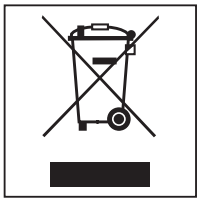
Bortskaffelse af emballagen

Emballagen beskytter connector-boksen mod transportskader. Emballagematerialerne er valgt ud fra miljø- og affaldstekniske hensyn og kan således genbruges.

Genbrug af emballagematerialerne sparer råstoffer og mindsker affaldsproblemerne. Bortskaf emballagen på genbrugsstationen.

Bortskaffelse af et gammelt produkt

Gamle elektriske og elektroniske produkter indeholder stadig værdifulde materialer. De indeholder imidlertid også bestemte stoffer, blandinger og komponenter, som er nødvendige for deres funktion og sikkerhed. Hvis disse bortskaffes sammen med husholdningsaffaldet eller behandles forkert, kan de skade den menneskelige sundhed og miljøet. Bortskaf derfor ikke det gamle produkt med husholdningsaffaldet.



Aflever i stedet for det gamle produkt på nærmeste officielle opsamlingssted for elektriske og elektroniske produkter eller på kommunens genbrugsstation. Det er ejerens eget ansvar at sørge for at fjerne eventuelle personrelaterede data fra det produkt, der skal bortskaffes. Sørg for, at det gamle produkt opbevares utilgængeligt for børn, indtil det fjernes.

Denne connector-boks opfylder de foreskrevne sikkerhedsbestemmelser. Uhensigtsmæssig brug kan dog medføre skader på personer og ting.

Læs først denne brugs- og monteringsanvisning til connector-boksen. Den indeholder vigtige oplysninger om sikkerhed, brug og vedligeholdelse af connector-boksen. Herved undgås skader på personer og produkt.

Gem venligst denne brugs- og monteringsanvisning, og giv den videre til en eventuel senere ejer.

Retningslinjer vedrørende brugen

▶ Denne connector-boks er udelukkende beregnet til etablering af forbindelse mellem en Miele Professional-maskine og ekstern hardware, fx en spidsbelastningsafbryder, et betalingssystem, en ekstra blæser, en ventilationsklap eller doseringspumper. Andre anvendelsesformål kan være farlige.
Miele hæfter ikke for skader, der er forårsaget af uhensigtsmæssig brug eller forkert betjening.

▶ Connector Box-boksen er udelukkende beregnet til anvendelse i kombination med Miele Professional maskiner med fabriksmonteret tilslutningsmodul.

Teknisk sikkerhed

▶ Tilslutning og montering af connector-boksen må kun udføres af Miele Service eller en anden uddannet fagmand, som har forudsætninger for at udføre monteringen korrekt.

▶ Kontroller connector-boksen for ydre, synlige skader inden indbygning. En beskadiget connector-boks må ikke installeres og tages i brug.

▶ Connector-boksen må ikke repareres i tilfælde af en defekt eller beskadigelse.
Udskift i tilfælde heraf connector-boksen med en ny.

▶ Connector-boksen er kun afbrudt elektrisk fra elnettet, når afbrydelsen af Miele Professional-maskinen er sket i henhold til angivelserne i brugs- og opstillingsanvisningen.

▶ Tilslutningsledningerne fra Miele Professional-maskinen til connector-boksen må ikke klemmes inde.

▶ Connector-boksen skal monteres på opstillingsstedet eller monteres med en speciel maskinfastgørelse til maskinen (ekstra tilbehør).

▶ Connector-boksen skal være frit tilgængelig efter vægfastgørelsen i tilfælde af service.

▶ Tilslutningsledningerne til connector-boksen skal monteres og anbringes forsvarligt.

▶ De medfølgende kabeltrækaflastninger og kabelforskruninger med kontramøtrikker skal anvendes til tilslutning af ekstern hardware.

Funktion

Connector-boksen kan anvendes til tilslutning af hardware fra Miele og andre udbydere til Miele Professional-maskinen. Ekstern hardware kan være betalingssystemer, doseringssystemer, er ved lsanlæg, tryksensorer, eksterne aftrækksklapper osv.

Connector-boksens funktioner:

Connector-boks kodning 1	Connector-boks kodning 2
- Dosering 1-6	- Dosering 7-12
- Melding om fyldningsgrad 1-6	- Melding om fyldningsgrad 7-12
- Gennemstrømningsmængde 1-3	- Gennemstrømningsmængde 4-6
- Spidsbelastningsafbrydelse	- Vandgenvinding
- Betalingssystem	- Program signaler
- Program signaler	

Der kan tilsluttes op til 2 bokse til en vaskemaskine. Vaskemaskinen er ved levering udstyret med en tilslutning til en connector-boks. Hvis der skal anvendes endnu en boks, skal kit APWM020 bestilles og installeres af Miele Service eller en anden uddannet fagmand.

Connector-boksen kan tilsluttes begge tilslutninger på vaskemaskinen, da kun kodningen afgør, hvilken connector-boks det handler om. I vaskemaskinen er tilslutningerne koblet parallelt og er hermed identiske med hensyn til signalering.

Connector-boksene skal være kodet til driften. Funktionen bestemmes af kodningen (se skemaerne Funktioner og strømbelastning kodning 1/2). Kodningen er også nødvendig ved anvendelse af en boks.

Connector-boksene kodes fra fabrikken med ledningsbroerne, der fra fabrikken er monteret i tilslutning 8.3. For funktionerne for connector-boks 1 (se skemaer Funktioner og strømbelastning kodning 1) sættes ledningsbroen i tilslutning 8.1. For funktionerne for connector-boks 2 (se skemaer Funktioner og strømbelastning kodning 2) sættes ledningsbroen i tilslutning 8.2.

Yderligere informationer om aktivering af maskinstyringen fremgår af brugsanvisningen til vaskemaskinen. (afsnit Brugerniveau)

Denne brugs- og monteringsanvisning er først og fremmest en vejledning til tilslutning af betalingssystemer. Tilslutninger fra anden ekstern hardware via betalingssystemerne skal foretages af autoriserede personer fra producenten af hardwaren.

Før montering af connector-boksen

- Connector-boksen skal monteres på opstillingsstedet af uddannede fagfolk. Se mål til boring af huller i væggen i afsnit , ill. Ⓑ på de sidste sider i denne brugs- og monteringsanvisning.
- Alternativt kan connector-boksen monteres på væggen med vedlagte klæbebånd. I tilfælde heraf skal man være opmærksom på følgende:
  – Klæbebåndene klæbes på bagsiden i siderne og i midten. Se afsnit , ill. Ⓒ på de sidste sider i denne brugs- og monteringsanvisning.
  – Væggens overflade skal være glat, fast, fedt- og støvfri.
  – Væggen må ikke være beklædt med strukturtapet eller -puds eller anden overflade, der ikke kan hæfte.
  – Maks. monteringshøjde er 1,50 m.

Connector-boksen må ikke installeres over åbne steder med vand, afløbsrender eller lignende systemer.

⚠ Risiko for elektrisk stød, hvis connector-boksen falder ned.
Connector-boksen kan falde ned i tilfælde af forkert eller defekt montering, hvilket kan give elektrisk stød.
En connector-boks, der er faldet ned, må ikke anvendes igen. Udskift connector-boksen med en ny, eller få den kontrolleret af Miele Service.

Installation udføres

Reparation må kun foretages af uddannede fagfolk under hensyntagen til gældende sikkerhedsbestemmelser.

- Afbryd Miele Professional-maskinen fra netspændingen.
- Fastgør connector-boksen på væggen med de 4 medfølgende skruer (4 x 40) og rawlplugs (S6). Se afsnit , ill. Ⓑ.
- Alternativt kan connector-boksen monteres på væggen med vedlagte klæbebånd. Se afsnit , ill. Ⓒ.
- Før forbindelsen fra connector-boksen til Miele Professional-maskinen og til den eksterne hardware (fx betalingssystem).

For tilsluttet eksternt hardware fra andre producenter skal tværsnit være min. 1,0 mm^2 ved en maks. ledningslængde på 2,50 m.

Montering af trækaflastningen til kablet

Tilslutningsledningen til den eksterne hardware skal fastgøres med kabelforskruninger og trækaflastning til kablet på connector-boksen. Se afsnit , ill. Ⓐ på de sidste sider i denne brugs- og monteringsanvisning.

- Tag låget af connector-boksen (2 skruer skrues ud).

- Tag en eller flere trækaflastninger til kablet ud ①.
- Stil connector-boksen på den smalle side, så de lukkede tilslutningshuller peger opad.
- Tryk med en skruetrækker den prægede, runde del i tilslutningshullet ② ud.

Tip: Tryk igennem noten flere steder hele vejen rundt med en skruetrækker.

- Før kontramøtrikken ind ③.
- Skru gevindstykket ④ på.

Tip: Skub skruekappen ⑤ ud over enden på tilslutningsledningen til den eksterne hardware.

- Før tilslutningsledningen gennem gevindstykket ind i connector-boksen.
- Stram skruekappen.

Skruekappen beskytter mod fugt og støv.

- Fastgør tilslutningsledningen med trækaflastningen til kablet ⑥.
- Før de nødvendige tilslutninger i connector-boksen til den eksterne hardware ud.
- Luk låget til connector-boksen (2 skruer skrues i).

Signaturforklaring til kabeltrækaflastning i afsnittet 🔧, ill. Ⓐ

① Kabeltrækaflastninger
② Tilslutningshul
③ Kontramøtrik
④ Gevindstykke
⑤ Skruekappe
⑥ Kabeltrækaflastning med skruer

Programmering

Efter installationen af connector-boksen skal der foretages indstillinger til de eksterne funktioner på den tilhørende Miele Professional-maskine.

Følg anvisningerne i brugs- og opstillingsanvisningen til Miele Professional-maskinen.

Til kommunikationen med ekstern hardware (betalingssystem, doseringsenhed...) er det nødvendigt at foretage indstillinger/programmeringer på Miele Professional-maskinen.

Strømbelastning ind- og udgange

Ved installationen skal man sørge for, at strømforbruget for de ekstrakomponenter, der skal tilsluttes, ikke overskrider den tilladte strøm og det samlede strømforbrug i nullederen.

Ved installationen skal man sørge for, at strømforsyningsnettets sikringsstrøm ikke overskrides ved tilslutning af vaskemaskinen/ tørretumbleren i kombination med connector-boksen og den tilsluttede hardware.

De enkelte ind- og udganges strømbelastning er beskrevet i afsnittet Skema over strømbelastning.

Koblingselementet til kontakt 3.3 er indstillet, så der kan tilkobles en blæser med frekvensomformer.

For tilsluttet eksternt hardware fra andre producenter skal tværsnit være min. 1,0 mm^2 ved en maks. ledningslængde på 2,50 m.

Reg. af tom beholder

Reg. af tom beholder tilsluttes klemmetilslutningerne 4.1 og 4.2. Disse overholder beskyttelseslavspænding (beskyttelsesklasse III).

Sensorproducentens angivelser skal overholdes.
De andre ledninger skal anbringes adstilt fra andre ledninger.

Installation af betalingssystem

Tidsstyret betalingssystem

Tilslutningsskemaet hertil findes i slutningen af denne brugs- og monteringsanvisning i afsnittet (Tidsstyret).

- C4030, C4031, C4065, C4070, C4080
- C5003

Impulsstyret betalingssystem

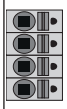
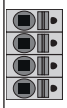
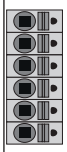
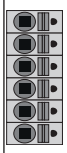
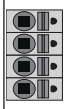
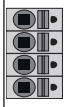
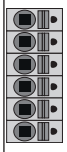
Tilslutningsskemaet hertil findes i slutningen af denne brugs- og monteringsanvisning i afsnittet (Impulsstyret).

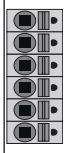
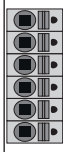
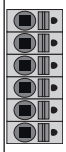
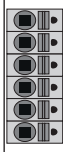
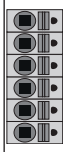
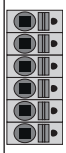
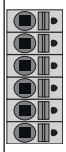
- C4030, C4031, C4060, C4065, C4070, C4080
- C5002, C5004

Signaturforklaring

	7-polet tilslutning af betalingssystemet
	Den 7-polede tilslutning af betalingssystemet kan fjernes for at tilslutte ledningerne direkte via klemtilslutningerne på connector-boksen.
Connector-boks	Klembøsninger på connector-boksen
C	Skematisk visning af den elektriske tilslutning i betalingssystemet
	Tidsstyret
	Impulsstyret
	Symbol til PE-tilslutning (jordforbindelse)

Skema Funktion og strømbelastning kodning 1

	Anvend-else	Klemme-til-slutning	Signal	Signal-retning	Strøm-belast-ning	Beskrivelse funktion
	Jordledning	PE	PE	—>		Jordledning
		PE	PE	—>		Jordledning
		PE	PE	—>		Jordledning
		PE	PE	—>		Jordledning
	Spidsbe-lastning	1.1	L'	—>	1,0 A	a Tilslutningsmelding udgang
		1.2	N'	—>	1,0 A	b Opvarmningskrav udgang
		1.3	L'	<—		c Varmefrigivelse indgang
		1.4	N'	—>		d Nulleder
	Betalingssystem	2.1	L'	—>	0,5 A	Produktet klar til brug
		2.2	L'	—>	0,5 A	Programstatus
		2.3	L'	<—		Signal impulstyret programkøb
		2.4	N'	<—		Signal tidsstyret programkøb
		2.5	N'	—>		Spændingsforsyning
		2.6	L'	—>		
	Dosering	3.1	N'	—>	1,0 A	Spændingsforsyning ekstern
		3.2	L'	—>	1,0 A	
		3.3	L'	—>	1,0 A	Dosering 1
		3.4	N'	—>	1,0 A	
		3.5	L'	—>	1,0 A	Dosering 2
		3.6	N'	—>	1,0 A	
	Dosering	3.7	L'	—>	1,0 A	Dosering 3
		3.8	N'	—>	1,0 A	
		3.9	L'	—>	1,0 A	Dosering 4
		3.10	N'	—>	1,0 A	
	Dosering	3.11	L'	—>	1,0 A	Dosering 5
		3.12	N'	—>	1,0 A	
		3.13	L'	—>	1,0 A	Dosering 6
		3.14	N'	—>	1,0 A	
	Programsignaler	4.1	L'	—>		Programstop udgang
		4.2	N'	—>		
		4.3	L'	—>		Blokslut udgang
		4.4	N'	—>		
		4.5	Koblings-signal	<—		Programstop indgang (spændingskilde)
		4.6	Reference-potentiale til 4.5	<—		

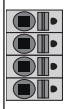
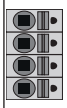
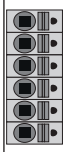
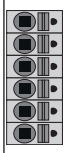
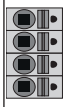
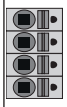
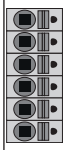
	Anvend-else	Klemme-til-slutning	Signal	Signal-retning	Strøm-belast-ning	Beskrivelse funktion
	Dosering	5.1	L'	—>		Melding om fyldningsgrad 1
		5.2	N'	<—		
		5.3	L'	—>		Melding om fyldningsgrad 2
		5.4	N'	<—		
		5.5	L'	—>		Melding om fyldningsgrad 3
		5.6	N'	<—		
	Dosering	5.7	L'	—>		Melding om fyldningsgrad 4
		5.8	N'	<—		
		5.9	L'	—>		Melding om fyldningsgrad 5
		5.10	N'	<—		
		5.11	L'	—>		Melding om fyldningsgrad 6
		5.12	N'	<—		
	Dosering	6.1	+13V	—>		Gennemstrømningsmængde Dos 1
		6.2	FM 1	<—		
		6.3	GND	—>		
		6.4	+13V	<—		Gennemstrømningsmængde Dos 2
		6.5	FM 2	—>		
		6.6	GND	<—		
	Dosering	6.7	+13V	—>		Gennemstrømningsmængde Dos 3
		6.8	FM 3	<—		
		6.9	GND	—>		
		6.10	+13V	<—		Gennemstrømningsmængde Dos 4
		6.11	FM 4	—>		
		6.12	GND	<—		
	Dosering	6.13	+13V	—>		Gennemstrømningsmængde Dos 5
		6.14	FM 5	<—		
		6.15	GND	—>		
		6.16	+13V	<—		Gennemstrømningsmængde Dos 6
		6.17	FM 6	—>		
		6.18	GND	<—		
	Vandtilløb	7.1	+13V	—>		Flowmeter 1
		7.2	FRZ 1	<—		
		7.3	GND	—>		
		7.4	+13V	<—		Flowmeter 2
		7.5	FRZ 2	—>		
		7.6	GND	<—		
	Vandtil-løb	7.7	+13V	—>		Flowmeter 3
		7.8	FRZ 3	<—		
		7.9	GND	—>		
	Kodning	8.1	COD 1	<—		Bro fra 8.1 til 8.3
		8.2	COD 2	<—		ikke programmeret
		8.3	GND	—>		Bro fra 8.1 til 8.3

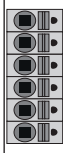
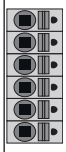
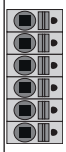
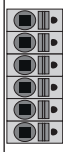
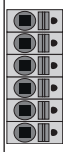
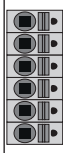
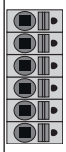
L' = koblet fase, N' = koblet nulleder

* Se afsnittet „Strømbelastning for ind-/udgange“

Elektronikkens samlede strømbelastning: Se afsnittet "Installation“.

Skema Funktion og strømbelastning kodning 2

	Anvend-else	Klemme-til-slutning	Signal	Signal-retning	Strøm-belast-ning	Beskrivelse funktion
	Jordledning	PE	PE	—>		Jordledning
		PE	PE	—>		
		PE	PE	—>		
		PE	PE	—>		
	WRG	1.1	L'	—>	1,0 A	WRG pumpe TILKOBLET
		1.2	N'	—>	0,5 A	WRG ventil
		1.3	L'	<—		ikke programmeret
		1.4	N'	—>		ikke programmeret
	WRG	2.1	L'	—>	0,5 A	WRG afløb
		2.2	L'	—>	0,5 A	WRG tilløb
		2.3	L'	<—		ikke programmeret
		2.4	N'	<—		WRG pos. lukket
		2.5	N'	—>		ikke programmeret
		2.6	L'	—>		ikke programmeret
	Dosering	3.1	N'	—>	1,0 A	Spændingsforsyning ekstern
		3.2	L'	—>	1,0 A	
		3.3	L'	—>	1,0 A	Dosering 7
		3.4	N'	—>	1,0 A	
		3.5	L'	—>	1,0 A	Dosering 8
		3.6	N'	—>	1,0 A	
	Dosering	3.7	L'	—>	1,0 A	Dosering 9
		3.8	N'	—>	1,0 A	
		3.9	L'	—>	1,0 A	Dosering 10
		3.10	N'	—>	1,0 A	
	Dosering	3.11	L'	—>	1,0 A	Dosering 11
		3.12	N'	—>	1,0 A	
		3.13	L'	—>	1,0 A	Dosering 12
		3.14	N'	—>	1,0 A	
	Programsignaler	4.1	L'	—>		ikke programmeret
		4.2	N'	—>		
		4.3	L'	—>		ikke programmeret
		4.4	N'	—>		
		4.5	Koblings-signal	<—		ikke programmeret
		4.6	Reference-potentiale til 4.5	<—		

	Anvend-else	Klemme-til-slutning	Signal	Signal-retning	Strøm-belast-ning	Beskrivelse funktion
	Dosering	5.1	L'	—>		Melding om fyldningsgrad 7
		5.2	N'	<—		
		5.3	L'	—>		Melding om fyldningsgrad 8
		5.4	N'	<—		
		5.5	L'	—>		Melding om fyldningsgrad 9
		5.6	N'	<—		
	Dosering	5.7	L'	—>		Melding om fyldningsgrad 10
		5.8	N'	<—		
		5.9	L'	—>		Melding om fyldningsgrad 11
		5.10	N'	<—		
		5.11	L'	—>		Melding om fyldningsgrad 12
		5.12	N'	<—		
	Dosering	6.1	+13V	—>		Gennemstrømningsmængde Dos 7
		6.2	FM 1	<—		
		6.3	GND	—>		
		6.4	+13V	<—		Gennemstrømningsmængde Dos 8
		6.5	FM 2	—>		
		6.6	GND	<—		
	Dosering	6.7	+13V	—>		Gennemstrømningsmængde Dos 9
		6.8	FM 3	<—		
		6.9	GND	—>		
		6.10	+13V	<—		Gennemstrømningsmængde Dos 10
		6.11	FM 4	—>		
		6.12	GND	<—		
	Dosering	6.13	+13V	—>		Gennemstrømningsmængde Dos 11
		6.14	FM 5	<—		
		6.15	GND	—>		
		6.16	+13V	<—		Gennemstrømningsmængde Dos 12
		6.17	FM 6	—>		
		6.18	GND	<—		
	Vandtilløb	7.1	+13V	—>		Flowmeter 4
		7.2	FRZ 1	<—		
		7.3	GND	—>		
		7.4	+13V	<—		Flowmeter 5
		7.5	FRZ 2	—>		
		7.6	GND	<—		
	Vandtil-løb	7.7	+13V	—>		Flowmeter 6
		7.8	FRZ 3	<—		
		7.9	GND	—>		
	Kodning	8.1	Kode 1	<—		ikke programmeret
		8.2	Kode 2	<—		Bro fra 8.2 til 8.3
		8.3	GND	—>		Bro fra 8.2 til 8.3

L' = koblet fase, N' = koblet nulleder

* Se afsnittet „Strømbelastning for ind-/udgange“

Elektronikkens samlede strømbelastning: Se afsnittet "Installation“.

Eltilslutning

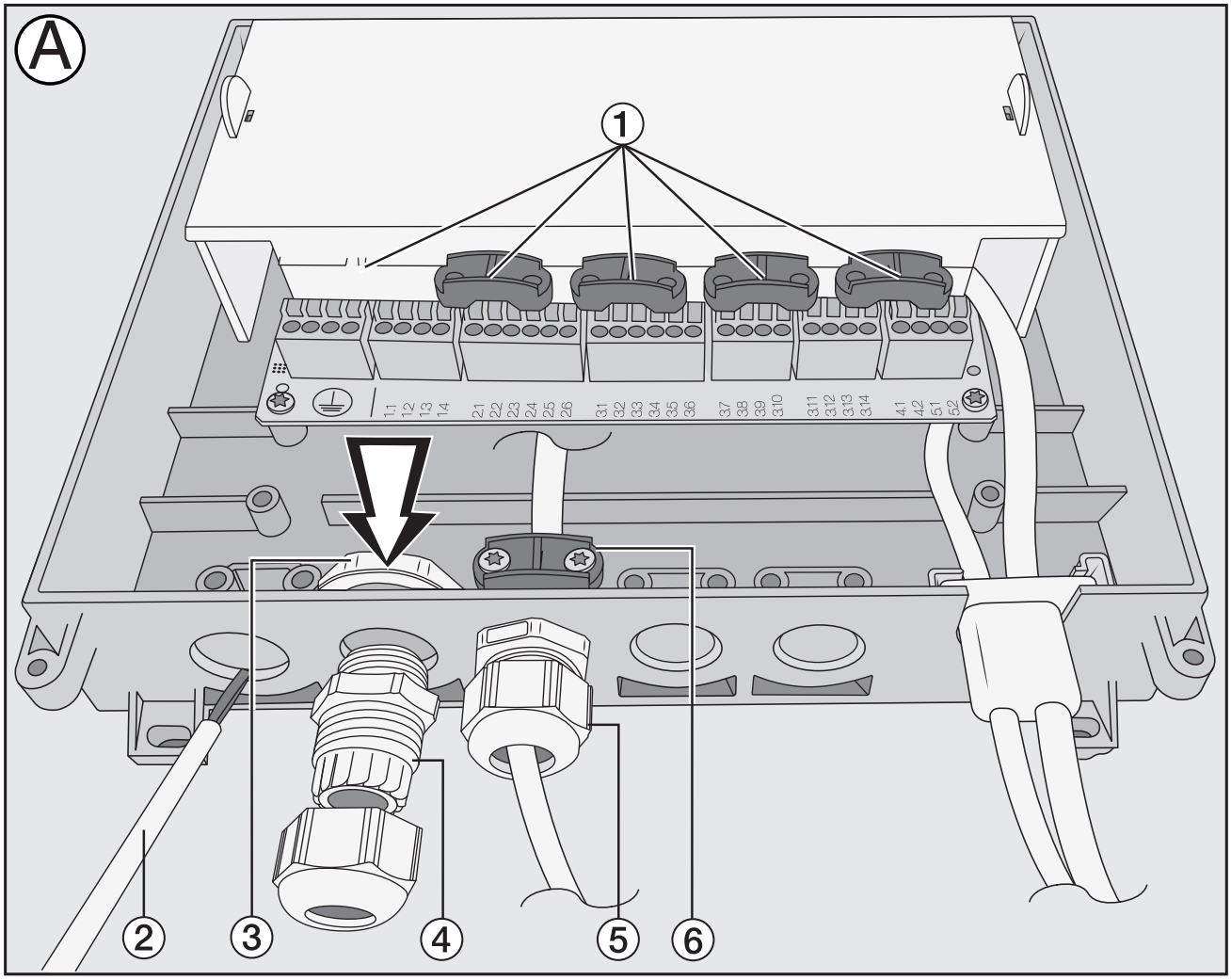
Connector-boksen forsynes med netspænding via Miele Professional-maskinen.

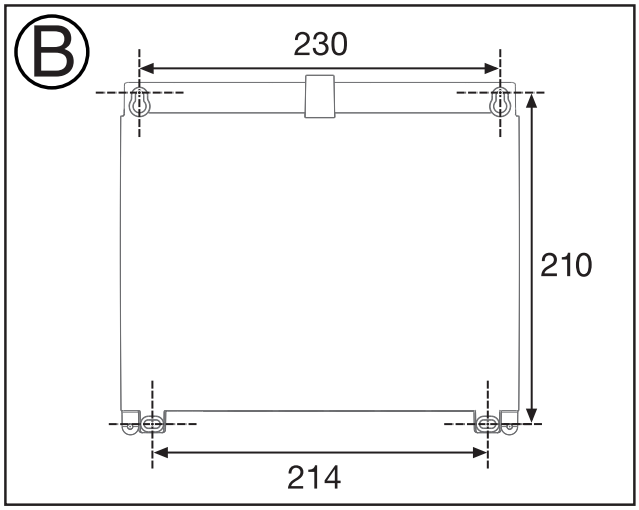
Connector-boksen har ingen ekstra *tænd*/*sluk*-knap.

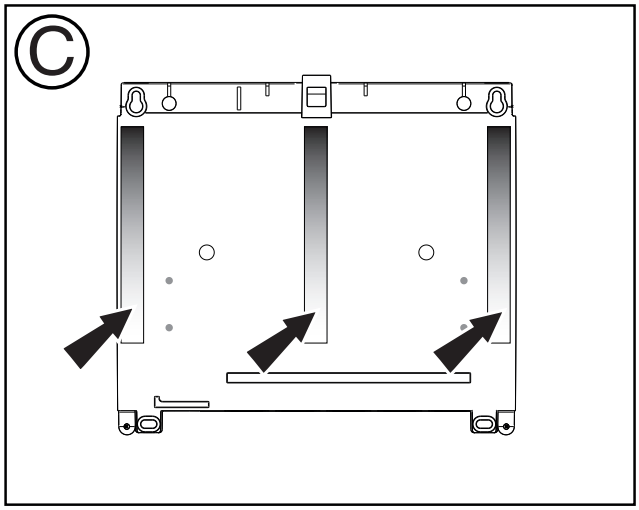
⚠ Risiko for beskadigelse af connector-boksen på grund af forkert tilslutning.
Connector-boksen kan beskadiges af overspænding.
Der er ikke tilladt at koble connector-boksen med ekstern spænding.

Tekniske data

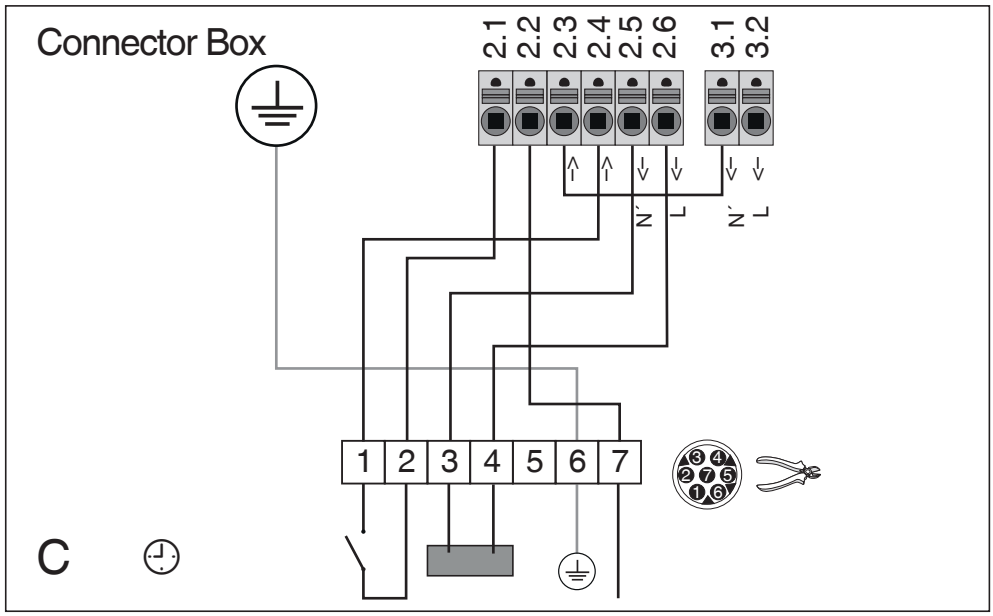
Spænding	200 V–240 V
Frekvens	50 Hz/60 Hz
Temperatur-område drift	2 °C – 35 °C


A
1
1.1 1.2 1.3 1.4
2.1 2.2 2.3 2.4 2.5 2.6
3.1 3.2 3.3 3.4 3.5 3.6
3.7 3.8 3.9 3.10
3.11 3.12 3.13 3.14
4.1 4.2
5.1 5.2
2
3
4
5
6

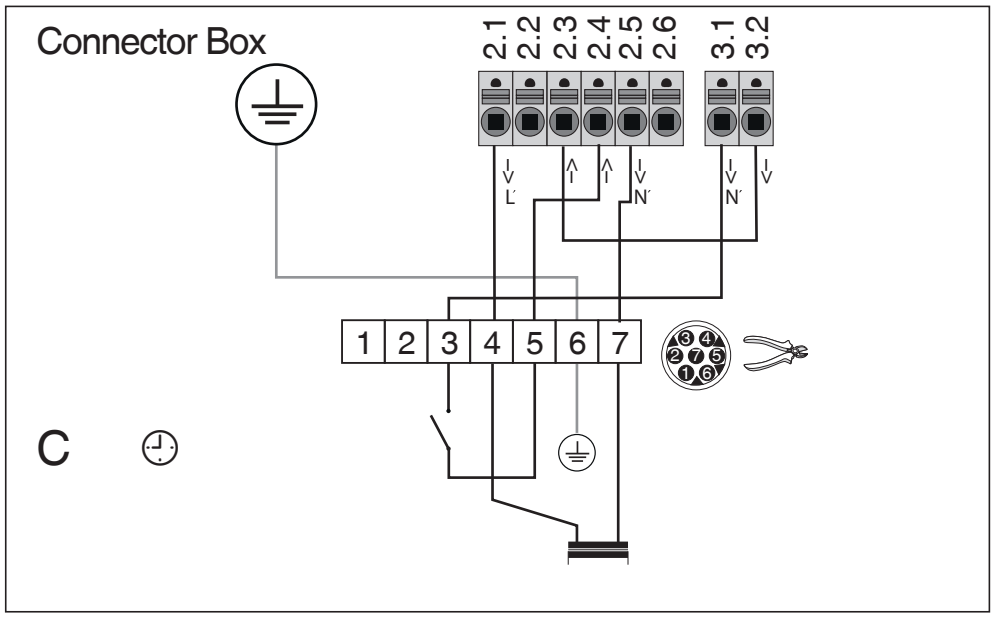

B
230
210
214


C

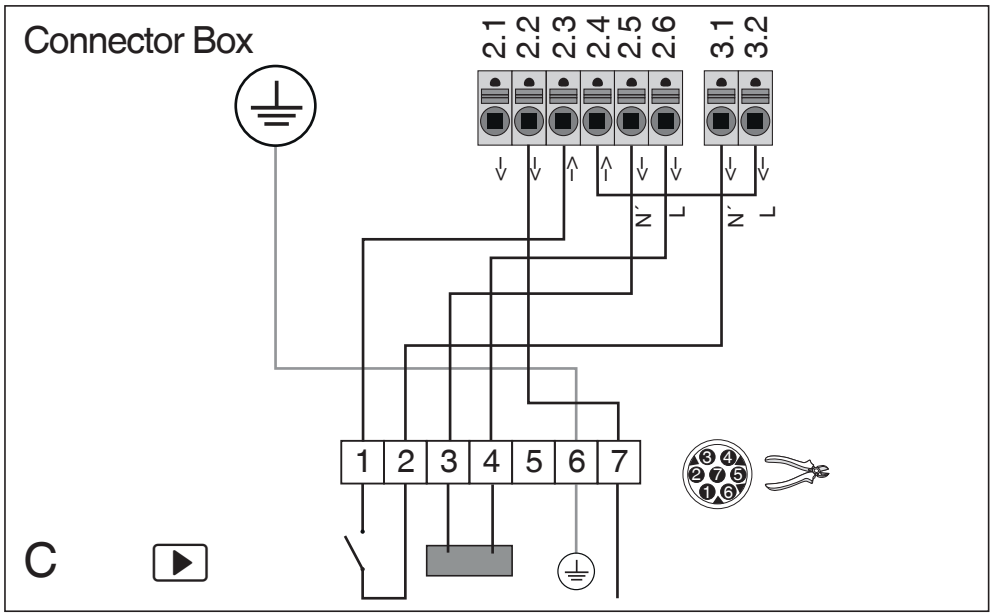
C4030, C4031, C4065, C4070, C4080



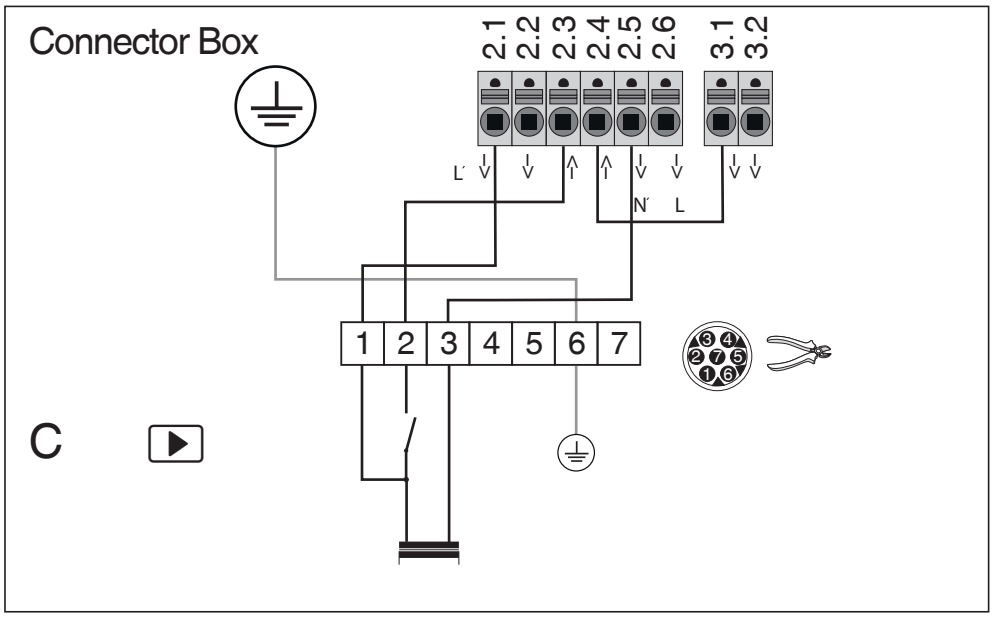
C5003



C4030, C4031, C4065, C4070, C4080



C4060, C5002, C5004



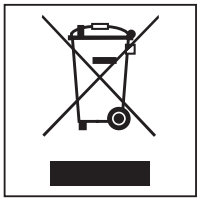
Eliminación del embalaje de transporte

El embalaje evita que se produzcan daños en la Connector-Box durante el transporte. Los materiales del embalaje se han seleccionado siguiendo criterios ecológicos y en función de su posterior tratamiento en plantas de reciclaje.

La devolución del embalaje al ciclo de reciclaje contribuye al ahorro de materias primas y reduce la generación de residuos. Su distribuidor se hace cargo del embalaje.

Reciclaje de aparatos inservibles

Los aparatos eléctricos y electrónicos llevan valiosos materiales. También contienen determinadas sustancias, mezclas y componentes necesarios para el funcionamiento y la seguridad de estos aparatos. El desecharlos en la basura doméstica o el uso indebido de los mismos puede resultar perjudicial para la salud y para el medio ambiente. Por este motivo, en ningún caso elimine su aparato inservible a través de la basura doméstica.



En su lugar, utilice los puntos de recogida oficiales pertinentes para la entrega y el reciclaje de los aparatos eléctricos y electrónicos en su comunidad, distribuidor o en Miele. Usted es el responsable legal de la eliminación de los posibles datos personales contenidos en el aparato inservible. Guarde el aparato inservible fuera del alcance de los niños hasta el momento de transportarlo al desguace.

Esta Connector-Box cumple todas las normas de seguridad vigentes. El manejo indebido puede causar daños materiales y provocar lesiones personales y daños materiales.

Lea en primer lugar las instrucciones de manejo y montaje de la Connector-Box. Estas le ofrecerán indicaciones importantes en materia de seguridad, consumo y mantenimiento de la Connector-Box. De esta forma se protegerá a sí mismo y evitará daños en el aparato.

Conserve las presentes Instrucciones de manejo y de montaje y entrégueselas al nuevo propietario en caso de venta posterior del aparato.

Uso apropiado

▶ La Connector-Box está destinada exclusivamente a establecer una conexión entre la máquina Miele Professional y el hardware externo, como p. ej. una desconexión por un pico de carga, un aparato de cobro con monedas, un ventilador adicional, una tapa de salida de aire o bombas dosificadoras. Cualquier otro tipo de utilización podría ser peligroso.
Miele no se hace responsable de daños ocasionados por el uso indebido o por el manejo incorrecto del aparato.

▶ La Connector Box-Box deberá emplearse sólo para su uso en aparatos de Miele Professional con un acoplamiento equipado de fábrica..

Seguridad técnica

▶ Únicamente un equipo de electricistas que asegure los requisitos para el correcto uso podrá encargarse de la instalación y montaje de la Connector-Box.

▶ Antes de instalar la Connector-Box, compruebe si presenta daños externos visibles. No se instalará la Connector-Box si está dañado y tampoco se pondrá en funcionamiento.

▶ Si la Connector-Box es defectuosa o está dañada, no debe ser reparada.
En estos casos, reemplácela por otra nueva.

▶ La Connector-Box se desconecta únicamente de la red eléctrica si al separarla de la máquina de Miele Professional se siguen las indicaciones de las instrucciones de manejo y emplazamiento.

▶ Los cables de conexión de la máquina de Miele Professional a la Connector-Box no deberán quedar pillados.

▶ La Connector-Box debe montarse en el lugar de instalación o con un anclaje de máquinas especial (accesorio especial) en la máquina.

▶ Una vez montada la pared, la Connector-Box debe ser accesible en caso de intervención del servicio.

▶ El montaje y tendido de los cables de conexión a la Connector-Box debe realizarse de forma profesional.

▶ Deberán utilizarse los prensacables y uniones roscadas de cable suministrados por la fábrica con las contratuercas a la conexión de hardware externo.

Funcionamiento

Con la Connector-Box se puede conectar el hardware externo de Miele y de otros fabricantes a la máquina Miele Professional. El hardware externo pueden ser, p. ej. los sistemas de pago, sistemas de dosificación, sensores de presión, tapas externas de salida de aire, etc.

Funciones de las Connector-Box:

Connector Box Codificación 1	Connector Box Codificación 2
- Dosificación 1–6	- Dosificación 7–12
- Indicación de falta de producto 1–6	- Indicación de falta de producto 7–12
- Caudal 1–3	- Caudal 4–6
- Desconexión por carga de pico	- Recuperación de agua
- Sistema de cobro	- Señales de programa
- Señales de programa	

Se pueden conectar hasta 2 Box en una lavadora. La lavadora está equipada de fábrica con una conexión para una Connector Box. Para poder usar una segunda Box debe pedir el kit APWM020 y este debe ser instalado por un electricista.

Las Connector Box se pueden conectar en ambas conexiones de la lavadora, pues lo único que decide de cuál de las Connector Box se trata es la codificación. En la lavadora las conexiones están conmutadas en paralelo y por lo tanto las señales son idénticas.

Para funcionar las Connector Box deben ser codificadas. Con la codificación se determina la función (véanse las tablas de función y corriente máxima codificación 1/2). La codificación también es necesaria cuando se usa solo una Box.

Las Connector Box se codifican con el puente insertado en la conexión 8.3 de fábrica. Para las funciones de la Connector Box 1 (véanse las tablas de función y corriente máxima codificación 1), el puente se inserta en la conexión 8.1. Para las funciones de la Connector Box 2 (véanse las tablas de función y corriente máxima codificación 2), el puente se inserta en la conexión 8.2.

Más información sobre la activación del control de la máquina en las instrucciones de manejo de la lavadora. (capítulo nivel del programador)

Estas instrucciones de manejo y montaje son principalmente unas instrucciones para conectar los sistemas recaudadores. Personal del servicio Post-venta del fabricante del hardware se encargará de realizar las conexiones de otros hardware externos adicionales al aparato recaudador.

Antes de la fijación de la Connector Box

- La Connector-Box se debe atornillar correctamente en el lugar de instalación. Las medidas de los orificios de la pared se encuentran en el capítulo «🔧», figura Ⓑ al final de estas instrucciones de uso y montaje.
- Como alternativa, se puede fijar la Connector-Box a la pared con las tiras adhesivas incluidas. Para ello tenga en cuenta:
  - Las tiras adhesivas se pegan en la parte exterior, en el centro de la parte trasera. Véase el capítulo «🔧», figura Ⓒ al final de estas instrucciones de uso y montaje.
  - La superficie de la pared debe ser lisa, firme y no tener grasa ni polvo.
  - En la pared no debe haber papel pintado, enlucido texturizado o cualquier otro acabado con malas propiedades de fijación.
  - La altura máxima de montaje es de 1,50 m.

La Connector-Box no se debe instalar sobre zonas de aguas abiertas, canales de desagüe o sistemas similares.

⚠ Peligro de descargas eléctricas por la caída de la Connector-Box.
La Connector-Box se puede caer por una fijación incorrecta o defectuosa, lo que puede provocar descargas eléctricas.
Si la Connector-Box se cae, no se puede usar de nuevo. Sustitúyala por una nueva o encargue al Servicio Post-venta de Miele que la compruebe.

Ejecutar la instalación

Los trabajos de reparación serán llevados a cabo exclusivamente por un electricista autorizado, ateniéndose estrictamente a las normas de seguridad vigentes.

- Desconecte la máquina Miele Professional de la tensión de red.
- Fije la Connector-Box a la pared con los 4 tornillos adjuntos (4 x 40) y topes (S6). Véase el capítulo «🔧», figura Ⓑ.
- Como alternativa, puede fijar la Connector-Box a la pared con las tiras adhesivas incluidas. Véase el capítulo «🔧», figura Ⓒ.
- Conecte la Connector-Box a la máquina de Miele Professional y al hardware externo (p. ej. aparato recaudador).

Para el hardware externo conectado de otros fabricantes, no debe excederse la sección mínima de 1,0 mm^2 con una longitud de la conducción máxima de 2,50 m.

Montar el prensacables

El cable de conexión del hardware externo debe fijarse a la Connector-Box con las uniones roscadas de cable y los prensacables. Véase el capítulo «🔧», figura Ⓐ al final de estas instrucciones de uso y montaje.

- Extraiga la tapa de la Connector-Box (desenroscar 2 tornillos).
- Retire uno o varios prensacables ①.
- Coloque la Connector-Box en el lado estrecho, de modo que los orificios de conexión cerrados se encuentren arriba.
- Extraiga la pieza redonda y en relieve del orificio de conexión ② con un destornillador.

Consejo: Atraviese la ranura continua en varias posiciones con el destornillador.

- Inserte la contratuerca ③.
- Desatornille la pieza roscada ④.

Consejo: Empuje la tapa roscada ⑤ por el extremo del cable de conexión del hardware externo.

- Pase el cable de conexión por la pieza roscada en la Connector-Box.
- Apriete la tapa roscada.

La tapa roscada protege de la humedad y del polvo.

- Fije el cable de conexión con el prensacables ⑥.
- Efectúe las conexiones necesarias en la Connector-Box para el hardware externo.
- Cierre la tapa de la Connector-Box (enroscar 2 tornillos).

Leyenda para el prensacables en el capítulo «🔧», fig. Ⓐ

① Prensacables
② Orificio de conexión
③ Contratuerca
④ Pieza roscada
⑤ Tapa roscada
⑥ Prensacables con tornillos

Programación

Tras la instalación de la Connector-Box deberán llevarse a cabo los ajustes para las funciones externas en las máquinas Miele Professional correspondientes.

Siga las instrucciones de manejo y emplazamiento para las máquinas de Miele Professional.

Para la debida comunicación con el hardware externo (aparato recaudador, unidad de dosificación...) es necesario realizar los ajustes/programaciones en las máquinas de Miele Professional.

Corriente máxima de las entradas y salidas

En la instalación deberá tenerse en cuenta que el consumo de corriente de los componentes adicionales que va a conectar no sobrepase las frecuencias simples admitidas y el consumo total de corriente en el conductor neutro.

Durante la instalación se ha de prestar atención a que no se sobrepase la corriente de seguridad de la red de tensión con la conexión de la lavadora/secadora en combinación con la Connector-Box y el hardware conectado.

Las entradas y salidas se disponen ampliamente para las corrientes, tal y como se describe en el apartado «Tabla de corriente máxima».

El elemento de conmutación para el contacto 3.3 está diseñado de forma que también se pueda conectar un ventilador con convertidor de frecuencia.

Para el hardware externo conectado de otros fabricantes, no debe excederse la sección mínima de 1,0 mm^2 con una longitud de la conducción máxima de 2,50 m.

Detección de vacío

⟐ La detección de vacío se conecta a las asignaciones de la fijación 4.1 y 4.2. Estos corresponden a la tensión baja de protección (clase de protección III).

Deberán respetarse las directrices del proveedor de sensores.
Los cables deben tenderse por separado de todos los demás cables.

Instalar el sistema de cobro

Aparato recaudador en funcionamiento temporal

Encontrará el esquema de conexión al final de estas instrucciones de manejo y montaje en el capítulo ◷ («Timed operation»).

- C4030, C4031, C4065, C4070, C4080
- C5003

Aparato recaudador en el funcionamiento de programa

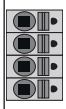
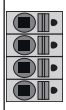
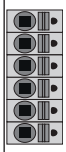
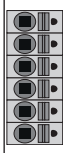
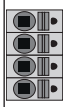
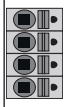
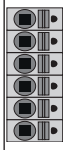
Encontrará el esquema de conexión al final de estas instrucciones de manejo y montaje en el capítulo ▶ («Operación de programas»).

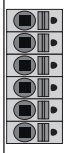
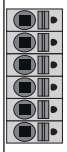
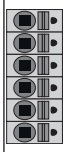
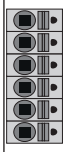
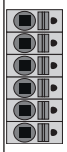
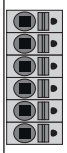
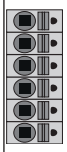
- C4030, C4031, C4060, C4065, C4070, C4080
- C5002, C5004

Leyenda

	Acoplamiento de 7 polos del aparato recaudador
	El acoplamiento de 7 polos del aparato recaudador se puede retirar para conectar los cables directamente a través de los bornes de la Connector-Box.
Connector Box	Casquillos de fijación de la Connector Box
C	Representación esquemática de la conexión eléctrica en el aparato recaudador
	Funcionamiento temporal
	Funcionamiento de programa
	Símbolo para los bornes PE (conexión a tierra)

Tabla de función y corriente máxima codificación 1

	Apl icación	Asignación de la fijación	Señal	Dirección de la señal	Corrien te máxima	Descripción de la función
	Conductor de tierra	PE	PE	—>		Conductor de tierra
		PE	PE	—>		Conductor de tierra
		PE	PE	—>		Conductor de tierra
		PE	PE	—>		Conductor de tierra
	Carga de pico	1.1	L'	—>	1,0 A	a Mensaje de conexión salida
		1.2	N'	—>	1,0 A	b Requerimiento de calefacción salida
		1.3	L'	<—		c Autorización de la calefacción entrada
		1.4	N'	—>		d Conductor neutro
	Sistema de cobro	2.1	L'	—>	0,5 A	Aparato listo para el funcionamiento
		2.2	L'	—>	0,5 A	Estado de programa
		2.3	L'	<—		Impulso de compra del programa
		2.4	N'	<—		Señal de compra de tiempo
		2.5	N'	—>		Alimentación de tensión
		2.6	L'	—>		
	Dosificación	3.1	N'	—>	1,0 A	Alimentación de tensión ext.
		3.2	L'	—>	1,0 A	
		3.3	L'	—>	1,0 A	Dosificación 1
		3.4	N'	—>	1,0 A	
		3.5	L'	—>	1,0 A	Dosificación 2
		3.6	N'	—>	1,0 A	
	Dosifica-ción	3.7	L'	—>	1,0 A	Dosificación 3
		3.8	N'	—>	1,0 A	
		3.9	L'	—>	1,0 A	Dosificación 4
		3.10	N'	—>	1,0 A	
	Dosifica-ción	3.11	L'	—>	1,0 A	Dosificación 5
		3.12	N'	—>	1,0 A	
		3.13	L'	—>	1,0 A	Dosificación 6
		3.14	N'	—>	1,0 A	
	Señales del programa	4.1	L'	—>		Parada de programa salida
		4.2	N'	—>		
		4.3	L'	—>		Fin de bloque salida
		4.4	N'	—>		
		4.5	Señal de conmuta-ción	<—		Parada de programa entrada (fuente de tensión)
		4.6	Potencial de referencia para 4.5	<—		

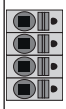
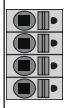
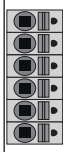
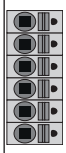
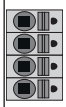
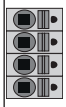
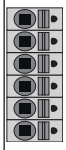
	Aplicación	Asignación de la fijación	Señal	Dirección de la señal	Corriente máxima	Descripción de la función
	Dosificación	5.1	L'	—>		Indicación de falta de producto 1
		5.2	N'	<—		
		5.3	L'	—>		Indicación de falta de producto 2
		5.4	N'	<—		
		5.5	L'	—>		Indicación de falta de producto 3
		5.6	N'	<—		
	Dosificación	5.7	L'	—>		Indicación de falta de producto 4
		5.8	N'	<—		
		5.9	L'	—>		Indicación de falta de producto 5
		5.10	N'	<—		
		5.11	L'	—>		Indicación de falta de producto 6
		5.12	N'	<—		
	Dosificación	6.1	+13 V	—>		Caudal Dos 1
		6.2	FM 1	<—		
		6.3	GND	—>		
		6.4	+13 V	<—		Caudal Dos 2
		6.5	FM 2	—>		
		6.6	GND	<—		
	Dosificación	6.7	+13 V	—>		Caudal Dos 3
		6.8	FM 3	<—		
		6.9	GND	—>		
		6.10	+13 V	<—		Caudal Dos 4
		6.11	FM 4	—>		
		6.12	GND	<—		
	Dosificación	6.13	+13 V	—>		Caudal Dos 5
		6.14	FM 5	<—		
		6.15	GND	—>		
		6.16	+13 V	<—		Caudal Dos 6
		6.17	FM 6	—>		
		6.18	GND	<—		
	Entrada de agua	7.1	+13 V	—>		Contador de rueda móvil 1
		7.2	FRZ 1	<—		
		7.3	GND	—>		
		7.4	+13 V	<—		Contador de rueda móvil 2
		7.5	FRZ 2	—>		
		7.6	GND	<—		
	Entrada de agua	7.7	+13 V	—>		Contador de rueda móvil 3
		7.8	FRZ 3	<—		
		7.9	GND	—>		
	Codificación	8.1	COD 1	<—		Puente de 8.1 hacia 8.3
		8.2	COD 2	<—		sin asignar
		8.3	GND	—>		Puente de 8.1 hacia 8.3

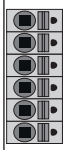
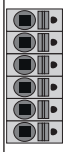
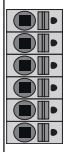
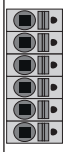
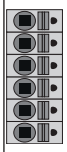
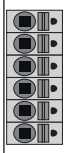
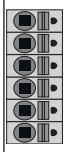
L' = fase conectada, N' = conductor neutro conectado

* véase el apartado «Corriente máxima de las entradas y salidas»

Carga de corriente total de la electrónica: véase el apartado «Instalación».

Tabla de función y corriente máxima codificación 2

	Aplicación	Asignación de la fijación	Señal	Dirección de la señal	Corriente máxima	Descripción de la función
	Conductor de tierra	PE	PE	—>		Conductor de tierra
		PE	PE	—>		
		PE	PE	—>		
		PE	PE	—>		
	WGR	1.1	L'	—>	1,0 A	Bomba de WRG ON
		1.2	N'	—>	0,5 A	Válvula WRG
		1.3	L'	<—		sin asignar
		1.4	N'	—>		sin asignar
	WGR	2.1	L'	—>	0,5 A	Desagüe WRG
		2.2	L'	—>	0,5 A	Entrada de agua WRG
		2.3	L'	<—		sin asignar
		2.4	N'	<—		Pos. WRG cerrada
		2.5	N'	—>		sin asignar
		2.6	L'	—>		sin asignar
	Dosificación	3.1	N'	—>	1,0 A	Alimentación de tensión ext.
		3.2	L'	—>	1,0 A	
		3.3	L'	—>	1,0 A	Dosificación 7
		3.4	N'	—>	1,0 A	
		3.5	L'	—>	1,0 A	Dosificación 8
		3.6	N'	—>	1,0 A	
	Dosificación	3.7	L'	—>	1,0 A	Dosificación 9
		3.8	N'	—>	1,0 A	
		3.9	L'	—>	1,0 A	Dosificación 10
		3.10	N'	—>	1,0 A	
	Dosificación	3.11	L'	—>	1,0 A	Dosificación 11
		3.12	N'	—>	1,0 A	
		3.13	L'	—>	1,0 A	Dosificación 12
		3.14	N'	—>	1,0 A	
	Señales del programa	4.1	L'	—>		sin asignar
		4.2	N'	—>		
		4.3	L'	—>		sin asignar
		4.4	N'	—>		
		4.5	Señal de conmutación	<—		sin asignar
		4.6	Potencial de referencia para 4.5	<—		

	Aplicación	Asignación de la fijación	Señal	Dirección de la señal	Corriente máxima	Descripción de la función
	Dosificación	5.1	L'	—>		Indicación de falta de producto 7
		5.2	N'	<—		
		5.3	L'	—>		Indicación de falta de producto 8
		5.4	N'	<—		
		5.5	L'	—>		Indicación de falta de producto 9
		5.6	N'	<—		
	Dosificación	5.7	L'	—>		Indicación de falta de producto 10
		5.8	N'	<—		
		5.9	L'	—>		Indicación de falta de producto 11
		5.10	N'	<—		
		5.11	L'	—>		Indicación de falta de producto 12
		5.12	N'	<—		
	Dosificación	6.1	+13 V	—>		Caudal Dos 7
		6.2	FM 1	<—		
		6.3	GND	—>		
		6.4	+13 V	<—		Caudal Dos 8
		6.5	FM 2	—>		
		6.6	GND	<—		
	Dosificación	6.7	+13 V	—>		Caudal Dos 9
		6.8	FM 3	<—		
		6.9	GND	—>		
		6.10	+13 V	<—		Caudal Dos 10
		6.11	FM 4	—>		
		6.12	GND	<—		
	Dosificación	6.13	+13 V	—>		Caudal Dos 11
		6.14	FM 5	<—		
		6.15	GND	—>		
		6.16	+13 V	<—		Caudal Dos 12
		6.17	FM 6	—>		
		6.18	GND	<—		
	Entrada de agua	7.1	+13 V	—>		Contador de rueda móvil 4
		7.2	FRZ 1	<—		
		7.3	GND	—>		
		7.4	+13 V	<—		Contador de rueda móvil 5
		7.5	FRZ 2	—>		
		7.6	GND	<—		
	Entrada de agua	7.7	+13 V	—>		Contador de rueda móvil 6
		7.8	FRZ 3	<—		
		7.9	GND	—>		
	Codificación	8.1	Código 1	<—		sin asignar
		8.2	Código 2	<—		Puente de 8.2 hacia 8.3
		8.3	GND	—>		Puente de 8.2 hacia 8.3

L' = fase conectada, N' = conductor neutro conectado

* véase el apartado «Corriente máxima de las entradas y salidas»

Carga de corriente total de la electrónica: véase el apartado «Instalación».

Conexión eléctrica

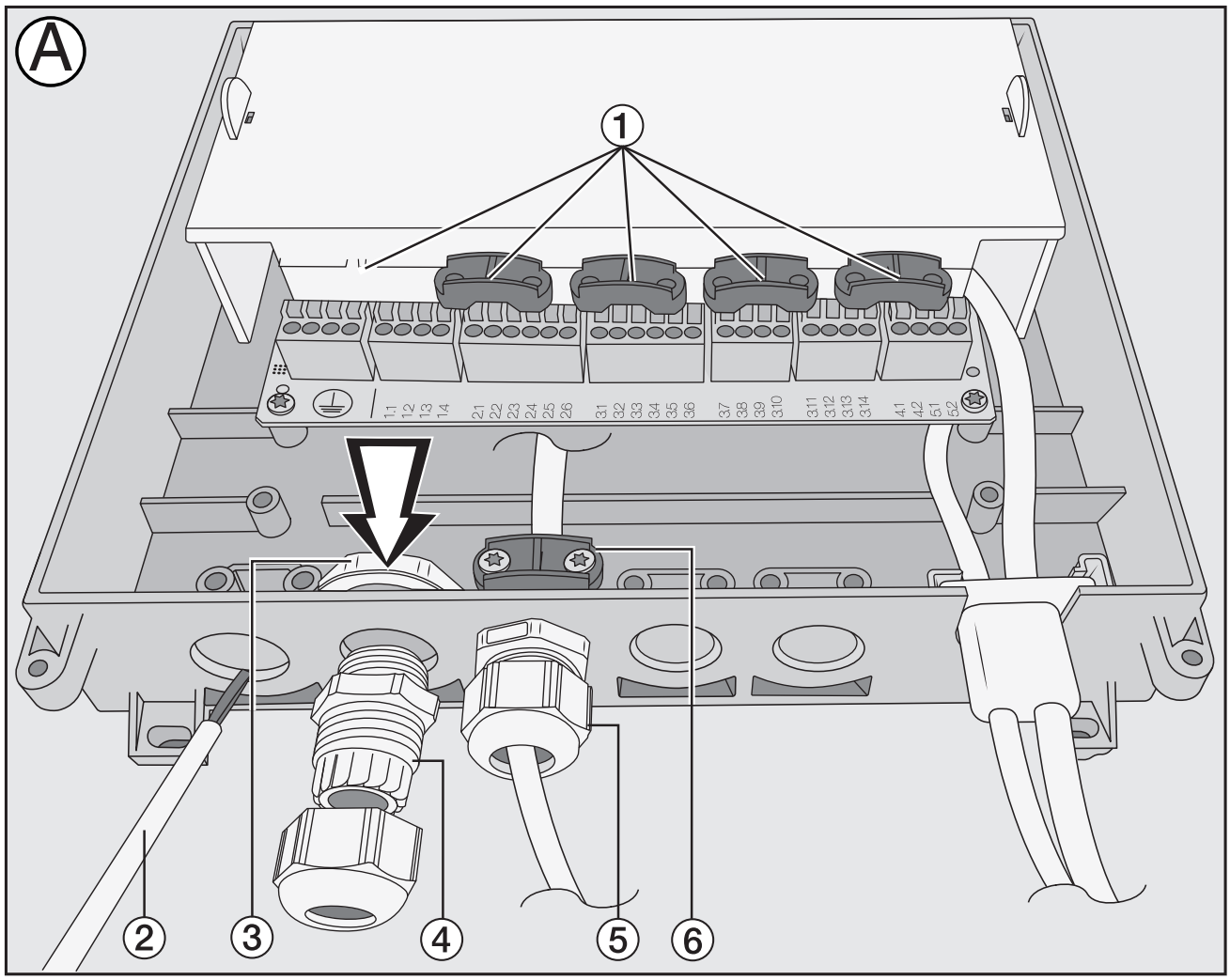
La Connector-Box se abastece de la tensión de red por medio de la máquina Miele Professional.

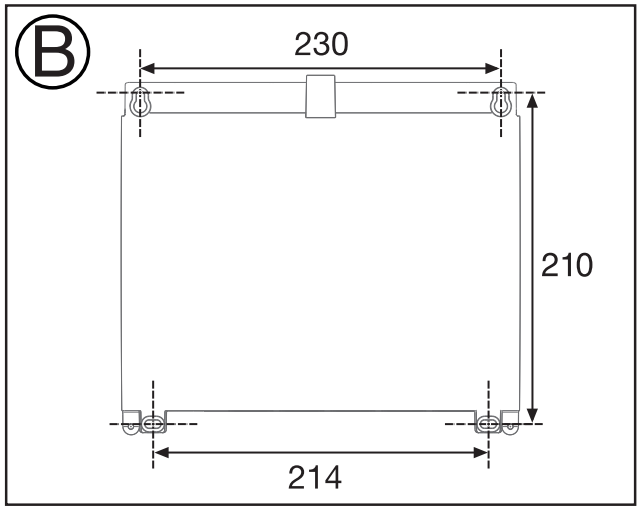
La Connector-Box no cuenta con ningún interruptor adicional *Conexión/Desconexión*.

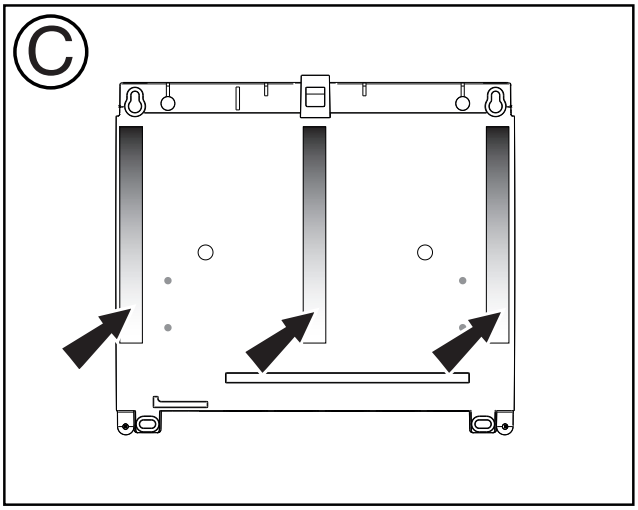
⚠ Daños en la Connector-Box por una conexión incorrecta.
La Connector-Box puede resultar dañada por sobrecorriente.
No se permite la conexión de la Connector-Box con voltaje externo.

Datos técnicos

Tensión	200 V–240 V
Frecuencia	50 Hz/60 Hz
Rango de temperatura para el funcionamiento	2 °C–35 °C

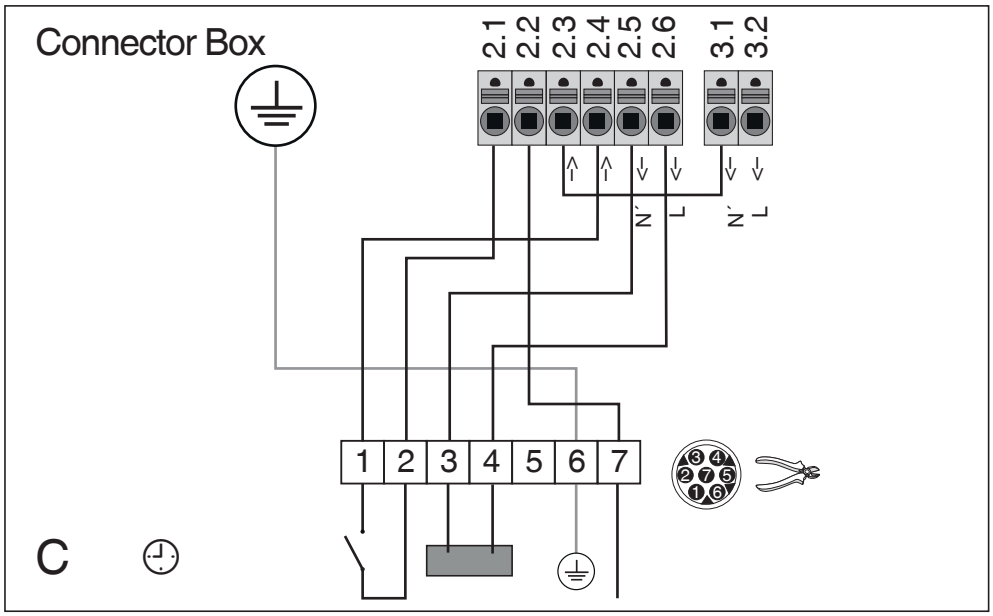

A
1
2
3
4
5
6


B
230
210
214

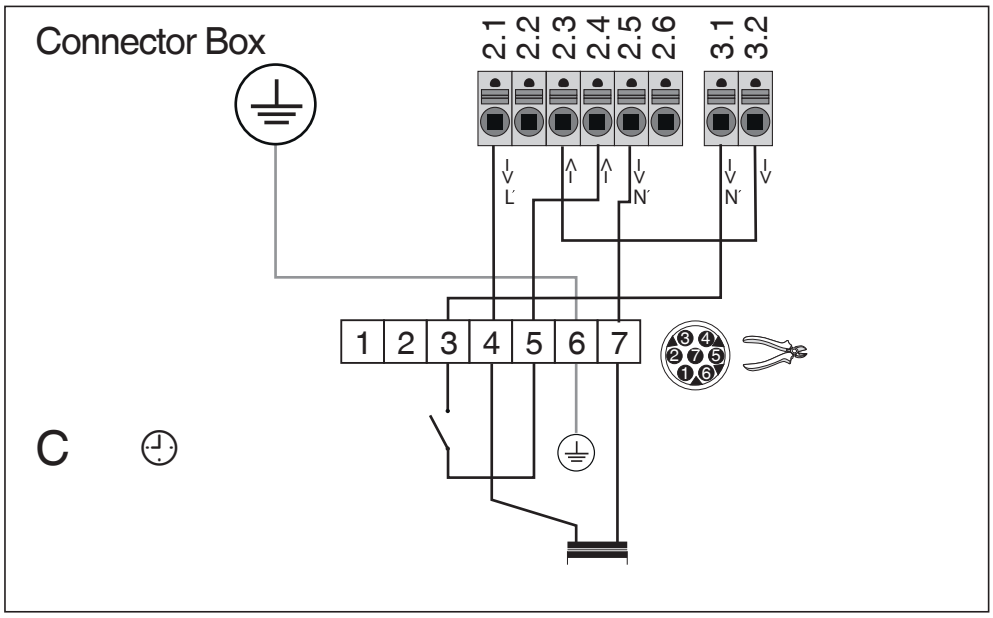

C

(Timed operation)

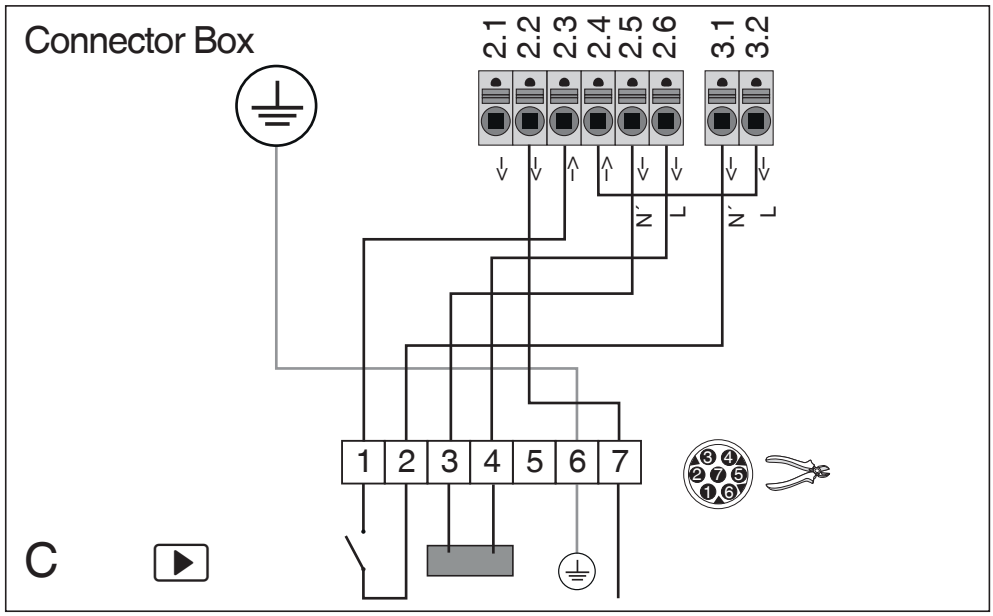
C4030, C4031, C4065, C4070, C4080



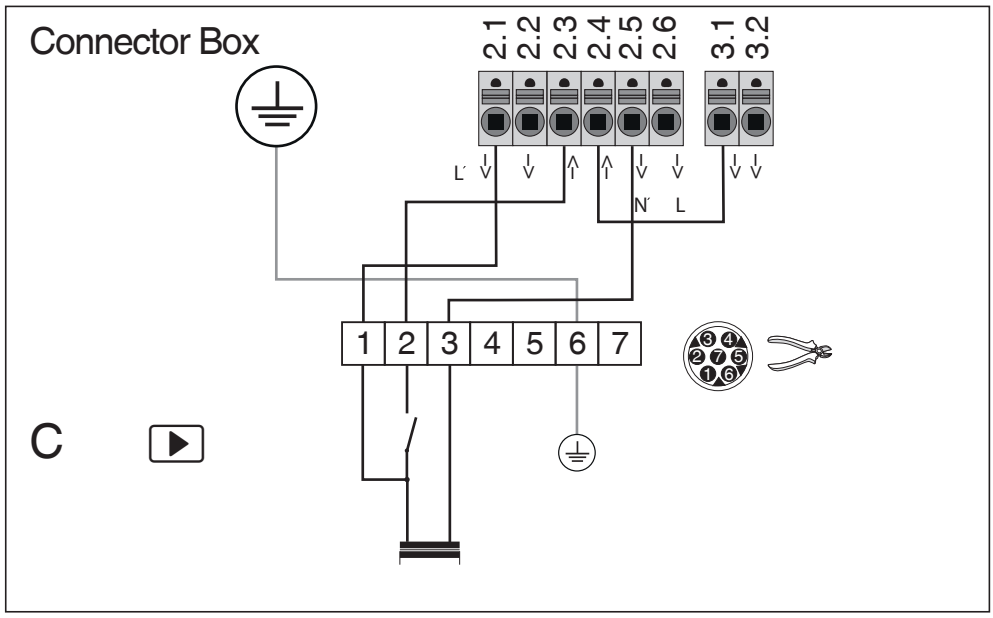
C5003



C4030, C4031, C4065, C4070, C4080



C4060, C5002, C5004



fr - Table des matières

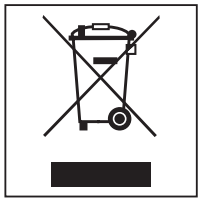
Nos emballages

Nos emballages protègent la Connector-Box des dommages qui peuvent survenir pendant le transport. Nous les sélectionnons en fonction de critères écologiques permettant d'en faciliter le recyclage.

En participant au recyclage de vos emballages, vous contribuez à économiser les matières premières et à réduire le volume des déchets. Votre revendeur reprend vos emballages.

Votre ancien appareil

Les appareils électriques et électroniques contiennent souvent des matériaux précieux. Cependant, ils contiennent aussi des substances toxiques nécessaires au bon fonctionnement et à la sécurité des appareils. Si vous déposez ces appareils usagés avec vos ordures ménagères ou les manipulez de manière inadéquate, vous risquez de nuire à votre santé et à l'environnement. Ne jetez jamais vos anciens appareils avec vos ordures ménagères !



Faites appel au service d'enlèvement mis en place par votre commune, votre revendeur ou Miele, ou rapportez votre appareil dans un point de collecte spécialement dédié à l'élimination de ce type d'appareil. Vous êtes légalement responsable de la suppression des éventuelles données à caractère personnel figurant sur l'ancien appareil à éliminer. Jusqu'à son enlèvement, veillez à ce que votre ancien appareil ne présente aucun danger pour les enfants.

La Connector-Box répond aux réglementations de sécurité en vigueur. Toute utilisation non conforme peut toutefois causer des dommages corporels et matériels.

Commencez par lire le mode d'emploi et les instructions de montage pour la Connector Box. Vous y trouverez des informations importantes sur la sécurité, l'utilisation et l'entretien de ce boîtier. Vous vous protégerez ainsi et éviterez de détériorer votre appareil.

Veuillez conserver ce document à disposition et le remettre au futur propriétaire en cas de cession !

Utilisation conforme

▶ La Connector Box est exclusivement prévue pour établir une connexion entre une machine Miele Professional et un dispositif externe, par ex. un circuit de délestage, un monnayeur, un ventilateur externe, un clapet d'évacuation ou des pompes doseuses. Toute autre utilisation pourrait s'avérer dangereuse.
Miele décline toute responsabilité en cas d'utilisation non conforme.

▶ La box Connector Box est exclusivement prévue pour être combinée avec des machines Miele Professional équipées d'un raccord d'accouplement côté installation.

Sécurité technique

▶ L'installation et le montage de la Connector Box doivent être effectués exclusivement par un électricien professionnel, en veillant à ce que les conditions de sécurité nécessaires au bon fonctionnement du boîtier soient réunies.

▶ Avant de l'installer, vérifiez que la Connector Box ne présente aucun dommage apparent. Il est interdit d'installer et de mettre en marche une Connector Box endommagée.

▶ Il est interdit de réparer la Connector Box en cas de défaut ou de dommage.
Le cas échéant, remplacez la box endommagée par une Connector Box neuve.

▶ La Connector Box n'est déconnectée du réseau électrique que lorsque la machine Miele Professional a été débranchée du secteur conformément aux instructions du mode d'emploi afférent.

▶ Les câbles d'alimentation entre la machine Miele Professional et la Connector Box ne doivent pas être coincés.

▶ La Connector Box doit être montée côté installation ou être montée sur la machine à l'aide d'une fixation spéciale (accessoire en option).

▶ Après le montage mural, la Connector Box doit rester accessible en prévision d'éventuelles interventions du service après-vente.

▶ Les câbles d'alimentation de la Connector Box doivent être montés et posés dans les règles de l'art.

▶ Les passe-câbles et presse-étoupes (avec contre-écrous) fournis doivent être utilisés pour raccorder tout dispositif externe.

Principe de fonctionnement

La Connector Box permet de raccorder des dispositifs externes de Miele ou d'autres fabricants à une machine Miele Professional. Il peut s'agir par exemple de monnayeurs, de systèmes de dosage, de circuits de délestage, de capteurs de pression, de clapets d'évacuation externes, etc.

Fonctions des Connector Box :

Connector Box Codage 1	Connector Box Codage 2
- Dosage 1–6	- Dosage 7–12
- Message niveau vide 1-6	- Message niveau vide 7-12
- Débit 1-3	- Débit 4-6
- Arrêt en pic de charge	- Recyclage de l’eau
- Monnayeur	- Programme signaux
- Programme signaux	

Il est possible de connecter jusqu'à 2 boîtiers à un lave-linge. Le lave-linge est équipé départ usine d'une Connector Box. Pour utiliser un deuxième boîtier, le kit APWM020 doit être commandé et installé par un électricien qualifié.

Les Connector Box peuvent être connectés aux deux raccordements du lave-linge, car seul le codage détermine de quel Connector Box il s'agit. Dans le lave-linge, les connexions sont connectées en parallèle et sont donc identiques en termes de signalisation.

Les Connector Box doivent être codés pour le fonctionnement. Le codage détermine la fonction (voir tableaux Fonctions et capacité de charge de courant codage 1/2). Le codage est également nécessaire lorsqu'on utilise une Box.

Les Connector Box sont codées avec le pontage de fil inséré dans la connexion 8.3 en usine. Pour les fonctions de la Connector Box 1 (voir tableaux Fonctions et codage de la capacité de charge de courant 1), le pontage du fil est enfiché dans la connexion 8.1. Pour les fonctions de la Connector Box 2 (voir tableaux Fonctions et codage de la capacité de charge de courant 2), le pontage du fil est enfiché dans la connexion 8.2.

Pour plus d'informations sur l'activation de la commande de la machine, consultez le mode d'emploi du lave-linge. (chapitre mode exploitant)

Ce mode d'emploi décrit avant tout le raccordement de monnayeurs. Le raccordement d'autres dispositifs externes via un monnayeur doit être effectué par des personnes habilitées du fabricant de matériel.

Avant fixation de la Connector Box

- La Connector Box doit être vissée côté installation par une personne habilitée. Dimensions de perçage des trous muraux, voir chapitre « 🔧 », Fig. Ⓑ à la fin du mode d'emploi et des instructions de montage.
- Vous pouvez aussi fixer la Connector Box au mur à l'aide des bandes adhésives jointes. Faites attention aux points suivants :
  – Les bandes adhésives sont collées à l'extérieur et au milieu à l'arrière. Voir chapitre « 🔧 », Fig. Ⓒ à la fin du mode d'emploi et des instructions de montage.
  – La surface du mur doit être lisse, solide, exempte de graisse et de poussière.
  – Il ne doit pas y avoir de papier peint texturé, de plâtre texturé ou d'autre surface dont les propriétés d'adhérence sur le mur sont insuffisantes.
  – La hauteur maximale de montage ne doit pas dépasser 1,50 m.

La Connector Box ne doit pas être installé au-dessus de points d'eau ouverts, de gouttières ou de systèmes similaires.

⚠ Risque de choc électrique en cas de chute de la Connector Box.
La Connector Box peut tomber en raison d'un montage incorrect ou défectueux, ce qui peut entraîner un choc électrique.
Une Connector Box tombée ne peut plus être utilisée. Remplacez la Connector Box par une nouvelle ou faites la vérifier par le service après-vente Miele.

Réaliser l'installation

Les travaux de maintenance doivent être effectués exclusivement par un électricien qualifié, dans le respect des consignes de sécurité en vigueur.

- Débranchez la machine Miele Professional du réseau électrique.
- Fixez la Connector Box au mur avec les 4 vis (4 x 40) et chevilles (S6) fournies. Voir chapitre « 🔧 », Fig. Ⓑ.
- Vous pouvez aussi fixer la Connector Box au mur à l'aide des bandes adhésives jointes. Voir chapitre « 🔧 », Fig. Ⓒ.
- Raccordez la Connector Box à la machine Miele Professional et au dispositif externe (par ex. un monnayeur).

Si vous souhaitez raccorder un dispositif externe d'un fabricant tiers, la section minimale du câble d'alimentation doit être de 1,0 mm^2 pour une longueur maximale de 2,50 m.

Monter les passe-câbles

Les câbles d'alimentation des dispositifs externes doivent être fixés à la Connector Box à l'aide de passe-câbles et de presse-étoupes. Voir chapitre « 🔧 », Fig. Ⓐ à la fin du mode d'emploi et des instructions de montage.

- Retirez le couvercle de la Connector Box (desserrer 2 vis).
- Prenez un ou plusieurs passe-câbles ①.
- Posez la Connector Box sur le côté étroit, de sorte que les orifices pré-percés se retrouvent en haut.
- A l'aide d'un tournevis, faites sortir le cercle pré-percé ②.

Conseil : Percez à plusieurs endroits le long du marquage à l'aide du tournevis.

- Insérez le contre-écrou ③.
- Vissez la pièce filetée ④.

Conseil : Insérez le bouchon à vis ⑤ à l'extrémité du câble d'alimentation du dispositif externe.

- Faites passer le câble d'alimentation dans la Connector Box à travers la pièce filetée.
- Serrez à fond le bouchon à vis.

Le bouchon à vis sert de protection contre l'humidité et la poussière.

- Fixez le câble d'alimentation à l'aide du passe-câble ⑥.
- Faites les raccordements nécessaires dans la Connector Box pour le dispositif externe.
- Refermez le couvercle de la Connector Box (serrer 2 vis).

Légende des passe-câbles au chapitre « 🔧 », Fig. Ⓐ

① Passe-câbles
② Orifice pré-percé
③ Contre-écrou
④ Pièce filetée
⑤ Bouchon à vis
⑥ Passe-câble avec vis

Programmation

Une fois la Connector Box installée, il est nécessaire d'autoriser les fonctionnalités externes sur la machine Miele Professional.

Respectez les instructions du mode d'emploi de la machine Miele Professional.

La machine Miele Professional doit être programmée pour pouvoir communiquer avec les dispositifs externes (monnayeur, système de dosage, etc.).

Capacité conductrice des entrées et sorties

Lors de l'installation, veillez à ce que la puissance absorbée des composants supplémentaires à raccorder ne dépasse pas les valeurs admises pour les courants individuels et la puissance absorbée totale dans le conducteur neutre.

Lors de l'installation, veillez à ce que le raccordement du lave-linge/sèche-linge en combinaison avec la Connector Box et les composants supplémentaires ne cause pas un dépassement des valeurs admises par le dispositif de sécurité du réseau électrique.

Les courants individuels des entrées et sorties sont décrits au chapitre « Tableau de capacité conductrice ».

L'élément de commutation du contact 3.3 a été conçu de telle manière qu'il peut également accueillir un ventilateur avec convertisseur de fréquence.

Si vous souhaitez raccorder un dispositif externe d'un fabricant tiers, la section minimale du câble d'alimentation doit être de 1,0 mm^2 pour une longueur maximale de 2,50 m.

Détection de jauge vide

⧫ La détection de jauge vide doit être raccordée aux bornes 4.1 et 4.2. Celles-ci correspondent à une « très basse tension de protection » (classe de protection III).

Les consignes du fabricant du capteur doivent être respectées. Les câbles doivent être posés séparément de tous les autres câbles.

Installer un monnayeur

Monnayeur en mode minuterie

Vous trouverez le schéma électrique correspondant à la fin de ce mode d'emploi, au chapitre ◴ (« Timed operation »).

- C4030, C4031, C4065, C4070, C4080
- C5003

Monnayeur en mode programme

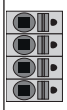
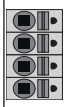
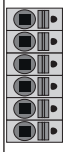
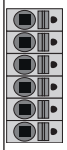
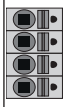
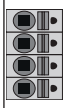
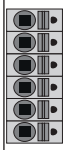
Vous trouverez le schéma électrique correspondant à la fin de ce mode d'emploi, au chapitre ▶ (« Programme operation »).

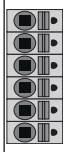
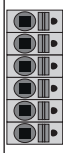
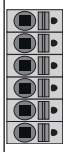
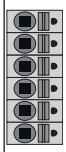
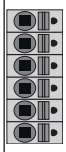
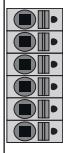
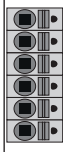
- C4030, C4031, C4060, C4065, C4070, C4080
- C5002, C5004

Légende

	Couplage 7 pôles du monnayeur
	Il est possible de retirer le couplage 7 pôles du monnayeur pour raccorder directement les câbles aux bornes de la Connector Box.
Connec-tor Box	Bornier de la Connector Box
C	Schéma du câblage électrique dans le monnayeur
	Mode minuterie
	Mode programme
	Symbole pour la borne PE (mise à la terre)

Tableau fonction et capacité conductrice codage 1

	Fonction	Repérage	Signal	Sens de transmission	Capacité conductrice	Description fonction
	Conducteur de protection	PE	PE	—>		Conducteur de protection
		PE	PE	—>		Conducteur de protection
		PE	PE	—>		Conducteur de protection
		PE	PE	—>		Conducteur de protection
	Charge de pointe	1.1	L'	—>	1,0 A	a Message mise sous tension sortie
		1.2	N'	—>	1,0 A	b demande de chauffage sortie
		1.3	L'	<—		c validation du chauffage entrée
		1.4	N'	—>		d Conducteur neutre
	Monnayeur	2.1	L'	—>	0,5 A	Appareil opérationnel
		2.2	L'	—>	0,5 A	Statut de programme
		2.3	L'	<—		Impulsion programme payé
		2.4	N'	<—		Signal d'achat de temps
		2.5	N'	—>		Alimentation électrique
		2.6	L'	—>		
	Dosage	3.1	N'	—>	1,0 A	Alimentation électrique ext.
		3.2	L'	—>	1,0 A	
		3.3	L'	—>	1,0 A	Dosage 1
		3.4	N'	—>	1,0 A	
		3.5	L'	—>	1,0 A	Dosage 2
		3.6	N'	—>	1,0 A	
	Dosage	3.7	L'	—>	1,0 A	Dosage 3
		3.8	N'	—>	1,0 A	
		3.9	L'	—>	1,0 A	Dosage 4
		3.10	N'	—>	1,0 A	
	Dosage	3.11	L'	—>	1,0 A	Dosage 5
		3.12	N'	—>	1,0 A	
		3.13	L'	—>	1,0 A	Dosage 6
		3.14	N'	—>	1,0 A	
	Signaux programme	4.1	L'	—>		Arrêt du programme sortie
		4.2	N'	—>		
		4.3	L'	—>		Fin de bloc sortie
		4.4	N'	—>		
		4.5	Signal de commutation	<—		Arrêt du programme entrée (source de tension)
		4.6	Potentiel de référence pour 4.5	<—		

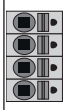
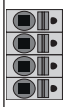
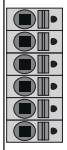
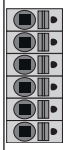
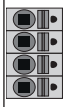
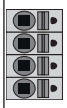
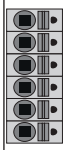
	Fonction	Repérage	Signal	Sens de transmis-sion	Capacité conduc-trice	Description fonction
	Dosage	5.1	L'	—>		Message niveau vide 1
		5.2	N'	<—		
		5.3	L'	—>		Message niveau vide 2
		5.4	N'	<—		
		5.5	L'	—>		Message niveau vide 3
		5.6	N'	<—		
	Dosage	5.7	L'	—>		Message niveau vide 4
		5.8	N'	<—		
		5.9	L'	—>		Message niveau vide 5
		5.10	N'	<—		
		5.11	L'	—>		Message niveau vide 6
		5.12	N'	<—		
	Dosage	6.1	+13V	—>		Débit Dos 1
		6.2	FM 1	<—		
		6.3	GND	—>		
		6.4	+13V	<—		Débit Dos 2
		6.5	FM 2	—>		
		6.6	GND	<—		
	Dosage	6.7	+13V	—>		Débit Dos 3
		6.8	FM 3	<—		
		6.9	GND	—>		
		6.10	+13V	<—		Débit Dos 4
		6.11	FM 4	—>		
		6.12	GND	<—		
	Dosage	6.13	+13V	—>		Débit Dos 5
		6.14	FM 5	<—		
		6.15	GND	—>		
		6.16	+13V	<—		Débit Dos 6
		6.17	FM 6	—>		
		6.18	GND	<—		
	Arrivée d'eau	7.1	+13V	—>		Débitmètre à hélice 1
		7.2	FRZ 1	<—		
		7.3	GND	—>		
		7.4	+13V	<—		Débitmètre à hélice 2
		7.5	FRZ 2	—>		
		7.6	GND	<—		
	Arrivée d'eau	7.7	+13V	—>		Débitmètre à hélice 3
		7.8	FRZ 3	<—		
		7.9	GND	—>		
	Codage	8.1	COD 1	<—		Pontage de 8.1 vers 8.3
		8.2	COD 2	<—		non affecté
		8.3	GND	—>		Pontage de 8.1 vers 8.3

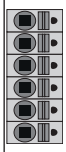
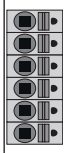
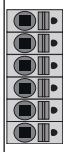
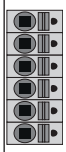
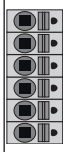
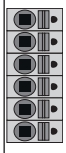
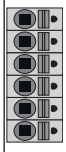
L' = phase activée, N' = neutre activé

* voir chapitre « Capacité conductrice des entrées et sorties »

Intensité totale du courant de l'électronique : voir chapitre « Installation ».

Tableau fonction et capacité conductrice codage 2

	Fonction	Repérage	Signal	Sens de transmission	Capacité conductrice	Description fonction
	Conducteur de protection	PE	PE	—>		Conducteur de protection
		PE	PE	—>		
		PE	PE	—>		
		PE	PE	—>		
	WRG	1.1	L'	—>	1,0 A	WRG Pompe activée
		1.2	N'	—>	0,5 A	WRG Vanne
		1.3	L'	<—		non affecté
		1.4	N'	—>		non affecté
	WRG	2.1	L'	—>	0,5 A	WRG Vidange
		2.2	L'	—>	0,5 A	WRG Arrivée
		2.3	L'	<—		non affecté
		2.4	N'	<—		WRG pos. à
		2.5	N'	—>		non affecté
		2.6	L'	—>		non affecté
	Dosage	3.1	N'	—>	1,0 A	Alimentation électrique ext.
		3.2	L'	—>	1,0 A	
		3.3	L'	—>	1,0 A	Dosage 7
		3.4	N'	—>	1,0 A	
		3.5	L'	—>	1,0 A	Dosage 8
		3.6	N'	—>	1,0 A	
	Dosage	3.7	L'	—>	1,0 A	Dosage 9
		3.8	N'	—>	1,0 A	
		3.9	L'	—>	1,0 A	Dosage 10
		3.10	N'	—>	1,0 A	
	Dosage	3.11	L'	—>	1,0 A	Dosage 11
		3.12	N'	—>	1,0 A	
		3.13	L'	—>	1,0 A	Dosage 12
		3.14	N'	—>	1,0 A	
	Signaux programme	4.1	L'	—>		non affecté
		4.2	N'	—>		
		4.3	L'	—>		non affecté
		4.4	N'	—>		
		4.5	Signal de commutation	<—		non affecté
		4.6	Potentiel de référence pour 4.5	<—		

	Fonction	Repérage	Signal	Sens de transmis-sion	Capacité conduc-trice	Description fonction
	Dosage	5.1	L'	—>		Message niveau vide 7
		5.2	N'	<—		
		5.3	L'	—>		Message niveau vide 8
		5.4	N'	<—		
		5.5	L'	—>		Message niveau vide 9
		5.6	N'	<—		
	Dosage	5.7	L'	—>		Message niveau vide 10
		5.8	N'	<—		
		5.9	L'	—>		Message niveau vide 11
		5.10	N'	<—		
		5.11	L'	—>		Message niveau vide 12
		5.12	N'	<—		
	Dosage	6.1	+13V	—>		Débit Dos 7
		6.2	FM 1	<—		
		6.3	GND	—>		
		6.4	+13V	<—		Débit Dos 8
		6.5	FM 2	—>		
		6.6	GND	<—		
	Dosage	6.7	+13V	—>		Débit Dos 9
		6.8	FM 3	<—		
		6.9	GND	—>		
		6.10	+13V	<—		Débit Dos 10
		6.11	FM 4	—>		
		6.12	GND	<—		
	Dosage	6.13	+13V	—>		Débit Dos 11
		6.14	FM 5	<—		
		6.15	GND	—>		
		6.16	+13V	<—		Débit Dos 12
		6.17	FM 6	—>		
		6.18	GND	<—		
	Arrivée d'eau	7.1	+13V	—>		Débitmètre à hélice 4
		7.2	FRZ 1	<—		
		7.3	GND	—>		
		7.4	+13V	<—		Débitmètre à hélice 5
		7.5	FRZ 2	—>		
		7.6	GND	<—		
	Arrivée d'eau	7.7	+13V	—>		Débitmètre à hélice 6
		7.8	FRZ 3	<—		
		7.9	GND	—>		
	Codage	8.1	Code 1	<—		non affecté
		8.2	Code 2	<—		Pontage de 8.2 vers 8.3
		8.3	GND	—>		Pontage de 8.2 vers 8.3

L' = phase activée, N' = neutre activé

* voir chapitre « Capacité conductrice des entrées et sorties »

Intensité totale du courant de l'électronique : voir chapitre « Installation ».

Raccordement électrique

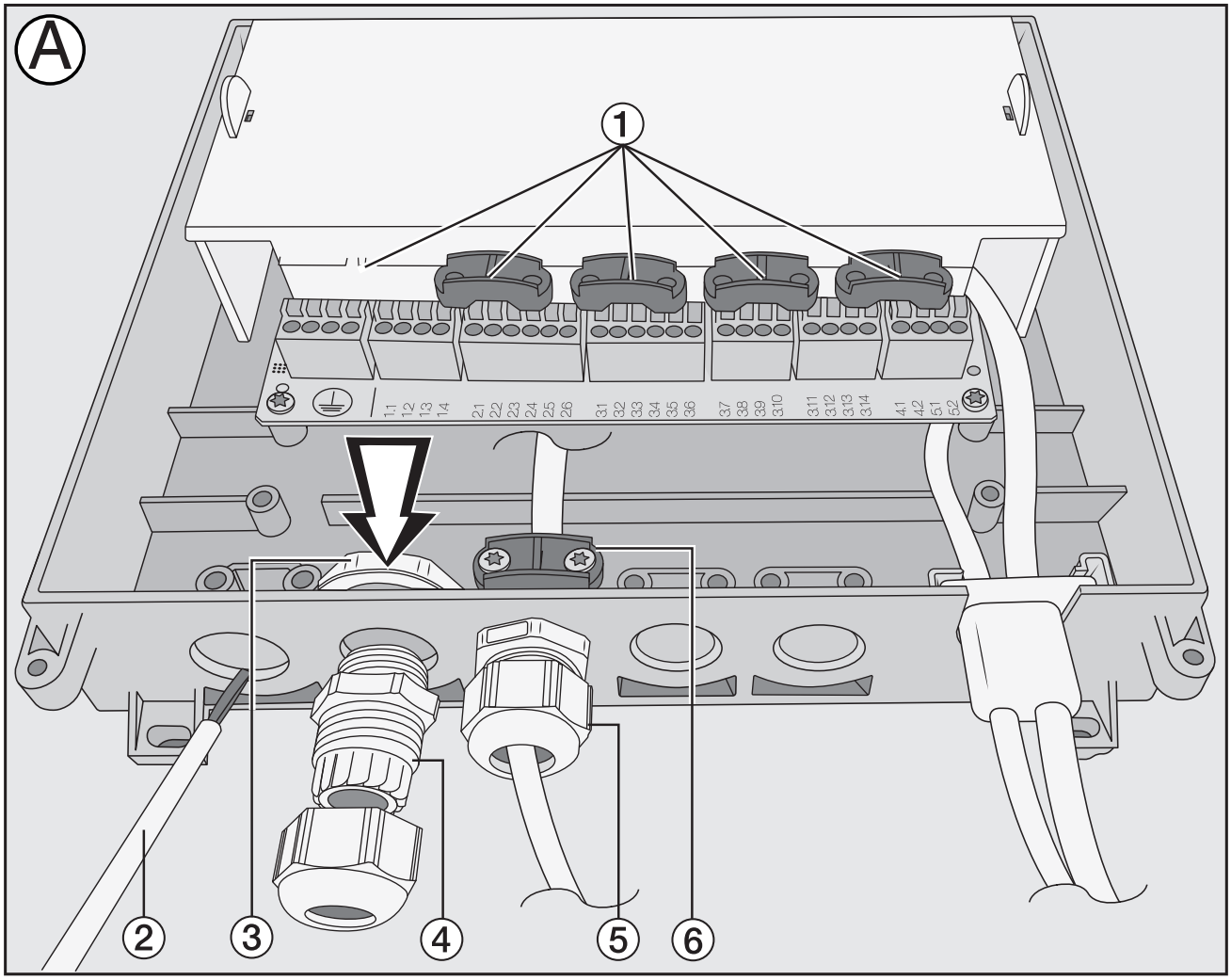
La Connector Box est alimentée en tension réseau par l'intermédiaire de la machine Miele Professional.

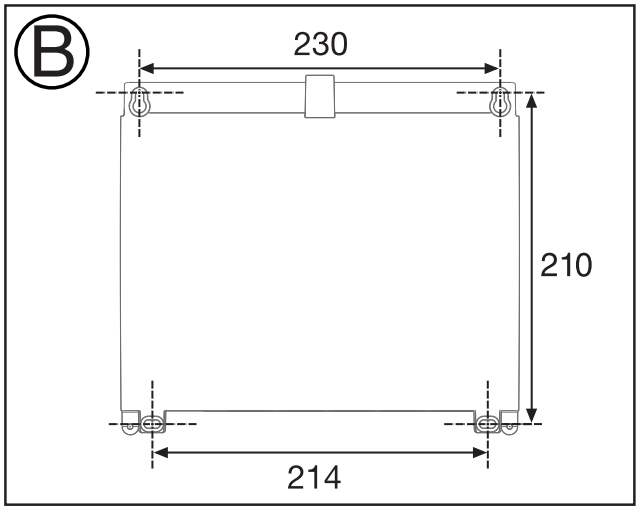
La Connector Box ne dispose pas d'un bouton *Marche/Arrêt* indépendant.

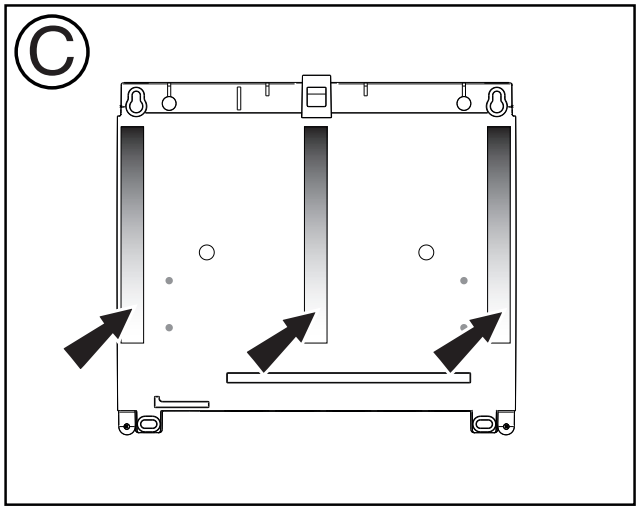
⚠ Risque de dommages dus à un raccordement incorrect.
La Connector Box peut être endommagée en cas de surcharge.
Il est interdit de faire fonctionner la Connector Box avec une tension externe.

Caractéristiques techniques

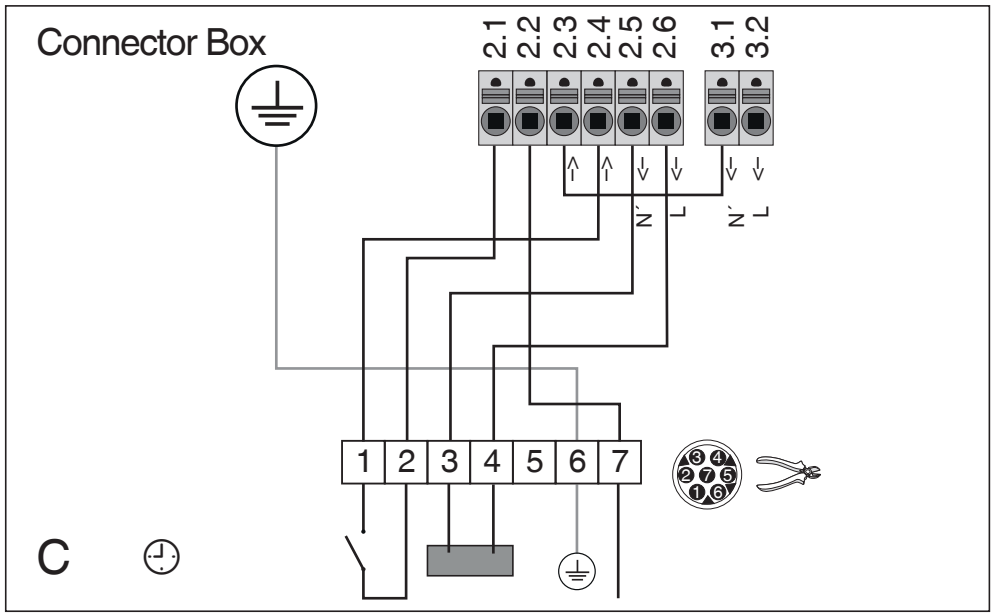
Tension	200 V–240 V
Fréquence	50 Hz/60 Hz
Plage de température en fonctionnement	2 °C–35 °C


A
1
1.1 1.2 1.3 1.4
2.1 2.2 2.3 2.4 2.5 2.6
3.1 3.2 3.3 3.4 3.5 3.6
3.7 3.8 3.9 3.10
3.11 3.12 3.13 3.14
4.1 4.2
5.1 5.2
2
3
4
5
6

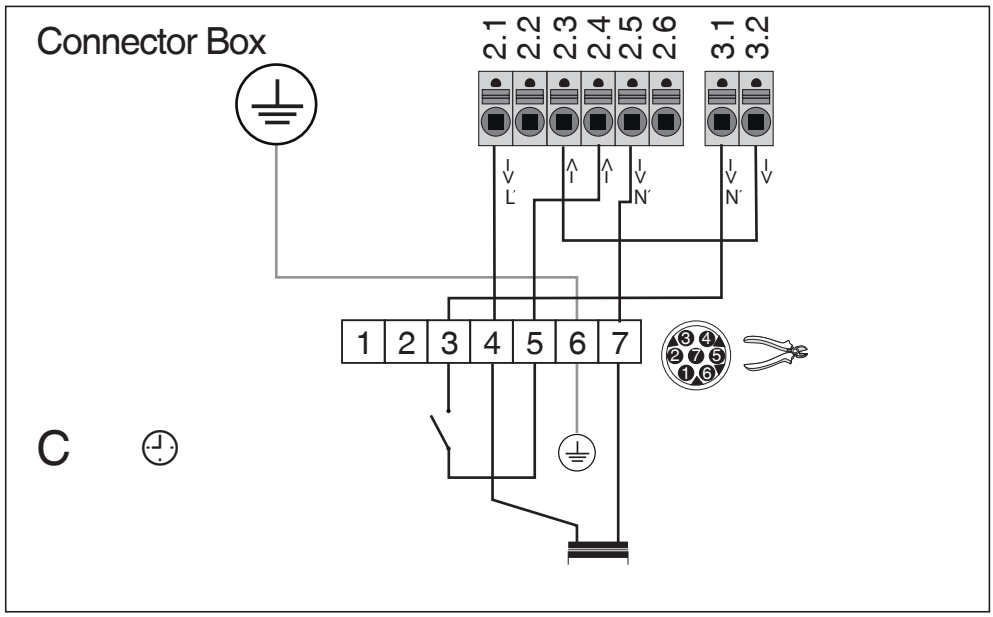

B
230
210
214


C

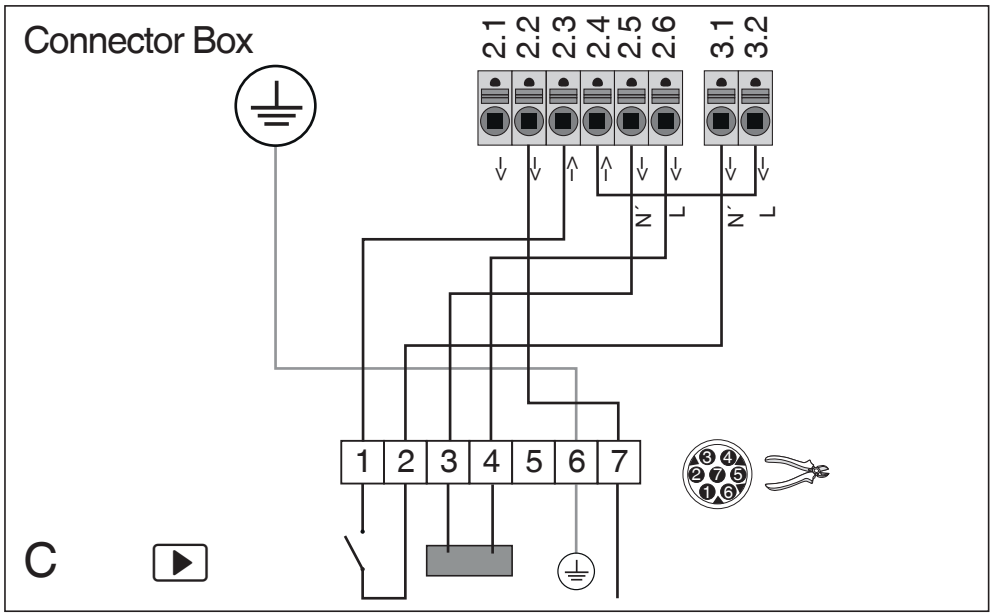
C4030, C4031, C4065, C4070, C4080



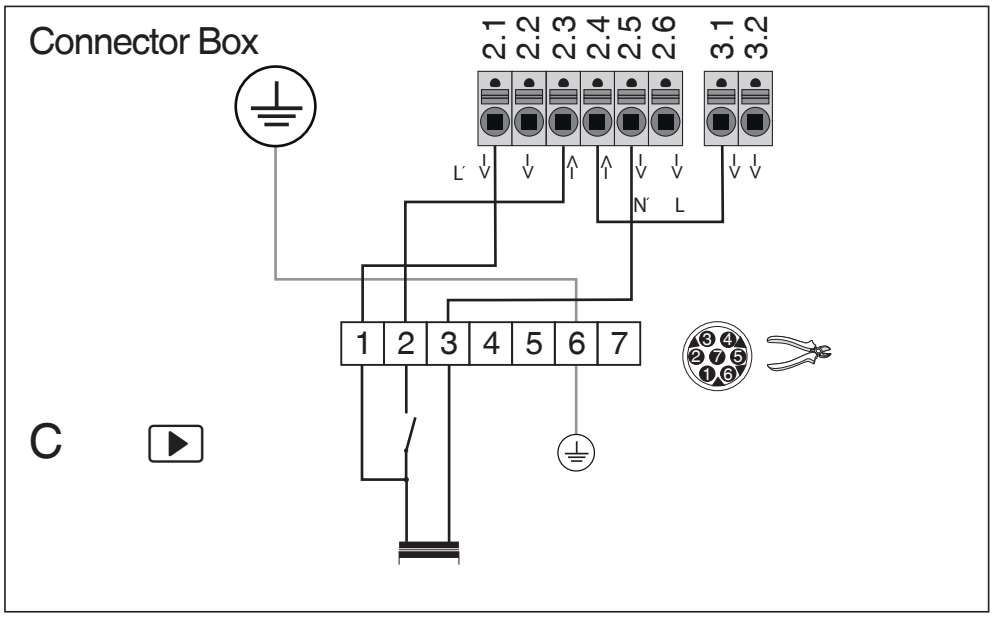
C5003



C4030, C4031, C4065, C4070, C4080



C4060, C5002, C5004



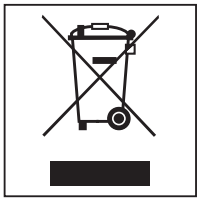
Eliminação da embalagem de transporte

A embalagem protege a Connector Box contra danos que possam ocorrer durante o transporte. Os materiais da embalagem são selecionados do ponto de vista ecológico e de eliminação e, por isso, são recicláveis.

A devolução da embalagem ao ciclo de reciclagem contribui para a economia de matérias-primas e para a redução de resíduos. O seu distribuidor aceita a embalagem de volta.

Eliminação do aparelho em fim de vida útil

Os aparelhos elétricos e eletrónicos contêm muitas vezes diversos materiais valiosos. Mas também contêm determinadas substâncias, misturas e componentes que foram necessários para o seu funcionamento e segurança. Se estes materiais forem depositados no contentor de lixo doméstico, ou se forem tratados de forma errada, podem ser prejudiciais à saúde e ao ambiente. Não deposite o seu aparelho fora de uso junto do contentor do lixo normal.



Em vez disso, utilize os pontos oficiais de recolha e reciclagem de equipamentos elétricos e eletrónicos da sua junta de freguesia, dos distribuidores Miele ou da Miele. Para apagar eventuais dados pessoais no aparelho antigo, este processo é legalmente da sua responsabilidade. Mantenha os aparelhos até serem transportados fora do alcance das crianças.

Esta Connector Box cumpre as normas de segurança em vigor. Uma utilização inadequada pode, contudo, resultar em ferimentos para as pessoas e em danos materiais.

Leia primeiro estas instruções de utilização e de montagem da Connector Box. Elas contêm informações importantes sobre segurança, utilização e manutenção da Connector Box. Desta forma, não só se protege como evita danos no seu aparelho.

Guarde estas instruções de utilização e de montagem e faculte as mesmas a um eventual futuro proprietário.

▶ A Connector Box é exclusivamente concebida para estabelecer uma ligação entre uma máquina Miele Professional e hardwares externos como, p. ex., um sistema de desativação de picos de corrente, um sistema de pagamento com moedas, um ventilador adicional, uma válvula de ar extraído ou bombas doseadoras. A utilização para outras finalidades poderá ser perigosa.
A Miele não assume qualquer responsabilidade por danos causados pela utilização abusiva ou operação incorreta.

▶ A Connector Box-Box destina-se exclusivamente à utilização em combinação com máquinas Miele Professional com um conector instalado de fábrica.

Segurança técnica

▶ A instalação e a montagem da Connector Box só podem ser realizadas por técnicos eletricistas qualificados que garantam os pré-requisitos para a utilização adequada.

▶ Antes da instalação da Connector Box, verifique se existe algum dano externo visível. Uma Connector Box danificada não deve ser instalada nem colocada em funcionamento.

▶ A Connector Box não deve ser reparada em caso de um defeito ou dano.
Nestes casos, substitua a Connector Box apenas por uma nova.

▶ A Connector Box só está, então, eletricamente desconectada da rede quando ocorre a desconexão da máquina Miele Professional conforme as indicações nas instruções de utilização e instalação.

▶ Os cabos de ligação da máquina Miele Professional para a Connector Box não devem ser bloqueados.

▶ A Connector Box deve ser montada na máquina no local ou com uma fixação específica da máquina (acessório opcional).

▶ Após a montagem na parede, a Connector Box deve estar acessível em caso de assistência técnica.

▶ A montagem e instalação dos cabos de ligação para a Connector Box devem ser realizadas por um profissional.

▶ Devem ser utilizados os dispositivos de alívio de tensão dos cabos e as uniões roscadas dos cabos fornecidos com as contraporcas para ligar ao hardware externo.

Modo de funcionamento

A Connector Box permite que hardwares externos da Miele e de outros fornecedores sejam ligados à máquina Miele Professional. Hardwares externos são, p. ex., sistemas de pagamento, sistemas de dosagem, sistemas de gestão de picos de corrente, sensores de pressão, válvulas externas de ar extraído, entre outros.

Funções das Connector Boxes:

Connector Box codificação 1	Connector Box codificação 2
- Dosagem 1–6	- Dosagem 7–12
- Mensagem de estado vazio 1–6	- Mensagem de estado vazio 7–12
- Taxa de fluxo 1–3	- Taxa de fluxo 4–6
- Desativação de picos de corrente	- Recuperação de água
- Sistema de pagamento	- Sinais do programa
- Sinais do programa	

Podem ser ligadas até 2 caixas a uma máquina de lavar roupa. A máquina de lavar roupa vem equipada de fábrica com uma ligação para a Connector Box. Para utilizar uma segunda caixa, o kit APWM020 deve ser encomendado e instalado por um eletricista qualificado.

As Connector Boxes podem ser ligadas a ambas as ligações da máquina de lavar roupa, pois só a codificação é que decide que Connector Box atua. Na máquina de lavar roupa, as ligações são ligadas em paralelo sendo assim idênticas em termos de sinalização.

As Connector Boxes devem ser codificadas para o funcionamento. A codificação determina a função (ver as tabelas Funções e Codificação da Capacidade de Corrente 1/2). A codificação também é necessária quando se utiliza uma caixa.

As Connector Boxes são codificadas com o fio de ligação direta inserido na ligação 8.3 na fábrica. Para as funções da Connector Box 1 (ver as tabelas Funções e Codificação da Capacidade de Corrente 1), o fio de ligação direta está inserido na ligação 8.1. Para as funções da Connector Box 2 (ver as tabelas Funções e Codificação da Capacidade de Corrente 2), o fio de ligação direta está inserido na ligação 8.2.

Para mais informações sobre a ativação do controlo da máquina, consultar as instruções de utilização da máquina de lavar roupa. (Capítulo Nível do operador)

Estas instruções de utilização e de montagem são principalmente uma orientação para a ligação de mealheiros. As ligações de outro hardware externo que vão para além dos mealheiros devem ser executadas por pessoas autorizadas do fabricante do hardware.

Antes da fixação da Connector Box

- A Connector Box deve ser aparafusada no local por um profissional. Medidas para perfuração dos orifícios na parede, ver o capítulo «🔧», figura Ⓑ no final destas instruções de utilização e de montagem.
- Alternativamente a Connector Box pode ser fixa à parede com as tiras adesivas em anexo. Tenha em atenção:
  – As tiras adesivas são coladas centralmente no exterior do lado traseiro. Ver o capítulo «🔧», figura Ⓒ no final destas instruções de utilização e de montagem.
  – A superfície da parede deve ser lisa, estável, isenta de gordura e pó.
  – Na parede não se pode encontrar qualquer papel de parede estruturado, reboco estruturado e nenhuma outra superfície com propriedades aderentes insuficientes.
  – A altura de montagem máxima não pode exceder 1,50 m.

A Connector Box não pode ser instalada sobre pontos de água abertos, calhas de drenagem ou sistemas idênticos.

⚠ Perigo de choque elétrico devido a queda da Connector Box.
A Connector Box pode cair devido a fixação incorreta ou defeituosa, o que pode conduzir a um choque elétrico.
Uma Connector Box que tenha caído já não pode ser mais utilizada. Substitua a Connector Box por uma nova ou solicite a sua verificação pelo serviço de assistência técnica da Miele.

Executar a instalação

Os trabalhos de reparação apenas podem ser executados por um eletricista qualificado e de acordo com as normas de segurança em vigor.

- Desligue a máquina Miele Professional da tensão de rede.
- Fixe a Conector Box à parede com os 4 parafusos (4 x 40) e buchas (S6) fornecidos. Ver o capítulo «🔧», figura Ⓑ.
- Em alternativa, pode fixar a Connector Box à parede utilizando as tiras adesivas em anexo. Ver o capítulo «🔧», figura Ⓒ.
- Efetue a ligação da Connector Box à máquina Miele Professional e ao hardware externo (p. ex., sistema de pagamento).

Para hardwares externos conectados de outros fabricantes não deve ser excedida a secção mínima de 1,0 mm^2 no caso de um comprimento máximo de cabo de 2,50 m.

Montar o dispositivo de alívio de tensão do cabo

Os cabos de ligação do hardware externo devem ser fixados à Connector Box com uniões roscadas e dispositivos de alívio de tensão do cabo. Ver o capítulo «🔧», figura Ⓐ no final destas instruções de utilização e de montagem.

- Retire a tampa da Connector Box (desenroscar 2 parafusos).
- Remova um ou mais dispositivos de alívio de tensão do cabo ①.
- Coloque a Connector Box no lado estreito de modo a que os orifícios de ligação fechados estejam em cima.
- Com uma chave de parafusos, pressione para fora a parte redonda com relevo no orifício da ligação ②.

Dica: Perfure a ranhura circunferencial em vários pontos com a chave de parafusos.

- Insira a contraporca ③.
- Desenrosque a peça roscada ④.

Dica: Deslize a tampa de rosca ⑤ sobre a extremidade do cabo de ligação do hardware externo.

- Insira o cabo de ligação através da peça roscada na Connector Box.
- Aperte a tampa de rosca.

A tampa de rosca protege da humidade e do pó.

- Fixe o cabo de ligação com o dispositivo de alívio de tensão do cabo ⑥.
- Efetue as ligações necessárias na Connector Box para o hardware externo.
- Feche a tampa da Connector Box (rodar para dentro 2 parafusos).

Legenda para alívio de tensão do cabo no capítulo «🔧», figura Ⓐ

① Dispositivos de alívio de tensão do cabo
② Orifício de ligação
③ Contraporca
④ Peça roscada
⑤ Tampa de rosca
⑥ Dispositivo de alívio de tensão do cabo com parafusos

Programação

Após a instalação da Connector Box, as configurações para as funções externas devem ser realizadas na respetiva máquina Miele Professional.

Siga as indicações nas instruções de utilização e instalação da máquina Miele Professional.

Para a comunicação com hardwares externos (mealheiro, unidade de dosagem ...) é necessário realizar configurações/programações na máquina Miele Professional.

Capacidade de corrente das entradas e saídas

Durante a instalação, deve ser observado se o consumo de corrente dos componentes adicionais a serem conectados não excede as correntes simples permitidas e o consumo de corrente total no condutor neutro.

Durante a instalação deve ser garantido que através da ligação da máquina de lavar roupa/máquina de secar roupa em conjunto com a Connector Box e o hardware conectado não é excedida a corrente de segurança da rede de tensão.

As entradas e saídas estão projetadas em particular para correntes, conforme descrito na secção «Tabela de Capacidade de Corrente».

O elemento de comutação para contacto 3.3 está projetado de forma a que um ventilador com conversor de frequência também possa ser comutado.

Para hardwares externos conectados de outros fabricantes não deve ser excedida a secção mínima de 1,0 mm^2 no caso de um comprimento máximo de cabo de 2,50 m.

Sensor de nível de vazio

O sensor de nível de vazio é ligado às distribuições de terminais 4.1 e 4.2. Estes estão em conformidade com a baixa tensão de segurança (grau de proteção III).

As especificações do fabricante do sensor devem ser observadas. Os cabos devem ser colocados separadamente de todos os outros cabos.

Instalar mealheiro

Mealheiro em funcionamento temporizado

Encontra o esquema da ligação a este propósito no fim destas instruções de utilização e de montagem no capítulo ◷ («Modo»).

- C4030, C4031, C4065, C4070, C4080
- C5003

Mealheiro no modo de programa

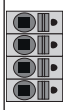
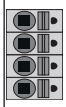
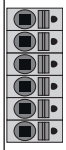
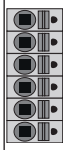
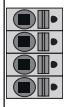
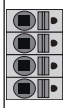
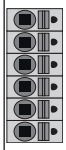
Encontra o esquema da ligação a este propósito no fim destas instruções de utilização e de montagem no capítulo ▶ («Modo de programa»).

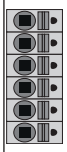
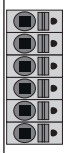
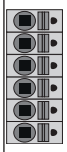
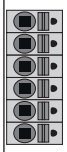
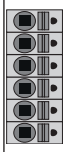
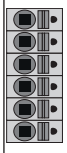
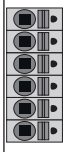
- C4030, C4031, C4060, C4065, C4070, C4080
- C5002, C5004

Legenda

	Acoplamento de 7 pinos do mealheiro
	O acoplamento de 7 pinos do mealheiro pode ser removido para ligar os cabos diretamente através dos terminais da Connector Box.
Connector Box	Buchas de fixação da Connector Box
C	Representação esquemática da ligação elétrica no mealheiro
	Modo temporizado
	Modo de programa
	Símbolo para terminal PE (ligação à terra)

Tabelas Função e Codificação da Capacidade de Corrente 1

	Apli-cação	Distribuição de terminais	Sinal	Direção do sinal	Capacida-de de corrente	Descrição da função
	Condutor de prote-ção	PE	PE	—>		Condutor de proteção
		PE	PE	—>		Condutor de proteção
		PE	PE	—>		Condutor de proteção
		PE	PE	—>		Condutor de proteção
	Pico de corrente	1.1	L'	—>	1,0 A	a Mensagem de ligação Saída
		1.2	N'	—>	1,0 A	b Solicitação de aquecimento Saída
		1.3	L'	<—		c Desbloqueio do aquecimento Entrada
		1.4	N'	—>		d Condutor neutro
	Sistema de paga-mento	2.1	L'	—>	0,5 A	Aparelho pronto a funcionar
		2.2	L'	—>	0,5 A	Estado do programa
		2.3	L'	<—		Impulso de compra do programa
		2.4	N'	<—		Sinal de compra do tempo
		2.5	N'	—>		Fonte de alimentação elétrica
		2.6	L'	—>		
	Dosear	3.1	N'	—>	1,0 A	Fonte de alimentação elétrica ext.
		3.2	L'	—>	1,0 A	
		3.3	L'	—>	1,0 A	Dosagem 1
		3.4	N'	—>	1,0 A	
		3.5	L'	—>	1,0 A	Dosagem 2
		3.6	N'	—>	1,0 A	
	Dosear	3.7	L'	—>	1,0 A	Dosagem 3
		3.8	N'	—>	1,0 A	
		3.9	L'	—>	1,0 A	Dosagem 4
		3.10	N'	—>	1,0 A	
	Dosear	3.11	L'	—>	1,0 A	Dosagem 5
		3.12	N'	—>	1,0 A	
		3.13	L'	—>	1,0 A	Dosagem 6
		3.14	N'	—>	1,0 A	
	Sinais do programa	4.1	L'	—>		Paragem do programa Saída
		4.2	N'	—>		
		4.3	L'	—>		Fim de bloco Saída
		4.4	N'	—>		
		4.5	Sinal de co-mutação	<—		Paragem do programa Entrada (Fonte de tensão)
		4.6	Potencial de referência para 4.5	<—		

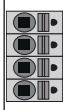
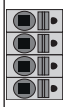
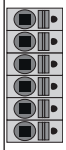
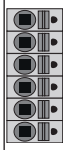
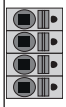
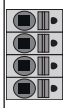
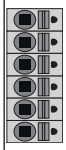
	Apli-cação	Distribuição de terminais	Sinal	Direção do sinal	Capacida-de de corrente	Descrição da função
	Dosear	5.1	L'	—>		Mensagem de estado vazio 1
		5.2	N'	<—		
		5.3	L'	—>		Mensagem de estado vazio 2
		5.4	N'	<—		
		5.5	L'	—>		Mensagem de estado vazio 3
		5.6	N'	<—		
	Dosear	5.7	L'	—>		Mensagem de estado vazio 4
		5.8	N'	<—		
		5.9	L'	—>		Mensagem de estado vazio 5
		5.10	N'	<—		
		5.11	L'	—>		Mensagem de estado vazio 6
		5.12	N'	<—		
	Dosear	6.1	+13 V	—>		Fluxo Volumétrico Dos 1
		6.2	FM 1	<—		
		6.3	GND	—>		
		6.4	+13 V	<—		Fluxo Volumétrico Dos 2
		6.5	FM 2	—>		
		6.6	GND	<—		
	Dosear	6.7	+13 V	—>		Fluxo Volumétrico Dos 3
		6.8	FM 3	<—		
		6.9	GND	—>		
		6.10	+13 V	<—		Fluxo Volumétrico Dos 4
		6.11	FM 4	—>		
		6.12	GND	<—		
	Dosear	6.13	+13 V	—>		Fluxo Volumétrico Dos 5
		6.14	FM 5	<—		
		6.15	GND	—>		
		6.16	+13 V	<—		Fluxo Volumétrico Dos 6
		6.17	FM 6	—>		
		6.18	GND	<—		
	Entrada de água	7.1	+13 V	—>		Fluxímetro 1
		7.2	FRZ 1	<—		
		7.3	GND	—>		
		7.4	+13 V	<—		Fluxímetro 2
		7.5	FRZ 2	—>		
		7.6	GND	<—		
	Entrada de água	7.7	+13 V	—>		Fluxímetro 3
		7.8	FRZ 3	<—		
		7.9	GND	—>		
	Codifi-cação	8.1	COD 1	<—		Ponte de 8.1 para 8.3
		8.2	COD 2	<—		não se aplica
		8.3	GND	—>		Ponte de 8.1 para 8.3

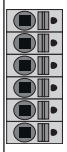
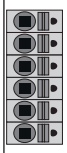
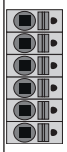
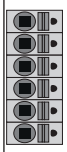
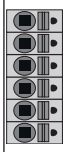
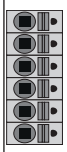
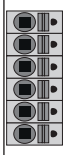
L' = fase comutada, N' = condutor neutro comutado

* ver secção «Capacidade de corrente das entradas e saídas»

Carga de corrente total do sistema eletrónico: ver secção «Instalação».

Tabelas Função e Codificação da Capacidade de Corrente 2

	Apli-cação	Distribuição de terminais	Sinal	Direção do sinal	Capacida-de de corrente	Descrição da função
	Condutor de prote-ção	PE	PE	—>		Condutor de proteção
		PE	PE	—>		
		PE	PE	—>		
		PE	PE	—>		
	WGR	1.1	L'	—>	1,0 A	Bomba WRG ON
		1.2	N'	—>	0,5 A	Válvula WRG
		1.3	L'	<—		não se aplica
		1.4	N'	—>		não se aplica
	WGR	2.1	L'	—>	0,5 A	Saída WRG
		2.2	L'	—>	0,5 A	Entrada WRG
		2.3	L'	<—		não se aplica
		2.4	N'	<—		Posição fechada WRG
		2.5	N'	—>		não se aplica
		2.6	L'	—>		não se aplica
	Dosear	3.1	N'	—>	1,0 A	Fonte de alimentação elétrica ext.
		3.2	L'	—>	1,0 A	
		3.3	L'	—>	1,0 A	Dosagem 7
		3.4	N'	—>	1,0 A	
		3.5	L'	—>	1,0 A	Dosagem 8
		3.6	N'	—>	1,0 A	
	Dosear	3.7	L'	—>	1,0 A	Dosagem 9
		3.8	N'	—>	1,0 A	
		3.9	L'	—>	1,0 A	Dosagem 10
		3.10	N'	—>	1,0 A	
	Dosear	3.11	L'	—>	1,0 A	Dosagem 11
		3.12	N'	—>	1,0 A	
		3.13	L'	—>	1,0 A	Dosagem 12
		3.14	N'	—>	1,0 A	
	Sinais do programa	4.1	L'	—>		não se aplica
		4.2	N'	—>		
		4.3	L'	—>		não se aplica
		4.4	N'	—>		
		4.5	Sinal de co-mutação	<—		não se aplica
		4.6	Potencial de referência para 4.5	<—		

	Apli-cação	Distribuição de terminais	Sinal	Direção do sinal	Capacida-de de corrente	Descrição da função
	Dosear	5.1	L'	—>		Mensagem de estado vazio 7
		5.2	N'	<—		
		5.3	L'	—>		Mensagem de estado vazio 8
		5.4	N'	<—		
		5.5	L'	—>		Mensagem de estado vazio 9
		5.6	N'	<—		
	Dosear	5.7	L'	—>		Mensagem de estado vazio 10
		5.8	N'	<—		
		5.9	L'	—>		Mensagem de estado vazio 11
		5.10	N'	<—		
		5.11	L'	—>		Mensagem de estado vazio 12
		5.12	N'	<—		
	Dosear	6.1	+13 V	—>		Fluxo Volumétrico Dos 7
		6.2	FM 1	<—		
		6.3	GND	—>		
		6.4	+13 V	<—		Fluxo VolumétricoDos 8
		6.5	FM 2	—>		
		6.6	GND	<—		
	Dosear	6.7	+13 V	—>		Fluxo Volumétrico Dos 9
		6.8	FM 3	<—		
		6.9	GND	—>		
		6.10	+13 V	<—		Fluxo Volumétrico Dos 10
		6.11	FM 4	—>		
		6.12	GND	<—		
	Dosear	6.13	+13 V	—>		Fluxo Volumétrico Dos 11
		6.14	FM 5	<—		
		6.15	GND	—>		
		6.16	+13 V	<—		Fluxo Volumétrico Dos 12
		6.17	FM 6	—>		
		6.18	GND	<—		
	Entrada de água	7.1	+13 V	—>		Fluxímetro 4
		7.2	FRZ 1	<—		
		7.3	GND	—>		
		7.4	+13 V	<—		Fluxímetro 5
		7.5	FRZ 2	—>		
		7.6	GND	<—		
	Entrada de água	7.7	+13 V	—>		Fluxímetro 6
		7.8	FRZ 3	<—		
		7.9	GND	—>		
	Codifi-cação	8.1	Código 1	<—		não se aplica
		8.2	Código 2	<—		Ponte de 8.2 para 8.3
		8.3	GND	—>		Ponte de 8.2 para 8.3

L' = fase comutada, N' = condutor neutro comutado

* ver secção «Capacidade de corrente das entradas e saídas»

Carga de corrente total do sistema eletrónico: ver secção «Instalação».

Ligação elétrica

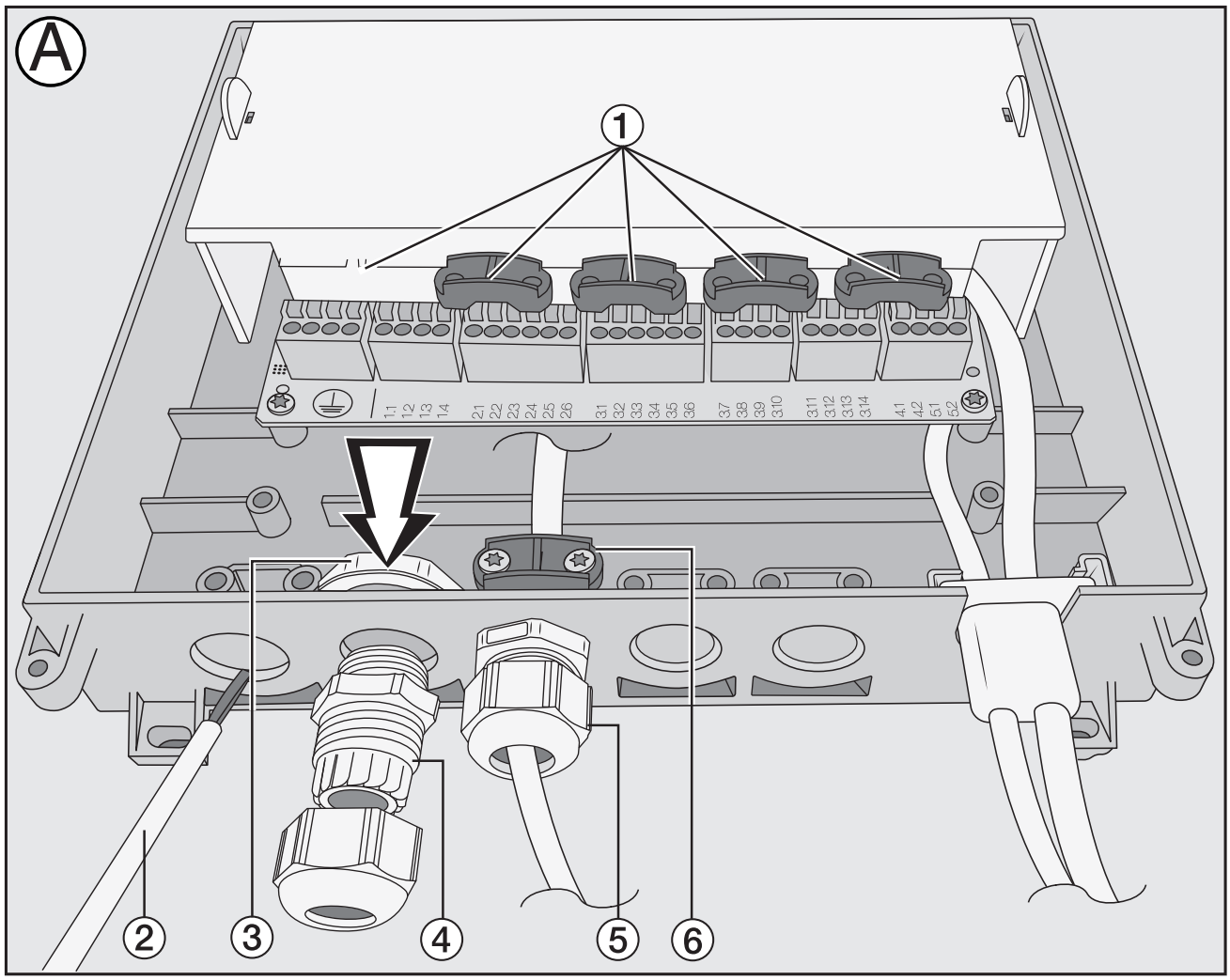
A Connector Box é alimentada com tensão de rede através da máquina Miele Professional.

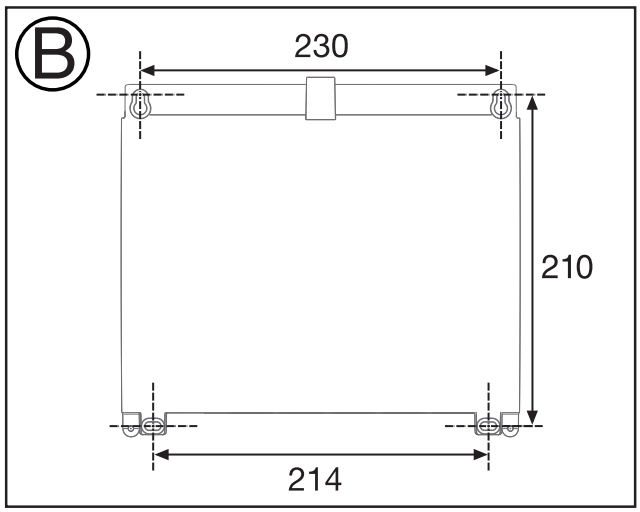
A Connector Box não possui qualquer interruptor adicional para *Ligar/Desligar*.

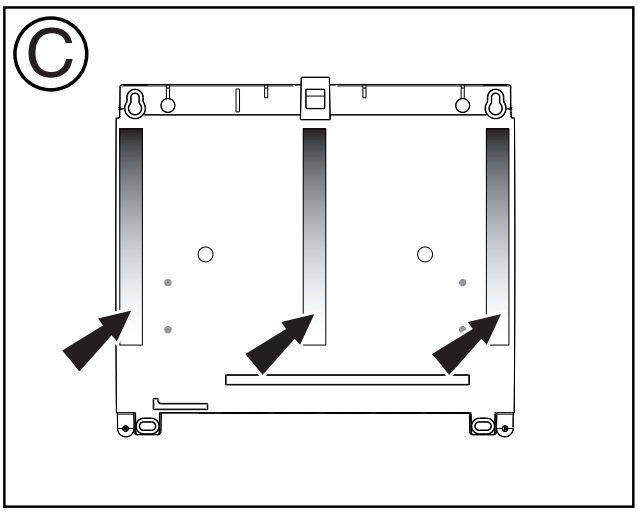
⚠ Danos na Connector Box devido a ligação incorreta.
A Connector Box pode ficar danificada devido a sobrecorrente.
Não é permitida a operação da Connector Box com tensão externa.

Dados técnicos

Tensão	200 V–240 V
Frequência	50 Hz/60 Hz
Intervalo de temperatura para o funcionamento	2 °C–35 °C

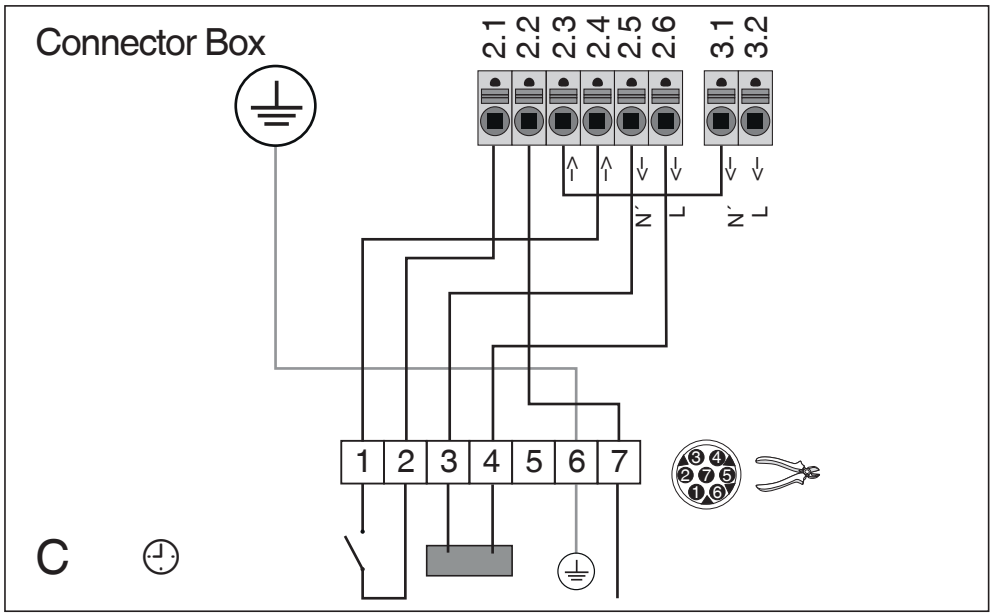

A
1
2
3
4
5
6


B
230
210
214

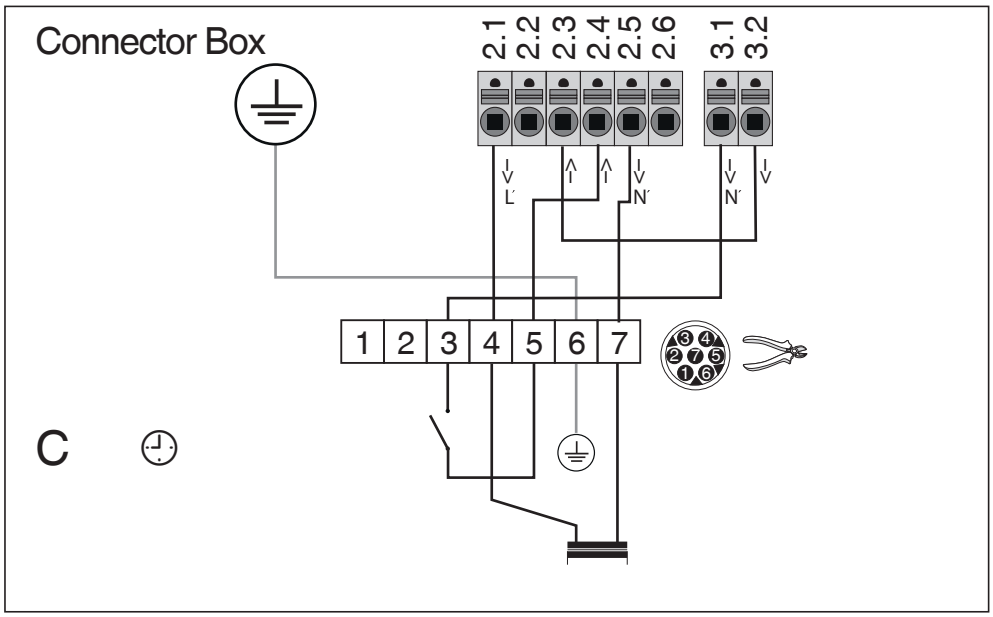

C

(Modo temporizado)

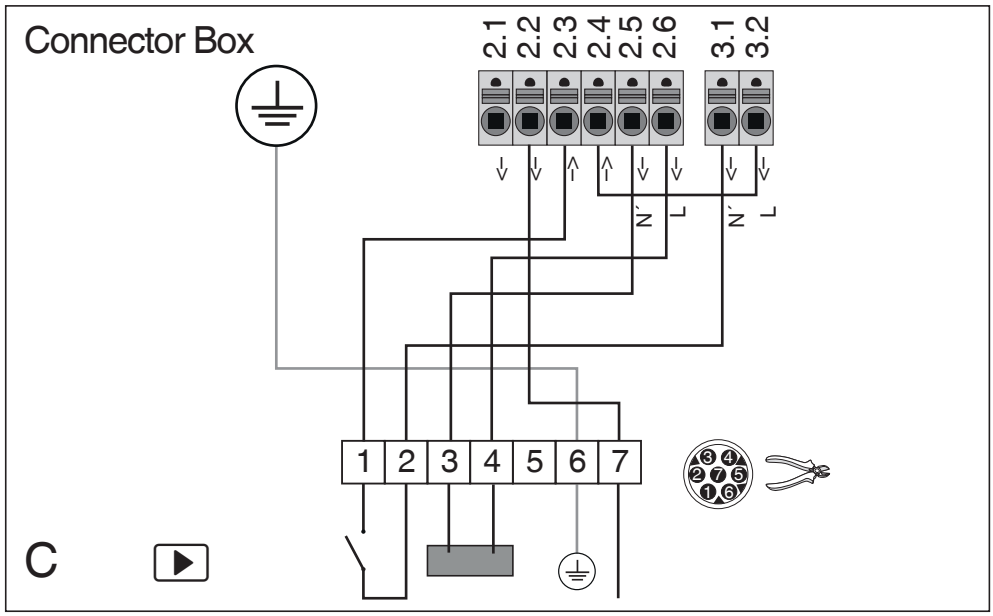
C4030, C4031, C4065, C4070, C4080



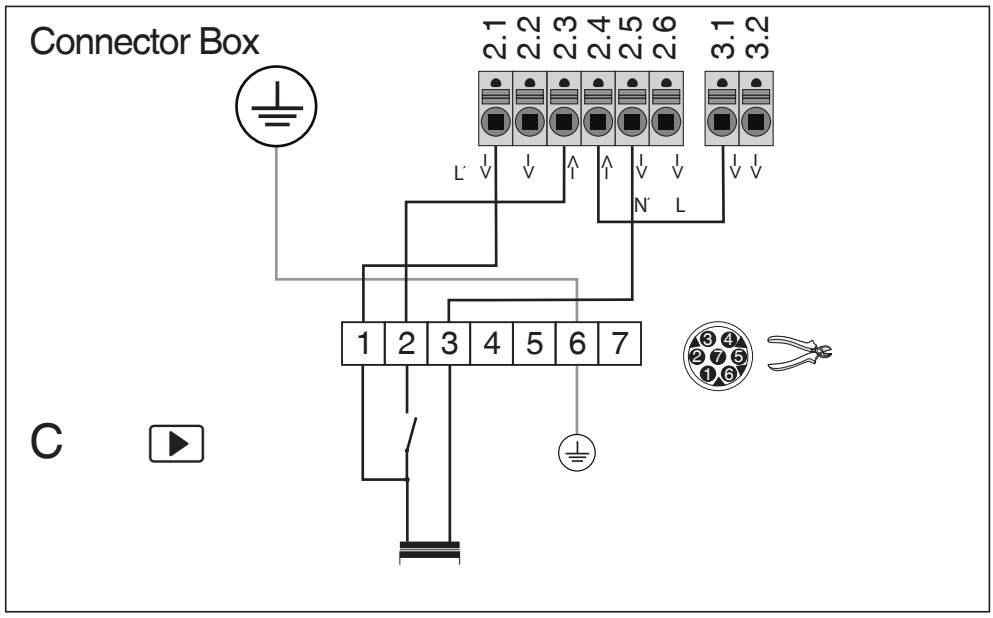
C5003



C4030, C4031, C4065, C4070, C4080



C4060, C5002, C5004



it - Indice

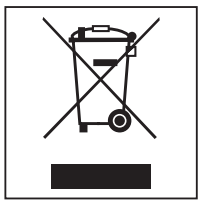
Smaltimento dell'imballaggio

L'imballaggio protegge il Box Connector durante il trasporto. I materiali utilizzati per l'imballaggio sono riciclabili, in quanto selezionati secondo criteri di rispetto dell’ambiente e di facilità di smaltimento.

Restituire gli imballaggi al circuito di raccolta dei materiali consente da una parte di risparmiare materie prime e inoltre di ridurre il volume dei rifiuti. Il simbolo del cassonetto barrato indica che il prodotto alla fine della propria vita utile deve essere raccolto separatamente dagli altri rifiuti. L'apparecchio contiene anche sostanze nocive, necessarie per il suo funzionamento e la sua sicurezza. L'adeguata raccolta differenziata per l'avvio successivo dell'apparecchiatura dismessa al riciclaggio, al trattamento e allo smaltimento compatibile contribuisce a evitare possibili effetti negativi sull'ambiente e sulla salute e favorisce il riciclo dei materiali di cui è composta l'apparecchiatura. Per la gestione del recupero e dello smaltimento degli elettrodomestici, Miele Italia aderisce al consorzio Ecodom (Consorzio Italiano Recupero e Riciclaggio Elettrodomestici). Lo smaltimento abusivo del prodotto da parte dell'utente comporta l'applicazione di sanzioni previste dalla normativa vigente. Conservare l'apparecchiatura dismessa fuori della portata dei bambini fino al momento del suo effettivo smaltimento.

Smaltimento delle apparecchiature

Le apparecchiature elettriche ed elettroniche contengono spesso materiali utili. Contengono altresì sostanze, composti e componenti che erano necessari per il funzionamento e la sicurezza dell'apparecchiatura stessa. Smaltirli in modo non adeguato o nei rifiuti domestici potrebbe nuocere alla salute e all'ambiente. In nessun caso quindi smaltire queste apparecchiature nei normali rifiuti domestici.



Il simbolo del cassonetto barrato indica che il prodotto deve essere conferito agli idonei centri di raccolta differenziata allestiti dai comuni o dalle società di igiene urbana oppure riconsegnato gratuitamente al rivenditore al momento dell'acquisto di una nuova apparecchiatura di tipo equivalente, in ragione di uno a uno. L'utente è tenuto a cancellare eventuali dati personali dall'apparecchiatura elettronica da smaltire. L'adeguata raccolta differenziata contribuisce a evitare possibili effetti negativi sull'ambiente e sulla salute e favorisce il riciclo dei materiali di cui è composta l'apparecchiatura. Per la gestione del recupero e dello smaltimento degli elettrodomestici, Miele Italia aderisce al consorzio Ecodom (Consorzio Italiano Recupero e Riciclaggio Elettrodomestici).

Smaltimento dei rifiuti di apparecchiature elettriche ed elettroniche (RAEE), ai sensi del Decr. legisl. 14 marzo 2014, n. 49 in attuazione della Direttiva 2012/19/UE e sui RAEE sullo smaltimento dei rifiuti di apparecchiature elettriche ed elettroniche.

Accertarsi che fino al momento dello smaltimento l'apparecchiatura sia tenuta lontana dai bambini.

Questo Box Connector è conforme alle vigenti norme di sicurezza. Un uso improprio può comunque causare danni a persone e/o cose.

Leggere dapprima le istruzioni d'uso e di montaggio per il Box Connector. Contengono istruzioni importanti per la sicurezza, l'uso e la manutenzione del Box Connector. In questo modo si evitano danni a se stessi e alle apparecchiature.

Conservare le presenti istruzioni d'uso e di montaggio e consegnarle anche a eventuali altri utenti.

Uso previsto

▶ Il Box Connector è predisposto esclusivamente per creare una connessione tra una macchina Miele Professional e un hardware esterno come p.es. un impianto di spegnimento carico di punta, una gettoniera, un aspiratore aggiuntivo, uno sportellino di sfiato o pompe di dosaggio. Qualsiasi altro uso può rivelarsi pericoloso.
Miele non risponde di danni causati da un uso diverso da quello previsto o da impostazioni sbagliate dell'apparecchio.

▶ Il box Connector Box è destinato esclusivamente per l'uso combinato con le macchine Miele Professional con un accoppiamento di allacciamento predisposto di serie.

Sicurezza tecnica

▶ L'incasso e il montaggio del Box Connector possono essere eseguiti solo da elettricisti specializzati che garantiscano i presupposti per l'uso corretto.

▶ Prima di montarlo, controllare che il Box Connector non presenti danni esterni visibili. Un Box Connector danneggiato non può essere installato e messo in funzione.

▶ Il Box Connector non può essere riparato in caso di difetto o danneggiamento.
In questi casi sostituire il Box Connector solo con un nuovo box.

▶ Il Box Connector è staccato dalla rete elettrica solo se il distacco della macchina Miele Professional avviene secondo le indicazioni riportate nelle istruzioni d'uso e di posizionamento.

▶ I cavi di allacciamento della macchina Miele Professional verso il Box Connector non devono essere incastrati.

▶ Il Box Connector deve essere montato dal committente o fissato alla macchina con un fissaggio speciale (accessori su richiesta).

▶ Dopo il montaggio a parete, il Box deve essere accessibile in caso di intervento tecnico.

▶ Il montaggio e la posa dei cavi di allacciamento verso il Box Connector devono essere eseguiti a regola d'arte.

▶ I fermacavo forniti di serie e i raccordi con i controdadi per l'allacciamento dell'hardware esterno devono essere utilizzati.

Funzionamento

Mediante il Box Connector è possibile allacciare alla macchina Miele Professional gli hardware esterni di Miele e di altri fornitori. Hardware esterni sono p.es. gettoniere, sistemi di dosaggio, impianti di spegnimento carico di punta, sensori di pressione, sportellini esterni di sfiato ecc.

Funzioni dei Box Connector:

Box Connector codifica 1	Box Connector codifica 2
- Dosaggio 1-6	- Dosaggio 7-12
- Segnalazione livello del vuoto 1-6	- Segnalazione livello del vuoto 7-12
- Portata 1-3	- Portata 4-6
- Spegnimento carico massimo di punta	- Modulo recupero acqua
- Gettoniera	- Segnali programma
- Segnali programma	

A una lavatrice è possibile allacciare max. 2 box. La lavatrice è dotata di serie di un allacciamento per un Box Connector. Per utilizzare un secondo Box, occorre ordinare il kit APWM020 e farlo installare da un elettricista qualificato.

I Box Connector possono essere collegati ai due allacciamenti della lavatrice poiché solo la codifica decide di quale Box si tratta. Nella lavatrice gli allacciamenti sono collegati in parallelo e sono quindi identici in termini di segnalazione.

I Box Connector devono essere codificati per il funzionamento. Mediante la codifica si stabilisce il funzionamento (v. tabelle funzioni e capacità di corrente codifica 1/2). La codifica è necessaria anche utilizzando un box.

I Box Connector sono codificati con il ponticello inserito di serie nel collegamento 8.3. Per le funzioni del Box Connector 1 (v. tabelle funzioni e capacità di corrente codifica 1) si inserisce il ponticello nell'allacciamento 8.1. Per le funzioni del Box Connector 2 (v. tabelle funzioni e capacità di corrente codifica 2) si inserisce il ponticello nell'allacciamento 8.2.

Ulteriori informazioni sull'attivazione dell'elettronica della macchina sono contenute nelle istruzioni d'uso della lavatrice. (capitolo livello gestore)

Queste istruzioni d'uso e di montaggio rappresentano in prima linea un'indicazione per allacciare le gettoniere. Gli allacciamenti di altri hardware esterni oltre le gettoniere devono essere eseguiti da personale autorizzato dal produttore di hardware.

Prima di fissare il Box Connector

- Il Box Connector deve essere avvitato correttamente. Per le misure per praticare i fori alla parete v. capitolo "🔧", immagine Ⓑ al termine di queste istruzioni d'uso e di montaggio.
- In alternativa è possibile fissare il Box Connector alla parete con le strisce adesive allegate. Tenere presente:
  - all'esterno e al centro le strisce adesive si incollano sul retro. Vedi capitolo "🔧", immagine Ⓒ al termine di queste istruzioni d'uso e di montaggio.
  - La superficie della parete deve essere liscia, stabile e non presentare punti di grasso o di polvere.
  - Sulla parete non devono esserci carta da parati, intonaco e altre superfici con insufficienti proprietà adesive.
  - L'altezza massima di montaggio non deve superare 1,50 m.

Il Box Connector non deve essere installato su punti di acqua aperti, canalette di scolo o sistemi similari.

⚠ Pericolo di scossa elettrica se dovesse cadere il Box Connector.
Il Box Connector può cadere se il fissaggio è difettoso o errato e questo potrebbe causare scosse elettriche.
Se il Box cade non può più essere utilizzato. Sostituire il Box Connector con un box nuovo oppure farlo controllare dall'assistenza tecnica autorizzata Miele.

Eseguire l'installazione

Le riparazioni devono essere effettuate solo da elettricisti qualificati nel rispetto delle vigenti norme di sicurezza.

- Staccare la macchina Miele Professional dalla rete elettrica.
- Fissare il Box Connector con 4 viti allegate (4x40) e tasselli (S6) alla parete. Vedi capitolo "🔧", immagine Ⓑ.
- In alternativa è possibile fissare il Box Connector alla parete con le strisce adesive allegate. Vedi capitolo "🔧", immagine Ⓒ.
- Eseguire il collegamento del Box Connector verso la macchina Miele Professional e verso l'hardware esterno (p.es. gettoniera).

Per gli hardware esterni allacciati di altri produttori si deve raggiungere una sezione minima di almeno 1,0 mm^2 per una lunghezza massima del cavo pari a 2,50 m.

Montare il fermacavo

Il cavo di alimentazione degli hardware esterni deve essere fissato con raccordi e fermacavo al Box Connector. Vedi capitolo "🔧", immagine Ⓐ al termine di queste istruzioni d'uso e di montaggio.

- Togliere il coperchio del Box Connector (svitare 2 viti).

- Togliere uno o diversi fermacavo ①.
- Disporre il Box Connector sul lato stretto in modo che i fori di allacciamento chiusi siano in alto.
- Rimuovere con un cacciavite la parte rotonda, contrassegnata nel foro di allacciamento ②.

Suggerimento: Rompere la scanalatura perimetrale in più punti con il cacciavite.

- Inserire il controdado ③.
- Avvitare il componente filettato ④.

Suggerimento: Spostare il tappo filettato ⑤ sulla parte terminale del cavo di alimentazione degli hardware esterni.

- Far passare il cavo di alimentazione attraverso l'elemento filettato nel Box Connector.
- Avvitare bene il tappo filettato.

Il tappo protegge da umidità e polvere.

- Fissare il cavo di alimentazione con il fermacavo ⑥.
- Eseguire gli allacciamenti necessari nel Box Connector per gli hardware esterni.
- Chiudere il coperchio del Box Connector (avvitare 2 viti).

Legenda per il fermacavo al capitolo "🔧", immagine Ⓐ

① Fermacavo
② Foro di allacciamento
③ Controdado
④ Elemento filettato
⑤ Tappo filettato
⑥ Fermacavo con viti

Programmazione

Dopo l'installazione del Box Connector eseguire sulla rispettiva macchina Miele Professional le impostazioni per le funzioni esterne.

Seguire le indicazioni nelle istruzioni d'uso e di montaggio per la macchina Miele Professional.

Per la comunicazione con hardware esterni (gettoniera, unità di dosaggio...) è necessario eseguire le impostazioni/programmazioni sulla macchina Miele Professional.

Capacità di corrente degli ingressi e delle uscite

Al momento dell'installazione accertarsi che l'assorbimento di corrente dei componenti aggiuntivi allacciati non superi le singole correnti consentite e la massima potenza assorbita nel neutro.

Al momento dell'installazione accertarsi che con l'allacciamento della lavatrice o dell'essiccatoio assieme al Box Connector e all'hardware collegato non si superi la corrente di sicurezza della rete di tensione.

Gli ingressi e le uscite sono predisposti per le correnti singolarmente, come descritto nel paragrafo "Tabella capacità di corrente".

L'elemento di comando per il contatto 3.3 è predisposto in modo che possa essere acceso anche un aspiratore con inverter.

Per gli hardware esterni allacciati di altri produttori si deve raggiungere una sezione minima di almeno 1,0 mm^2 per una lunghezza massima del cavo pari a 2,50 m.

Sensore di rilevamento del vuoto

Sulle posizioni 4.1 e 4.2 del morsetto si allaccia il sensore di rilevamento del vuoto. Esse corrispondono alla bassa tensione di protezione (classe di protezione III).

Attenersi alle indicazioni del produttore di sensori.
I cavi devono essere posati separatamente da tutti gli altri cavi.

Installare la gettoniera

Gettoniera a tempo

Lo schema di allacciamento si trova alla fine di queste istruzioni d'uso e di montaggio al capitolo ◴ (“Timed operation”).

- C4030, C4031, C4065, C4070, C4080
- C5003

Gettoniera con funzionamento a programma

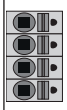
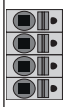
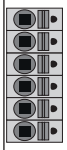
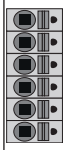
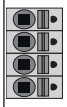
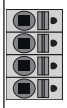
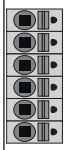
Lo schema di allacciamento si trova alla fine di queste istruzioni d'uso e di montaggio al capitolo ▶ (“Programme operation”).

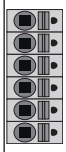
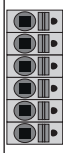
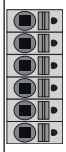
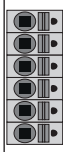
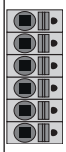
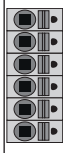
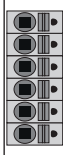
- C4030, C4031, C4060, C4065, C4070, C4080
- C5002, C5004

Legenda

	Accoppiamento a 7 poli della gettoniera
	L'accoppiamento a 7 poli della gettoniera può essere rimosso per allacciare i cavi direttamente tramite i morsetti del Box Connector.
Box Connector	Boccole morsetti del Box Connector
C	Rappresentazione schematica del collegamento elettrico sulla gettoniera
◴	Funzionamento a tempo
▶	Funzionamento a programma
⏚	Simbolo per morsetti PE (messa a terra)

Tabella funzionamento e capacità di corrente codifica 1

	Utilizzo	Posizione sui morsetti	Segnale	Direzione segnale	Capacità corrente	Descrizione funzionamento
	Messa a terra	PE	PE	—>		Messa a terra
		PE	PE	—>		Messa a terra
		PE	PE	—>		Messa a terra
		PE	PE	—>		Messa a terra
	Carico di punta	1.1	L'	—>	1,0 A	a Uscita messaggio di accensione
		1.2	N'	—>	1,0 A	b Uscita richiesta di riscaldamento
		1.3	L'	<—		c Ingresso autorizzazione riscaldamento
		1.4	N'	—>		d Neutro
	Gettoniera	2.1	L'	—>	0,5 A	L'apparecchio è pronto per il funzionamento
		2.2	L'	—>	0,5 A	Stato del programma
		2.3	L'	<—		Impulso acquisto programmi
		2.4	N'	<—		Segnale di acquisto a tempo
		2.5	N'	—>		Alimentazione tensione
		2.6	L'	—>		
	Dosaggio	3.1	N'	—>	1,0 A	Alimentazione tensione est.
		3.2	L'	—>	1,0 A	
		3.3	L'	—>	1,0 A	Dosaggio 1
		3.4	N'	—>	1,0 A	
		3.5	L'	—>	1,0 A	Dosaggio 2
		3.6	N'	—>	1,0 A	
	Dosaggio	3.7	L'	—>	1,0 A	Dosaggio 3
		3.8	N'	—>	1,0 A	
		3.9	L'	—>	1,0 A	Dosaggio 4
		3.10	N'	—>	1,0 A	
	Dosaggio	3.11	L'	—>	1,0 A	Dosaggio 5
		3.12	N'	—>	1,0 A	
		3.13	L'	—>	1,0 A	Dosaggio 6
		3.14	N'	—>	1,0 A	
	Segnali programma	4.1	L'	—>		Uscita stop programma
		4.2	N'	—>		
		4.3	L'	—>		Uscita fine blocco
		4.4	N'	—>		
		4.5	Segnale di azionamento	<—		Stop programma ingresso (fonte tensione)
		4.6	Potenziale di riferimento per 4.5	<—		

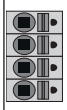
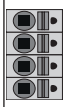
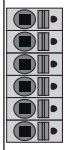
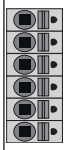
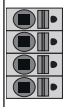
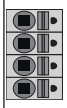
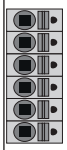
	Utilizzo	Posizione sui morsetti	Segnale	Direzione segnale	Capacità corrente	Descrizione funzionamento
	Dosaggio	5.1	L'	—>		Segnalazione livello del vuoto 1
		5.2	N'	<—		
		5.3	L'	—>		Segnalazione livello del vuoto 2
		5.4	N'	<—		
		5.5	L'	—>		Segnalazione livello del vuoto 3
		5.6	N'	<—		
	Dosaggio	5.7	L'	—>		Segnalazione livello del vuoto 4
		5.8	N'	<—		
		5.9	L'	—>		Segnalazione livello del vuoto 5
		5.10	N'	<—		
		5.11	L'	—>		Segnalazione livello del vuoto 6
		5.12	N'	<—		
	Dosaggio	6.1	+13V	—>		Portata dos 1
		6.2	FM 1	<—		
		6.3	GND	—>		
		6.4	+13V	<—		Portata dos 2
		6.5	FM 2	—>		
		6.6	GND	<—		
	Dosaggio	6.7	+13V	—>		Portata dos 3
		6.8	FM 3	<—		
		6.9	GND	—>		
		6.10	+13V	<—		Portata dos 4
		6.11	FM 4	—>		
		6.12	GND	<—		
	Dosaggio	6.13	+13V	—>		Portata dos 5
		6.14	FM 5	<—		
		6.15	GND	—>		
		6.16	+13V	<—		Portata dos 6
		6.17	FM 6	—>		
		6.18	GND	<—		
	Afflusso idrico	7.1	+13V	—>		Flussometro 1
		7.2	FRZ 1	<—		
		7.3	GND	—>		
		7.4	+13V	<—		Flussometro 2
		7.5	FRZ 2	—>		
		7.6	GND	<—		
	Afflusso idrico	7.7	+13V	—>		Flussometro 3
		7.8	FRZ 3	<—		
		7.9	GND	—>		
	Codifica	8.1	COD 1	<—		Ponte da 8.1 a 8.3
		8.2	COD 2	<—		non assegnato
		8.3	GND	—>		Ponte da 8.1 a 8.3

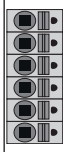
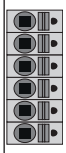
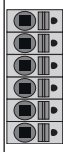
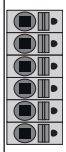
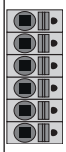
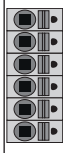
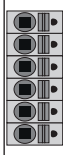
L' = fase azionata, N' = neutro azionato

* v. paragrafo "Capacità corrente degli ingressi e delle uscite"

Carico corrente totale dell'elettronica: v. paragrafo "Installazione".

Tabella funzionamento e capacità di corrente codifica 2

	Utilizzo	Posizione sui morsetti	Segnale	Direzione segnale	Capacità corrente	Descrizione funzionamento
	Messa a terra	PE	PE	—>		Messa a terra
		PE	PE	—>		
		PE	PE	—>		
		PE	PE	—>		
	WRG	1.1	L'	—>	1,0 A	WRG pompa ON
		1.2	N'	—>	0,5 A	WRG valvola
		1.3	L'	<—		non assegnato
		1.4	N'	—>		non assegnato
	WRG	2.1	L'	—>	0,5 A	WRG scarico
		2.2	L'	—>	0,5 A	WRG afflusso
		2.3	L'	<—		non assegnato
		2.4	N'	<—		WRG pos. off
		2.5	N'	—>		non assegnato
		2.6	L'	—>		non assegnato
	Dosaggio	3.1	N'	—>	1,0 A	Alimentazione tensione est.
		3.2	L'	—>	1,0 A	
		3.3	L'	—>	1,0 A	Dosaggio 7
		3.4	N'	—>	1,0 A	
		3.5	L'	—>	1,0 A	Dosaggio 8
		3.6	N'	—>	1,0 A	
	Dosaggio	3.7	L'	—>	1,0 A	Dosaggio 9
		3.8	N'	—>	1,0 A	
		3.9	L'	—>	1,0 A	Dosaggio 10
		3.10	N'	—>	1,0 A	
	Dosaggio	3.11	L'	—>	1,0 A	Dosaggio 11
		3.12	N'	—>	1,0 A	
		3.13	L'	—>	1,0 A	Dosaggio 12
		3.14	N'	—>	1,0 A	
	Segnali programma	4.1	L'	—>		non assegnato
		4.2	N'	—>		
		4.3	L'	—>		non assegnato
		4.4	N'	—>		
		4.5	Segnale di azionamento	<—		non assegnato
		4.6	Potenziale di riferimento per 4.5	<—		

	Utilizzo	Posizione sui morsetti	Segnale	Direzione segnale	Capacità corrente	Descrizione funzionamento
	Dosaggio	5.1	L'	—>		Segnalazione livello del vuoto 7
		5.2	N'	<—		
		5.3	L'	—>		Segnalazione livello del vuoto 8
		5.4	N'	<—		
		5.5	L'	—>		Segnalazione livello del vuoto 9
		5.6	N'	<—		
	Dosaggio	5.7	L'	—>		Segnalazione livello del vuoto 10
		5.8	N'	<—		
		5.9	L'	—>		Segnalazione livello del vuoto 11
		5.10	N'	<—		
		5.11	L'	—>		Segnalazione livello del vuoto 12
		5.12	N'	<—		
	Dosaggio	6.1	+13V	—>		Portata dos 7
		6.2	FM 1	<—		
		6.3	GND	—>		
		6.4	+13V	<—		Portata dos 8
		6.5	FM 2	—>		
		6.6	GND	<—		
	Dosaggio	6.7	+13V	—>		Portata dos 9
		6.8	FM 3	<—		
		6.9	GND	—>		
		6.10	+13V	<—		Portata dos 10
		6.11	FM 4	—>		
		6.12	GND	<—		
	Dosaggio	6.13	+13V	—>		Portata dos 11
		6.14	FM 5	<—		
		6.15	GND	—>		
		6.16	+13V	<—		Portata dos 12
		6.17	FM 6	—>		
		6.18	GND	<—		
	Afflusso idrico	7.1	+13V	—>		Flussometro 4
		7.2	FRZ 1	<—		
		7.3	GND	—>		
		7.4	+13V	<—		Flussometro 5
		7.5	FRZ 2	—>		
		7.6	GND	<—		
	Afflusso idrico	7.7	+13V	—>		Flussometro 6
		7.8	FRZ 3	<—		
		7.9	GND	—>		
	Codifica	8.1	Codice 1	<—		non assegnato
		8.2	Codice 2	<—		Ponte da 8.2 a 8.3
		8.3	GND	—>		Ponte da 8.2 a 8.3

L' = fase azionata, N' = neutro azionato

* v. paragrafo "Capacità corrente degli ingressi e delle uscite"

Carico corrente totale dell'elettronica: v. paragrafo "Installazione".

Allacciamento elettrico

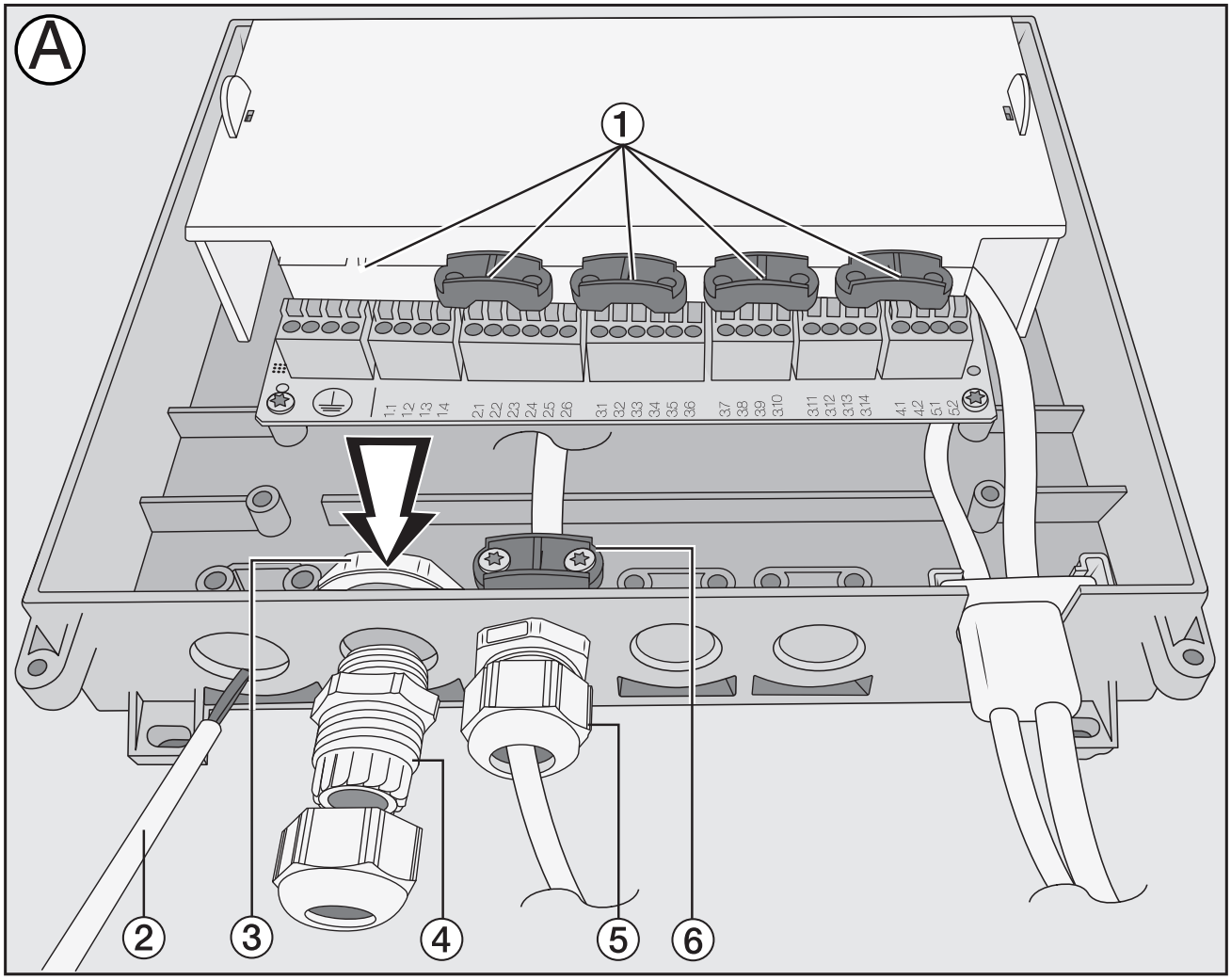
Il Box Connector è alimentato con tensione di rete attraverso la macchina Miele Professional.

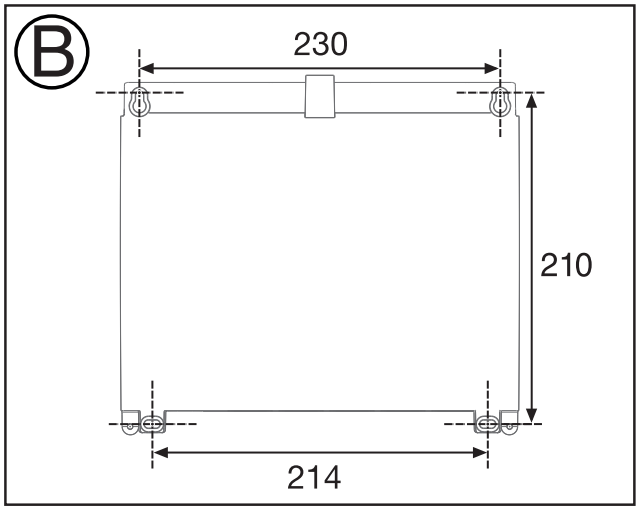
Il Box non ha un interruttore aggiuntivo *On*/*Off*.

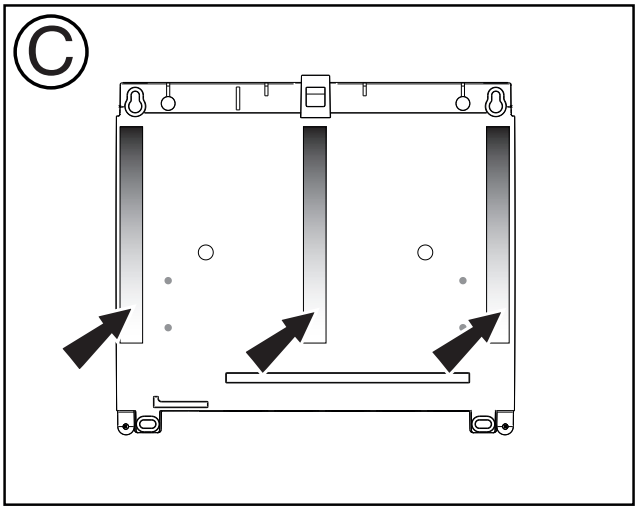
⚠ Danneggiamento del Box a causa di un allacciamento scorretto.
Il Box può danneggiarsi a causa dell'eccessiva corrente.
L'azionamento del Box con tensione esterna non è consentito.

Dati tecnici

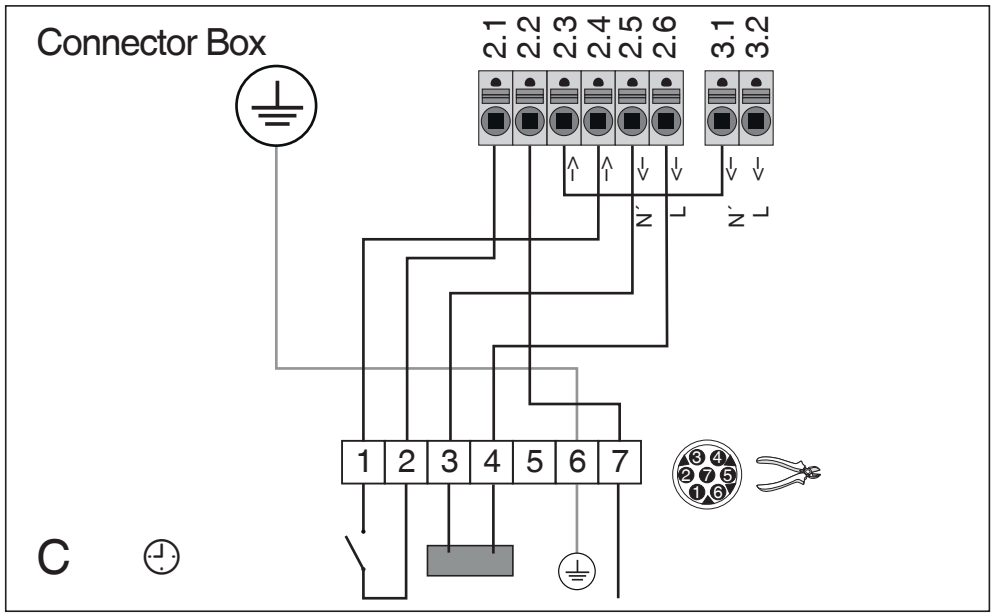
Tensione	200 V–240 V
Frequenza	50 Hz/60 Hz
Area temperatura per il funzionamento	2 °C–35 °C


A
1
1.1 1.2 1.3 1.4
2.1 2.2 2.3 2.4 2.5 2.6
3.1 3.2 3.3 3.4 3.5 3.6
3.7 3.8 3.9 3.10
3.11 3.12 3.13 3.14
4.1 4.2
5.1 5.2
2
3
4
5
6

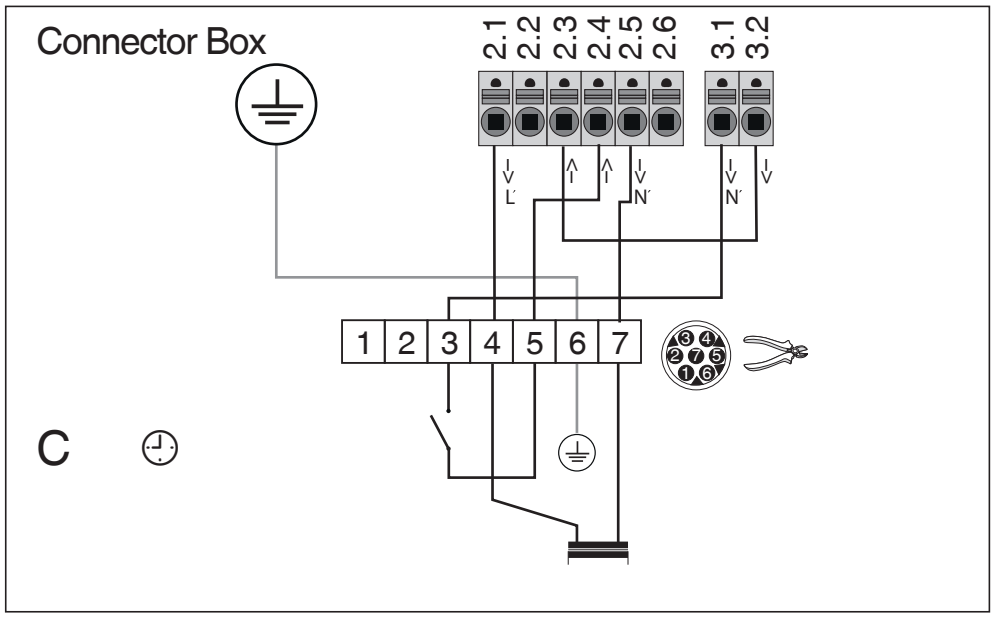

B
230
210
214


C

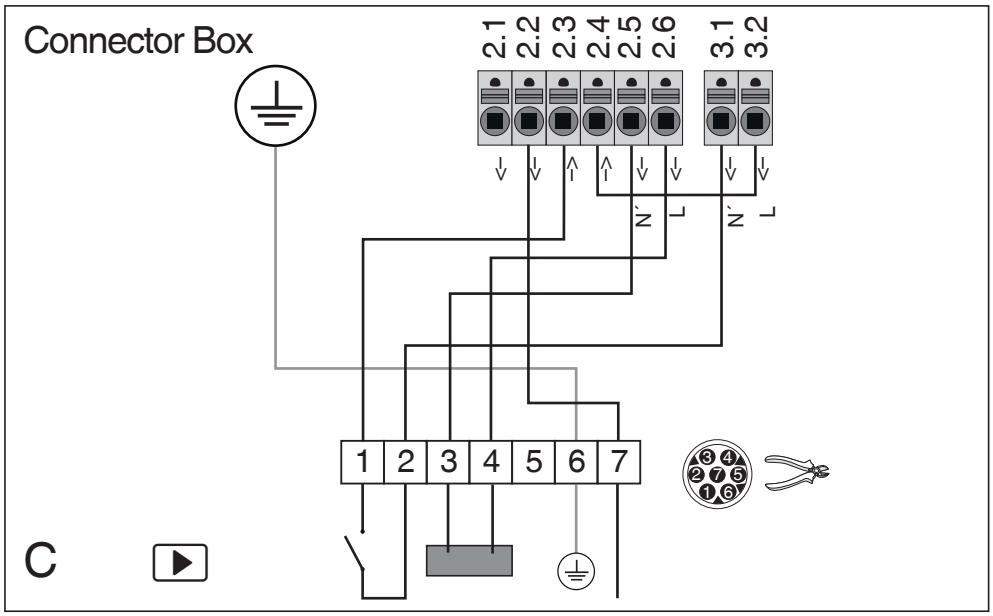
C4030, C4031, C4065, C4070, C4080



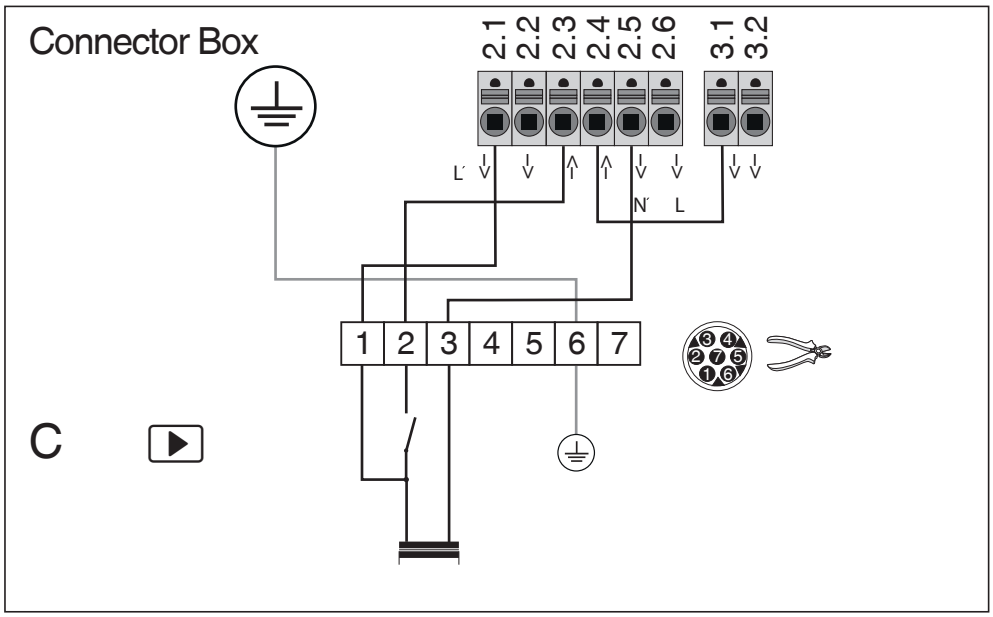
C5003



C4030, C4031, C4065, C4070, C4080



C4060, C4065, C5002, C5004



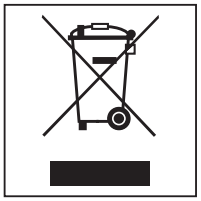
A szállítási csomagolóanyagok ártalmatlanítása

A csomagolás megvédi a Connector-Box egységet a szállítási sérülésektől. A csomagolóanyagokat környezetvédelmi és hulladékkezelés-technikai szempontok alapján választottuk ki, ezért újrahasznosíthatók.

A csomagolásnak az anyagkörforgásba való visszavezetése nyersanyagot takarít meg és csökkenti a keletkező hulladék mennyiségét. A szakkereskedő visszaveszi a csomagolást.

A régi készülék ártalmatlanítása

A elektromos és elektronikus készülékek még jelentős mennyiségben tartalmaznak értékes anyagokat. Tartalmaznak olyan anyagokat, összetevőket és alkatrészeket is, amelyek a készülékek működéséhez és biztonságához szükségesek voltak. Ezek a szemétbe kerülve vagy nem megfelelő kezelés esetén ártalmassá válhatnak az emberi egészségre és a környezetre. Ezért semmi esetre se dobja a háztartási szemétbe a régi készülékét.



Ehelyett használja az elektromos és elektronikus készülékek leadására és hasznosítására szolgáló hivatalos, kijelölt gyűjtő és visszavételi helyeket a lakóhelyén, a kereskedőknél vagy a Mielénél. A selejtezendő készüléken lévő esetleges személyes adatok eltávolításáért törvényileg saját maga felel. Kérjük, gondoskodjon arról, hogy selejtezendő készüléke az elszállításig gyermekbiztosan legyen tárolva.

A Connector Box megfelel a biztonsági előírásoknak. Szakszerűtlen használata azonban személyi sérülésekhez és vagyoni károkhoz vezethet.

Először olvassa el a Connector Box használati és szerelési útmutatóját. Fontos útmutatásokat ad a Connector Box biztonságára, használatára és karbantartására vonatkozóan. Ezáltal védi önmagát, és elkerüli a készülék károsodását.

Őrizze meg a használati és szerelési útmutatót, és adja azt tovább az esetleges következő tulajdonosnak.

▶ A Connector Box kizárólag arra szolgál, hogy összekapcsolják a Miele Professional készüléket egy külső hardverrel, például a csúcsidő-kizárási lekapcsolással, érmebedobó rendszerrel, kiegészítő fúvókával, szellőző fedéllel vagy adagolószivattyúval. Minden más felhasználás veszélyes lehet.
A Miele nem felel a nem rendeltetésszerű használatból vagy helytelen kezelésből eredő károkért.

▶ Az Connector Box-Box kizárólag egy Miele Professional készüléken, gyárilag kialakított csatlakozóval használható.

Műszaki biztonság

▶ A Connector Box beépítését és összeszerelését csak elektrotechnikai szakemberek végezhetik el, akik biztosítják a szakszerű használat feltételeit.

▶ A Connector Box beépítése előtt ellenőrizze, hogy vannak-e rajta látható, külső sérülések. Sérült Connector Box egységet nem szabad beszerelni és üzembe helyezni.

▶ A meghibásodott vagy sérült Connector Box nem javítható.
Ebben az esetben a Connector Box csak egy új egységgel pótolható.

▶ A Connector Box csak akkor választható le az elektromos hálózatról, ha a Miele Professional készüléket a használati és felállítási útmutató szerint választják le a hálózatról.

▶ A Miele Professional készülék és a Connector Box közötti csatlakozóvezetékeket nem szabad becsíptetni.

▶ A Connector Box egységet a kivitelezőnek kell felszerelnie, és egy speciális rögzítővel (utólag vásárolható tartozék) kell a gépre szerelnie.

▶ Ha a falra szerelik fel a Connector Box egységet, akkor annak szervizelés céljából hozzáférhető helyen kell lennie.

▶ A Connector Box csatlakozóvezetékeit szakszerűen kell összeszerelni és elhelyezni.

▶ A külső hardver csatlakoztatásához a gyárilag szállított kábelvezetőket és biztosító anyákkal ellátott kábelcsavarokat kell használni.

Működési mód

A Connector Box egységgel a Miele és más gyártók hardvereit lehet rácsatlakoztatni a Miele Professional készülékre. Ilyen hardverek például az érmebedobó rendszerek, adagolórendszerek, csúcsterhelés-kizáró berendezések, nyomásérzékelők, külső szellőző fedelek stb.

A Connector Box egységek funkciói:

Connector Box kódolás 1	Connector Box kódolás 2
- Adagolás 1-6	- Adagolás 7-12
- Kiürülést jelző üzenet 1-6	- Kiürülést jelző üzenet 7-12
- Átfolyási mennyiség 1-3	- Átfolyási mennyiség 4-6
- Csúcsidő-kizárási lekapcsolás	- Vízvisszanyerés
- Fizetőrendszer	- Program jelzés
- Program jelzés	

Egy mosógéphez legfeljebb 2 Box csatlakoztatható. A mosógép gyárilag egy Connector Box csatlakozással van felszerelve. Egy második Box használatához meg kell rendelni az APWM020 készletet, és elektrotechnikai szakemberrel be kell szereltetni.

A Connector Box egységek a mosógép mindkét csatlakozójához csatlakoztathatók, mivel mindössze a kódolás dönti el, hogy melyik Connector Boxról van szó. A mosógépben a csatlakozók párhuzamosan vannak összekötve, ezáltal a jelzések szempontjából azonosak.

A Connector Box egységeket a működéshez kódolni kell. A kódolással határozzuk meg a funkciót (lásd a Funkciók és az áramterhelés kódolása 1/2 táblázatokat). Kódolásra akkor is szükség van, ha egy Boxot használunk.

A Connector Box egységek a gyárilag a 8.3. csatlakozóba helyezett hídszállal vannak kódolva. Az 1. Connector Box funkcióihoz (lásd a Funkciók és áramterhelés kódolása 1. táblázatokat) az áthidalószálat a 8.1. csatlakozóba kell dugni. Az 2. Connector Box funkcióihoz (lásd a Funkciók és áramterhelés kódolása 2. táblázatokat) az áthidalószálat a 8.2. csatlakozóba kell dugni.

A gépvezérlés aktiválásával kapcsolatos további információkat a mosógép használati útmutatójában talál. (Üzemeltetői szint című fejezet)

Ez a használati és szerelési útmutató elsősorban az érmebedobó rendszerek csatlakoztatásához ad iránymutatást. Az érmebedobó rendszeren kívül más külső hardvereket a hardvergyártó felhatalmazott személyzetének kell csatlakoztatnia.

A Connector Box rögzítése előtt

- A Connector Box egységet szakszerűen fel kell csavarozni a kivitelezési helyen. A fali lyukak fúrásához szükséges méreteket lásd „🔧“ fejezet Ⓑ képen a használati és szerelési útmutató végén.
- Alternatívaként a Connector Box egység a mellékelt ragasztószalagokkal is rögzíthető a falhoz. Ügyeljen a következőkre:
  - a ragasztószalagok a hátsó és a középső oldalra vannak ragasztva. Lásd „🔧“ fejezet Ⓒ képen a használati és szerelési útmutató végén.
  - A fal felületének simának, szilárdnak, zsír- és pormentesnek kell lennie.
  - A falon nem lehet habtapéta, szerkezeti vakolat, és más, elégtelen tapadási tulajdonságú felület.
  - A maximális szerelési magasság nem haladhatja meg az 1,50 métert.

A Connector Box egységet nem szabad nyílt vízlelőhelyek, lefolyócsatornák vagy hasonló rendszerek fölé telepíteni.

⚠ A leeső Connector Box áramütést okozhat.
A Connector Box a rossz vagy hibás rögzítés következtében leeshet, ami elektromos áramütést okozhat.
A leesett Connector Box egységet többé már nem lehet használni. Cserélje ki a Connector Box egységet egy újra, vagy ellenőriztesse a meglévő készüléket a Miele vevőszolgálatával.

A telepítés elvégzése

Üzembe helyezési munkálatokat alapvetően csak elektrotechnikai szakember végezhet, az érvényes biztonsági rendelkezések figyelembevételével.

- Kapcsolja le a Miele Professional készüléket a hálózati feszültségről.
- Rögzítse a Connector Box egységet a mellékelt 4 csavarral (4 x 40) és tiplivel (S6) a falhoz. Lásd „🔧“ fejezet Ⓑ képen.
- Alternatívaként a mellékelt ragasztószalagokkal is rögzítheti a Connector Box egységet a falhoz. Lásd „🔧“ fejezet Ⓒ képen.
- Kösse össze a Connector Box egységet a Miele Professional készülékkel és a külső hardverrel (pl. az érmebedobó rendszerrel).

Más gyártók külső hardvereinek csatlakoztatásakor a vezeték minimális keresztmetszete legfeljebb 2,50 m kábelhossz mellett 1,0 mm^2 legyen.

A kábelvezető felszerelése

A külső hardver csatlakozóvezetékét kábelcsavarokkal és kábelvezetőkkel kell a Connector Box egységhez rögzíteni. Lásd „🔧“ fejezet Ⓐ képen a használati és szerelési útmutató végén.

- Vegye le a Connector Box fedelét (2 csavart kell kitekerni).
- Vegyen ki egy vagy több kábelvezetőt ①.
- Állítsa a Connector Box egységet a keskenyebb oldalára, hogy a lezárt csatlakozólyukak felfelé nézzenek.
- Egy csavarhúzóval nyomja ki a domború, kerek részt a csatlakozólyukból ②.

Tanács: Lyukassza át a csavarhúzóval több helyen a körbefutó hornyot.

- Dugja be a biztosító anyát ③.
- Csavarja rá a menetes részt ④.

Tanács: A külső hardver csatlakozókábelén húzza át a csavarsapkát ⑤.

- A menetes részen keresztül vezesse bele a csatlakozókábelt a Connector Box egységbe.
- Húzza meg a csavarsapkát.

A csavarsapka véd a nedvességtől és a portól.

- A kábelvezetővel ⑥ rögzítse a csatlakozókábelt.
- Vezesse bele a külső hardver szükséges csatlakozóit a Connector Box egységbe.
- Zárja le a Connector Box fedelét (tekerje be a 2 csavart).

Jelmagyarázat a kábelvezetőhöz a „🔧“ fejezet Ⓐ képen

① Kábelvezetők
② Csatlakozólyuk
③ Biztosító anya
④ Menetes rész
⑤ Csavarsapka
⑥ Kábelvezető csavarokkal

Programozás

A Connector Box telepítése után a megfelelő Miele Professional készüléken be kell állítani a külső funkciókat.

Kövesse a Miele Professional gép használati és felállítási útmutatójában szereplő utasításokat.

A külső hardverrel (érmebedobó rendszer, adagolóegység stb.) folytatott kommunikációhoz el kell végezni a beállításokat/programozást a Miele Professional készüléken.

A be- és kimenetek áramterhelése

A telepítés során ügyelni kell arra, hogy a csatlakoztatandó kiegészítő egységek áramfelvétele ne lépje túl az egyenként megengedett áramfelvételt és a nullvezeték teljes áramfelvételét.

A telepítés során ügyelni kell arra, hogy a mosógép/szárító és a Connector Box egység csatlakoztatásával, valamint a csatlakoztatott hardverrel együtt ne lépje túl az elektromos hálózat biztosítékának teljesítményét.

A be- és kimeneteket egyenként alakították ki az áramfelvételre, ahogy azt az „Áramterhelési táblázat“ ismerteti.

A 3.3. érintkező kapcsolóeleme úgy van kialakítva, hogy egy frekvenciaváltóval felszerelt ventilátort is kapcsolni lehessen.

Más gyártók külső hardvereinek csatlakoztatásakor a vezeték minimális keresztmetszete legfeljebb 2,50 m kábelhossz mellett 1,0 mm^2 legyen.

Kiürülés érzékelése

A kiürülés érzékelőjét a 4.1. és 4.2. szorítófoglalthoz kell csatlakoztatni. Ezek megfelelnek a védő kisfeszültségnek (III. védelmi osztály).

Be kell tartani a szenzor gyártójának utasításait.
A vezetékeket az összes többi vezetéktől elkülönítve kell elvezetni.

Érmebedobó rendszer telepítése

Érmebedobó készülék időalapú üzemmódban

Ennek a kapcsolási rajzát e használati és szerelési útmutató végén, a ◷ fejezetben („Timed operation“) találja.

- C4030, C4031, C4065, C4070, C4080
- C5003

Érmebedobó készülék program üzemmódban

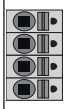
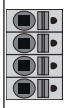
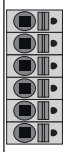
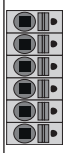
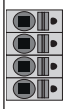
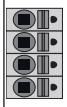
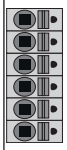
Ennek a kapcsolási rajzát e használati és szerelési útmutató végén, a ▶ fejezetben („Programme operation“) találja.

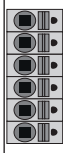
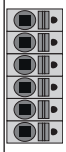
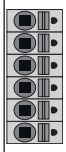
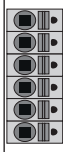
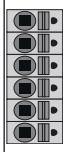
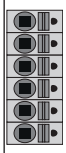
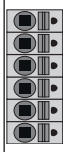
- C4030, C4031, C4060, C4065, C4070, C4080
- C5002, C5004

Jelmagyarázat

	A fizetőkészülék 7 pólusú csatlakozója
	Az érmebedobó készülék 7 pólusú csatlakozóját el lehet távolítani, hogy a vezetékeket közvetlenül a kapcsokon keresztül csatlakoztassák a Connector Box egységhez.
Connector Box	A Connector rögzítőhüvelye
C	A fizetőkészülék elektromos kapcsolásának vázlatos ábrázolása
	Idő üzemmód
	Program üzemmód
	PE kapocs szimbóluma (földelés)

Funkciók táblázata és áramterhelési táblázat, 1. kódolás

	Al-kalmazás	Kapcsok kiosztása	Jel	Jel-irány	Áram-ter-helés	Működés leírása
	Védővezető	PE	PE	—>		Védővezető
		PE	PE	—>		Védővezető
		PE	PE	—>		Védővezető
		PE	PE	—>		Védővezető
	Csúcster-helés	1.1	L'	—>	1,0 A	a Bekapcsolási üzenet kimenete
		1.2	N'	—>	1,0 A	b Fűtési követelmény kimente
		1.3	L'	<—		c Fűtés engedélyezésének bemenete
		1.4	N'	—>		d Nulla vezető
	Fizetőrendszer	2.1	L'	—>	0,5 A	A készülék üzemkész
		2.2	L'	—>	0,5 A	Programstátusz
		2.3	L'	<—		Programvásárlási impulzus
		2.4	N'	<—		Idővásárlási jelzés
		2.5	N'	—>		Tápfeszültség
		2.6	L'	—>		
	Adagolás	3.1	N'	—>	1,0 A	Külső feszültségellátás
		3.2	L'	—>	1,0 A	
		3.3	L'	—>	1,0 A	Adagolás 1
		3.4	N'	—>	1,0 A	
		3.5	L'	—>	1,0 A	Adagolás 2
		3.6	N'	—>	1,0 A	
	Adagolás	3.7	L'	—>	1,0 A	Adagolás 3
		3.8	N'	—>	1,0 A	
		3.9	L'	—>	1,0 A	Adagolás 4
		3.10	N'	—>	1,0 A	
	Adagolás	3.11	L'	—>	1,0 A	Adagolás 5
		3.12	N'	—>	1,0 A	
		3.13	L'	—>	1,0 A	Adagolás 6
		3.14	N'	—>	1,0 A	
	Programjelzés	4.1	L'	—>		Program kimenete
		4.2	N'	—>		
		4.3	L'	—>		Blokkoló kimenet
		4.4	N'	—>		
		4.5	Kapcsoási jel	<—		Program leállítás bemenete (Feszültségforrás)
		4.6	Referencia-potenciál 4.5-höz	<—		

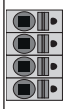
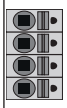
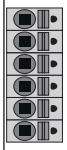
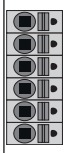
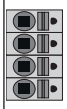
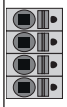
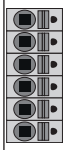
	Al-kalmazás	Kapcsok kiosztása	Jel	Jel-irány	Áram-ter-helés	Működés leírása
	Adagolás	5.1	L'	—>		Kiürülést jelző üzenet 1
		5.2	N'	<—		
		5.3	L'	—>		Kiürülést jelző üzenet 2
		5.4	N'	<—		
		5.5	L'	—>		Kiürülést jelző üzenet 3
		5.6	N'	<—		
	Adagolás	5.7	L'	—>		Kiürülést jelző üzenet 4
		5.8	N'	<—		
		5.9	L'	—>		Kiürülést jelző üzenet 5
		5.10	N'	<—		
		5.11	L'	—>		Kiürülést jelző üzenet 6
		5.12	N'	<—		
	Adagolás	6.1	+13V	—>		Átfolyási mennyiség Adag 1
		6.2	FM 1	<—		
		6.3	Föld	—>		
		6.4	+13V	<—		Átfolyási mennyiség Adag 2
		6.5	FM 2	—>		
		6.6	Föld	<—		
	Adagolás	6.7	+13V	—>		Átfolyási mennyiség Adag 3
		6.8	FM 3	<—		
		6.9	Föld	—>		
		6.10	+13V	<—		Átfolyási mennyiség Adag 4
		6.11	FM 4	—>		
		6.12	Föld	<—		
	Adagolás	6.13	+13V	—>		Átfolyási mennyiség Adag 5
		6.14	FM 5	<—		
		6.15	Föld	—>		
		6.16	+13V	<—		Átfolyási mennyiség Adag 6
		6.17	FM 6	—>		
		6.18	Föld	<—		
	Vízbevezetés	7.1	+13V	—>		Járókerék-számláló 1
		7.2	FRZ 1	<—		
		7.3	Föld	—>		
		7.4	+13V	<—		Járókerék-számláló 2
		7.5	FRZ 2	—>		
		7.6	Föld	<—		
	Vízbeve-zetés	7.7	+13V	—>		Járókerék-számláló 3
		7.8	FRZ 3	<—		
		7.9	Föld	—>		
	Kódolás	8.1	KÓD 1	<—		Híd 8.1-től 8.3 irányába
		8.2	KÓD 2	<—		nincs kiosztva
		8.3	Föld	—>		Híd 8.1-től 8.3 irányába

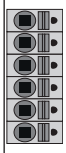
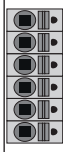
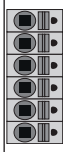
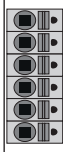
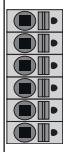
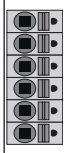
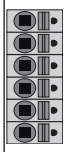
L' = kapcsol fázis, N' = kapcsolt nullvezeték

*: lásd a „Be- és kimenetek áramterhelése“ fejezetet

Az elektronika teljes átamterhelése: lásd a „Telepítés“ fejezetet.

Funkciók táblázata és áramterhelési táblázat, 2. kódolás

	Al-kalmazás	Kapcsok kiosztása	Jel	Jel-irány	Áram-ter-helés	Működés leírása
	Védővezető	PE	PE	—>		Védővezető
		PE	PE	—>		
		PE	PE	—>		
		PE	PE	—>		
	WRG	1.1	L'	—>	1,0 A	WRG szivattyú BE
		1.2	N'	—>	0,5 A	WRG Szelep
		1.3	L'	<—		nincs kiosztva
		1.4	N'	—>		nincs kiosztva
	WRG	2.1	L'	—>	0,5 A	WRG lefolyó
		2.2	L'	—>	0,5 A	WRG bevezetés
		2.3	L'	<—		nincs kiosztva
		2.4	N'	<—		WRG poz. zárva
		2.5	N'	—>		nincs kiosztva
		2.6	L'	—>		nincs kiosztva
	Adagolás	3.1	N'	—>	1,0 A	Külső feszültségellátás
		3.2	L'	—>	1,0 A	
		3.3	L'	—>	1,0 A	Adagolás 7
		3.4	N'	—>	1,0 A	
		3.5	L'	—>	1,0 A	Adagolás 8
		3.6	N'	—>	1,0 A	
	Adagolás	3.7	L'	—>	1,0 A	Adagolás 9
		3.8	N'	—>	1,0 A	
		3.9	L'	—>	1,0 A	Adagolás 10
		3.10	N'	—>	1,0 A	
	Adagolás	3.11	L'	—>	1,0 A	Adagolás 11
		3.12	N'	—>	1,0 A	
		3.13	L'	—>	1,0 A	Adagolás 12
		3.14	N'	—>	1,0 A	
	Programjelzés	4.1	L'	—>		nincs kiosztva
		4.2	N'	—>		
		4.3	L'	—>		nincs kiosztva
		4.4	N'	—>		
		4.5	Kapcsoási jel	<—		nincs kiosztva
		4.6	Referencia-potenciál 4.5-höz	<—		

	Al-kalmazás	Kapcsok kiosztása	Jel	Jel-irány	Áram-ter-helés	Működés leírása
	Adagolás	5.1	L'	—>		Kiürülést jelző üzenet 7
		5.2	N'	<—		
		5.3	L'	—>		Kiürülést jelző üzenet 8
		5.4	N'	<—		
		5.5	L'	—>		Kiürülést jelző üzenet 9
		5.6	N'	<—		
	Adagolás	5.7	L'	—>		Kiürülést jelző üzenet 10
		5.8	N'	<—		
		5.9	L'	—>		Kiürülést jelző üzenet 11
		5.10	N'	<—		
		5.11	L'	—>		Kiürülést jelző üzenet 12
		5.12	N'	<—		
	Adagolás	6.1	+13V	—>		Átfolyási mennyiség Adag 7
		6.2	FM 1	<—		
		6.3	Föld	—>		
		6.4	+13V	<—		Átfolyási mennyiség Adag 8
		6.5	FM 2	—>		
		6.6	Föld	<—		
	Adagolás	6.7	+13V	—>		Átfolyási mennyiség Adag 9
		6.8	FM 3	<—		
		6.9	Föld	—>		
		6.10	+13V	<—		Átfolyási mennyiség Adag 10
		6.11	FM 4	—>		
		6.12	Föld	<—		
	Adagolás	6.13	+13V	—>		Átfolyási mennyiség Adag 11
		6.14	FM 5	<—		
		6.15	Föld	—>		
		6.16	+13V	<—		Átfolyási mennyiség Adag 12
		6.17	FM 6	—>		
		6.18	Föld	<—		
	Vízbevezetés	7.1	+13V	—>		Járókerék-számláló 4
		7.2	FRZ 1	<—		
		7.3	Föld	—>		
		7.4	+13V	<—		Járókerék-számláló 5
		7.5	FRZ 2	—>		
		7.6	Föld	<—		
	Vízbeve-zetés	7.7	+13V	—>		Járókerék-számláló 6
		7.8	FRZ 3	<—		
		7.9	Föld	—>		
	Kódolás	8.1	Kód 1	<—		nincs kiosztva
		8.2	Kód 2	<—		Híd 8.2-től 8.3 irányába
		8.3	Föld	—>		Híd 8.2-től 8.3 irányába

L' = kapcsol fázis, N' = kapcsolt nullvezeték

*: lásd a „Be- és kimenetek áramterhelése“ fejezetet

Az elektronika teljes átamterhelése: lásd a „Telepítés“ fejezetet.

Elektromos csatlakoztatás

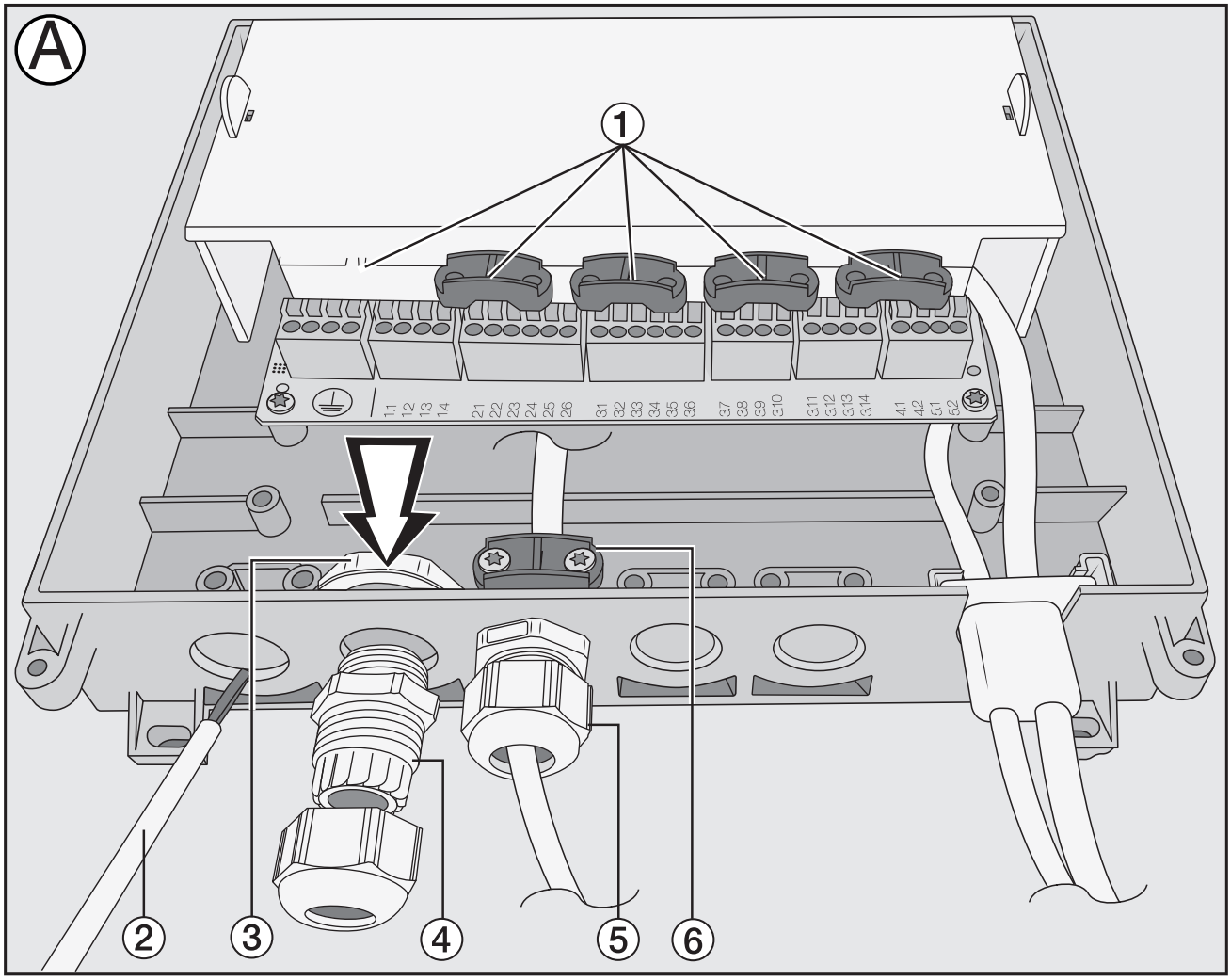
A Connector Box áramellátását a Miele Professional készülék biztosítja hálózati feszültséggel.

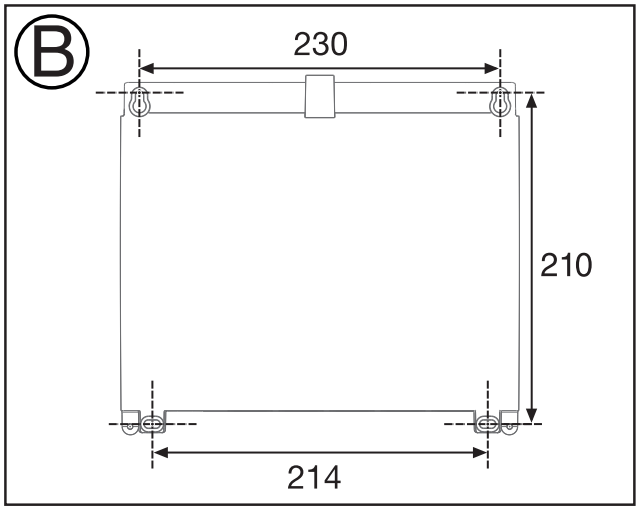
A Connector Box egységnek nincs külön *Be/Ki* kapcsolója.

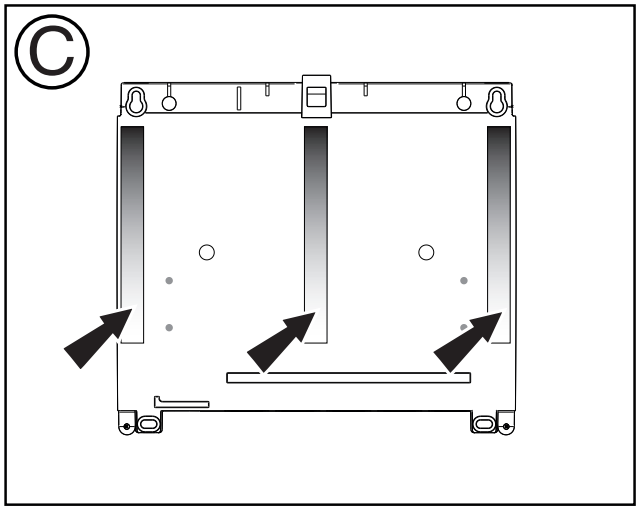
⚠ A Connector Box sérülése helytelen csatlakoztatás miatt.
A Connector Box a túláram miatt megsérülhet.
A Connector Box egységet idegen feszültséggel nem szabad bekapcsolni.

Műszaki adatok

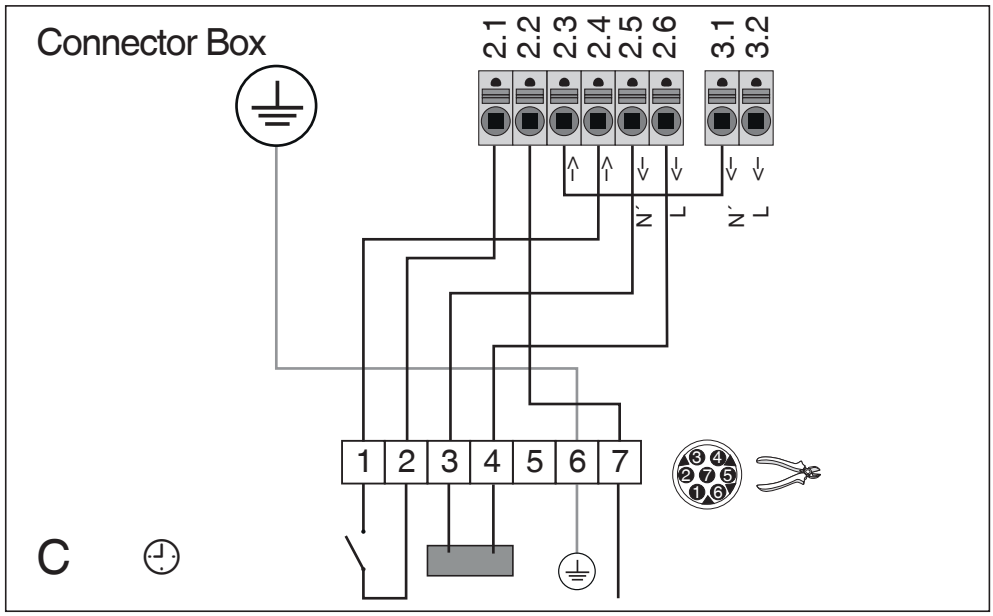
Feszültség	200 V–240 V
Frekvencia	50 Hz/60 Hz
Hőmérséklet-tartomány üzem közben	2 °C–35 °C


A
1
1.1 1.2 1.3 1.4
2.1 2.2 2.3 2.4 2.5 2.6
3.1 3.2 3.3 3.4 3.5 3.6
3.7 3.8 3.9 3.10
3.11 3.12 3.13 3.14
4.1 4.2
5.1 5.2
2
3
4
5
6

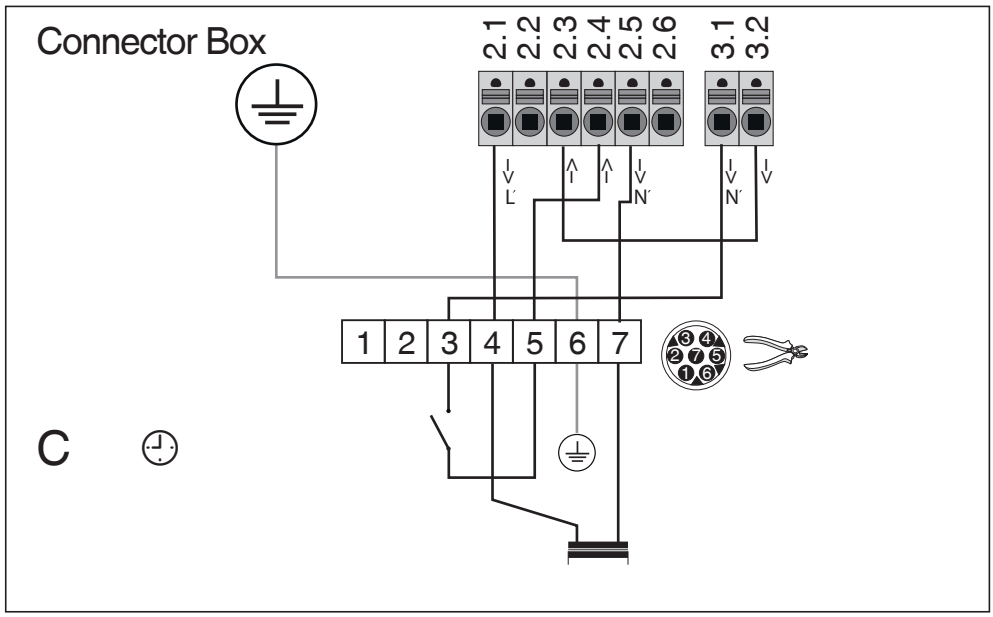

B
230
210
214


C

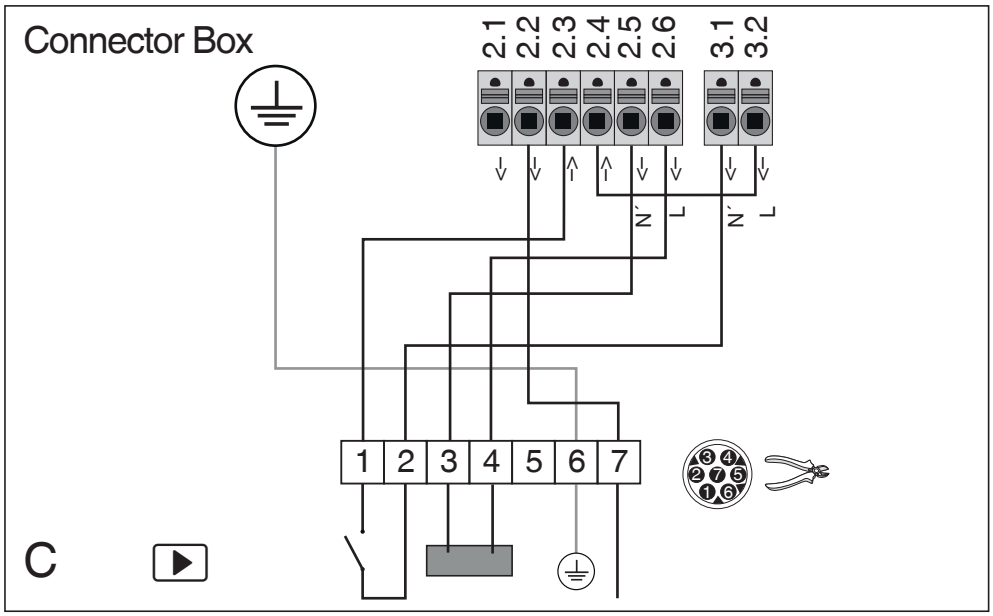
C4030, C4031, C4065, C4070, C4080



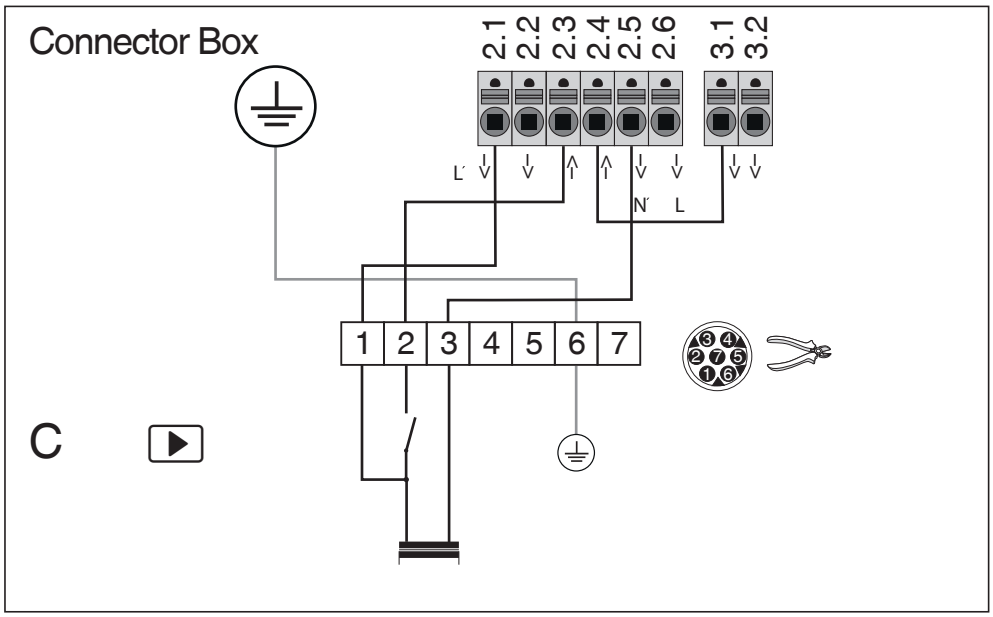
C5003



C4030, C4031, C4065, C4070, C4080



C4060, C5002, C5004



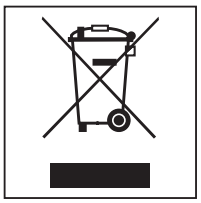
Nakliye ambalajının elden çıkarılması

Ambalaj Connector-Box'u nakliye hasarlarına karşı korur. Ambalaj malzemeleri tasfiyeye yönelik olarak çevre dostu malzemelerden seçilmiştir ve bu sebeple geri dönüştürülmesi mümkündür.

Ambalajın malzeme döngüsüne geri kazandırılması hammadde tasarrufu sağlar ve atık oluşumunu azaltır. Bayiniz ambalajı geri alabilir.

Eski Cihazın Elden Çıkarılması

Elektrikli ve elektronik cihazlar birçok değerli materyal içerir. Bu tür cihazlar aynı zamanda işleyişleri ve güvenlikleri için gerekli belli maddeler, karışımlar ve bileşenler de içerir. Bunlar evsel atıklar içinde ve uygunsuz işlem görmeleri halinde insan sağlığına ve çevreye zarar verebilirler. Eski cihazınızı bu sebeple hiçbir suretle evsel atıklarla birlikte atmayınız.



Bunun yerine varsa belediyeler, bayiler veya Miele'de bulunan elektrikli ve elektronik cihazların teslimi ve değerlendirilmesine yönelik resmi toplama ve geri alma merkezlerinden yararlanınız. Elden çıkarılacak eski cihaz üzerindeki olası kişisel verilerin silinmesinden yasalar uyarınca siz sorumlusunuz. Lütfen eski cihazın evden çıkarılıncaya kadar çocukların erişemeyeceği güvenli bir yerde muhafaza edilmesini sağlayınız.

Bu Connector-Box öngörülen güvenlik şartlarına uygundur. Bununla birlikte uygunsuz bir kullanım bedensel yaralanmalara ve mal zararına sebep olabilir.

Önce Connector-Box Kullanım ve Montaj Kılavuzunu okuyunuz. Bu kılavuz güvenlik, Connector-Box kullanımı ve bakımına yönelik önemli bilgiler içermektedir. Bu bilgiler sayesinde kendinizi korumuş olur ve cihazınıza gelebilecek zararların önüne geçersiniz.

Bu kullanım ve montaj kılavuzunu saklayınız ve cihazın sizden sonraki sahibine veriniz.

Amacına uygun kullanım

▶ Connector-Box sadece bir Miele Professional cihazı ile harici bir donanım, örneğin azami yük kapatması, ödeme ünitesi, ek fan, atık hava klapesi veya dozaj pompaları ile bağlantı oluşturmaya yöneliktir. Başka kullanım amaçlarının tehlikeli olması mümkündür.
Miele, amacına aykırı veya hatalı kullanım sonucu ortaya çıkan zararların sorumluluğunu üstlenmez.

▶ Connector Box sadece fabrikada uygun bağlantı ile donatılmış Miele Professional cihazları ile kullanıma yöneliktir.

Teknik güvenlik

▶ Connector-Box sadece doğru kullanım şartlarını sağlayacak olan elektrik teknisyenleri tarafından monte edilmelidir.

▶ Montajdan önce Connector-Box'ta görünür harici hasarlar olup olmadığını kontrol ediniz. Hasarlı bir Connector-Box takılmamalı ve işletime alınmamalıdır.

▶ Connector-Box bir arıza veya hasar durumunda onarılmamalıdır. Bu gibi durumlarda Connector-Box'u sadece yenisiyle değiştiriniz.

▶ Connector-Box'un elektrik bağlantısı sadece Miele Professional cihazı, Kullanım ve Kurulum Talimatında belirtilenlere uygun şekilde elektrik şebekesinden ayrıldığında kesilir.

▶ Miele Professional cihazının Connector-Box bağlantı kabloları ezilmemelidir.

▶ Connector-Box duvara veya özel bir makine tespit elemanı (sonradan satın alınabilen aksesuar) ile makineye monte edilmelidir.

▶ Duvara monte edildikten sonra Connector-Box'a servis amacıyla erişim mümkün olmalıdır.

▶ Connector-Box montajı ve bağlantı kablolarının döşenmesi doğru bir şekilde yapılmalıdır.

▶ Cihazla birlikte verilen, harici donanıma bağlantıya yönelik kontra somunlu kablo rakorları ve kablo sünmezleri kullanılmalıdır.

Çalışma şekli

Connector-Box ile Miele'nin ve diğer tedarikçilerin harici donanımları Miele Professional cihazına bağlanabilir. Harici donanımlar örneğin ödeme sistemleri, dozaj sistemleri, azami yük sistemleri, basınç sensörleri, harici atık hava klapeleri vb. olabilir.

Connector-Box'ların fonksiyonları:

Connector-Box kodlaması 1	Connector-Box kodlaması 2
- Dozaj 1–6	- Dozaj 7–12
- Boş mesajı 1–6	- Boş mesajı 7–12
- Debi miktarı 1–3	- Debi miktarı 4–6
- Azami yük kapatması	- Su geri kazanımı
- Ödeme sistemi	- Program sinyalleri
- Program sinyalleri	

Bir çamaşır makinesine 2 adet Box bağlanabilir. Çamaşır makinesi, fabrikada bir Connector-Box için bir adet bağlantı yeri ile donatılmıştır. İkinci bir Connector-Box'un kullanılabilmesi için APWM020 Kiti sipariş edilmeli ve bir elektrik teknisyeni tarafından monte edilmelidir.

Connector-Box'lar çamaşır makinesinin her iki bağlantısına bağlanabilir; yapılan kodlama, hangi Connector-Box'un söz konusu olduğuna karar verir. Çamaşır makinesindeki bağlantılar paraleldir ve dolayısıyla sinyalleşme açısından özdeştir.

Connector-Box'lar işletim için kodlanmalıdır. Kodlama ile fonksiyon belirlenir (bkz. Tablolar, Fonksiyonlar ve Akım Yükü Kodlaması 1/2). Kodlama, ayrıca sadece tek bir Box kullanıldığında da gereklidir.

Connector-Box'lar, fabrikada 8.3 no.lu bağlantıya takılmış tel köprüler ile kodlanır. Connector-Box 1'in fonksiyonları (bkz. Tablolar, Fonksiyonlar ve Akım Yükü Kodlaması 1) için tel köprü 8.1 no.lu bağlantıya takılır. Connector-Box 2'nin fonksiyonları (bkz. Tablolar, Fonksiyonlar ve Akım Yükü Kodlaması 2) için tel köprü 8.2 no.lu bağlantıya takılır.

Makine kumandasının etkinleştirilmesi ile ilgili ayrıntılı bilgiler çamaşır makinesinin kullanım kılavuzunda sunulmaktadır. (İşletmeci seviyesi bölümü)

Bu Kullanım ve Montaj Kılavuzu öncelikli olarak ödeme ünitelerinin bağlantısına yönelik bir kılavuzdur. Ödeme ünitesinden çıkan diğer harici donanım bağlantıları, donanım üreticisinin yetkili kişileri tarafından gerçekleştirilmelidir.

Connector-Box tespit edilmeden önce

- Connector-Box, kurulum yerinde usulüne uygun şekilde vidalanmalıdır. Duvarda açılacak deliklerin ölçüleri için bkz. bu kullanım ve montaj kılavuzunun sonundaki Bölüm “🔧”, Resim Ⓑ.
- Alternatif olarak Connector-Box birlikte verilen yapışkanlı şeritler ile duvara tespit edilebilir. Bunun için dikkate alınması gereken hususlar:
  - Yapışkanlı şeritler, dış taraftan ve ortalanarak arka yüze yapıştırılır. Bkz. bu kullanım ve montaj kılavuzunun sonundaki Bölüm “🔧”, Resim Ⓒ.
  - Duvarın yüzeyi pürüzsüz, sağlam, yağdan ve tozdan arındırılmış olmalıdır.
  - Duvarda kabartmalı duvar kağıtları, dokulu sıva veya yetersiz tutma özelliğine sahip başka kaplamalar olmamalıdır.
  - Azami montaj yüksekliği 1,50 m'yi aşmamalıdır.

Connector-Box'un üstü açık su, boşaltma kanalları veya benzer sistemlerin üzerine monte edilmesine müsaade edilmez.

⚠ Aşağı düşen Connector-Box nedeniyle elektrik çarpma tehlikesi.
Connector-Box, yanlış veya yetersiz tespitleme nedeniyle aşağı düşebilir ve bu durum elektrik çarpmasına yol açabilir.
Aşağı düşmüş bir Connector-Box artık kullanılmamalıdır. Connector-Box'u yenisi ile değiştiriniz veya Miele yetkili servisine kontrol ettiriniz.

Kurulumun gerçekleştirilmesi

Onarım çalışmaları esas olarak sadece bir elektrik teknisyeni tarafından geçerli güvenlik şartları dikkate alınarak gerçekleştirilmelidir.

- Miele Professional cihazının elektrik şebekesi bağlantısını kesiniz.
- Connector-Box'u birlikte verilen 4 vida (4 x 40) ve dübellerle (S6) duvara tespit ediniz. Bkz. Bölüm “🔧”, Resim Ⓑ.
- Alternatif olarak Connector-Box'u birlikte verilen yapışkanlı şeritler ile duvara sabitleyebilirsiniz. Bkz. Bölüm “🔧”, Resim Ⓒ.
- Connector-Box'tan Miele Professional cihazına ve harici donanıma (öreğin ödeme sistemi) bağlantıları gerçekleştiriniz.

Başka üreticilerin harici donanımlarının bağlantısı için en fazla 2,50 metrelik bir kablo uzunluğunda, 1,0 mm^2 asgari kesit boyutunun altına inilmemelidir.

Kablo sünmezi montajı

Harici donanımın bağlantı kabloları kablo rakorları ve kablo sünmezleri ile Connector-Box'a tespit edilmelidir. Bkz. bu kullanım ve montaj kılavuzunun sonundaki Bölüm “🔧”, Resim Ⓐ.

- Connector-Box'un kapağını çıkarınız (2 vidayı sökünüz).
- Bir veya daha fazla kablo sünmezini ① çıkarınız.
- Connector-Box'u dar yanı üzerine, kapalı bağlantı delikleri yukarıda olacak şekilde yerleştiriniz.
- Bir tornavida ile bağlantı deliğindeki ② yuvarlak parçayı dışarı bastırınız.

Faydalı bilgi: Çevresindeki oyuğu birden fazla yerden tornavida ile deliniz.

- Kontra somunu ③ takınız.
- Vidalı parçayı ④ üstüne vidalayınız.

Faydalı bilgi: Vidalı kapağı ⑤ harici donanımın bağlantı kablosuna geçiriniz.

- Bağlantı kablosunu vidalı parça içinden geçirerek Connector-Box'a yönlendiriniz.
- Vidalı kapağı sıkınız.

Vidalı kapak neme ve toza karşı koruma sunar.

- Bağlantı kablosunu kablo sünmezi ⑥ ile tespit ediniz.
- Connector-Box'ta harici donanım için gerekli bağlantıları gerçekleştiriniz.
- Connector-Box'un kapağını kapatınız (2 vidayı sıkınız).

Kablo sünmezi açıklaması için bkz. Bölüm “🔧“, Resim Ⓐ

① Kablo sünmezleri
② Bağlantı deliği
③ Kontra somun
④ Vidalı parça
⑤ Vidalı kapak
⑥ Vidalarla birlikte kablo sünmezi

Programlama

Connector-Box kurulduktan sonra ilgili Miele Professional cihazında harici fonksiyonların ayarları gerçekleştirilmelidir.

Miele Professional cihazının Kullanım ve Kurulum Talimatındaki talimatları uygulayınız.

Harici donanım (ödeme ünitesi, dozaj ünitesi ...) ile iletişim için Miele Professional cihazında ayarlar/programlama gerçekleştirilmesi gerekir.

Giriş ve çıkışların akım taşıma kapasitesi

Kurulum sırasında, bağlanacak ek bileşenlerin güç tüketiminin nötr iletkendeki toplam tüketimi ve izin verilen münferit akımları aşmamasına dikkat edilmelidir.

Kurulum sırasında çamaşır makinesinin/kurutma makinesinin Connector-Box ve bağlı donanım kombinasyonu ile bağlanması dolayısıyla elektrik güç kaynağının sigorta akımının aşılmamasına dikkat edilmelidir.

Giriş ve çıkışlar “Akım taşıma kapasitesi tablosu” kısmında açıklanan akımlar için tasarlanmıştır.

3.3 kontağının devre elemanı, frekans dönüştürücülü bir fan da çalıştırılabilecek şekilde tasarlanmıştır.

Başka üreticilerin harici donanımlarının bağlantısı için en fazla 2,50 metrelik bir kablo uzunluğunda, 1,0 mm^2 asgari kesit boyutunun altına inilmemelidir.

Boş durum algılaması

4.1 ve 4.2 terminallerine boş durum algılama donanımı bağlanır. Bunlar çok düşük güvenlik gerilimine karşı gelirler (Koruma sınıfı III).

Sensör üreticisinin spesifikasyonları dikkate alınmalıdır.
Kabloların tüm diğer kablolardan ayrı olarak döşenmesi gerekir.

Ödeme sistemi kurulumu

Süreli işletimde ödeme ünitesi

Buna ilişkin bağlantı şemasını bu Kullanım ve Montaj Talimatının (“Süreli işletim”) bölümünde bulabilirsiniz.

- C4030, C4031, C4065, C4070, C4080
- C5003

Programlı işletimde ödeme ünitesi

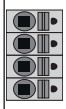
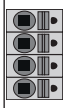
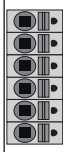
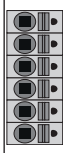
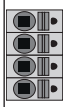
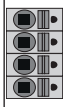
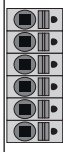
Buna ilişkin bağlantı şemasını bu Kullanım ve Montaj Talimatının (“Programlı işletim”) bölümünde bulabilirsiniz.

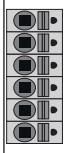
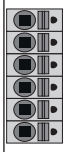
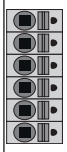
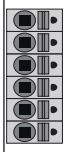
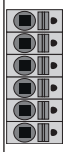
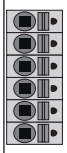
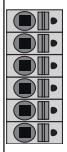
- C4030, C4031, C4060, C4065, C4070, C4080
- C5002, C5004

Açıklama

	Ödeme ünitesinin 7 kutuplu konnektörü
	Ödeme ünitesinin 7 kutuplu konnektörü, kabloları doğrudan Connector-Box terminalleri üzerinden bağlamak üzere çıkarılabilir.
Connector-Box	Connector-Box terminal rakorları
C	Ödeme ünitesinde elektrik bağlantılarının şematik gösterimi
	Süreli işletim
	Programlı işletim
	PE terminali (topraklama) sembolü

Fonksiyonlar ve Akım Yükü Kodlaması 1 tablosu

	Uygulama	Terminal düzeni	Sinyal	Sinyal yönü	Akım taşıma kapasitesi	Fonksiyon açıklaması
	Koruyucu iletken	PE	PE	—>		Koruyucu iletken
		PE	PE	—>		Koruyucu iletken
		PE	PE	—>		Koruyucu iletken
		PE	PE	—>		Koruyucu iletken
	Azami yük	1.1	L'	—>	1,0 A	a Açma bildirimi çıkışı
		1.2	N'	—>	1,0 A	b Isıtma talebi çıkışı
		1.3	L'	<—		c Isıtma onayı girişi
		1.4	N'	—>		d Nötr iletken
	Ödeme sistemi	2.1	L'	—>	0,5 A	Cihaz işletime hazır
		2.2	L'	—>	0,5 A	Program durumu
		2.3	L'	<—		Program satın alma darbesi
		2.4	N'	<—		Süre satın alma sinyali
		2.5	N'	—>		Gerilim beslemesi
		2.6	L'	—>		
	Dozaj	3.1	N'	—>	1,0 A	Gerilim beslemesi, harici
		3.2	L'	—>	1,0 A	
		3.3	L'	—>	1,0 A	Dozaj 1
		3.4	N'	—>	1,0 A	
		3.5	L'	—>	1,0 A	Dozaj 2
		3.6	N'	—>	1,0 A	
	Dozaj	3.7	L'	—>	1,0 A	Dozaj 3
		3.8	N'	—>	1,0 A	
		3.9	L'	—>	1,0 A	Dozaj 4
		3.10	N'	—>	1,0 A	
	Dozaj	3.11	L'	—>	1,0 A	Dozaj 5
		3.12	N'	—>	1,0 A	
		3.13	L'	—>	1,0 A	Dozaj 6
		3.14	N'	—>	1,0 A	
	Program sinyalleri	4.1	L'	—>		Program durdurma çıkışı
		4.2	N'	—>		
		4.3	L'	—>		Engelleyici çıkış
		4.4	N'	—>		
		4.5	Anahtarlama sinyali	<—		Program durdurma girişi (Gerilim kaynağı)
		4.6	4.5 için referans potansiyeli	<—		

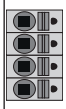
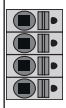
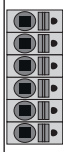
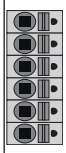
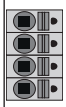
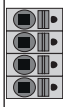
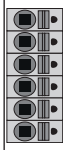
	Uy-gulama	Ter-minal düzeni	Sinyal	Sinyal yönü	Akım taşıma kapasitesi	Fonksiyon açıklaması
	Dozaj	5.1	L'	—>		Boş mesajı 1
		5.2	N'	<—		
		5.3	L'	—>		Boş mesajı 2
		5.4	N'	<—		
		5.5	L'	—>		Boş mesajı 3
		5.6	N'	<—		
	Dozaj	5.7	L'	—>		Boş mesajı 4
		5.8	N'	<—		
		5.9	L'	—>		Boş mesajı 5
		5.10	N'	<—		
		5.11	L'	—>		Boş mesajı 6
		5.12	N'	<—		
	Dozaj	6.1	+13 V	—>		Debi miktarı Dos 1
		6.2	FM 1	<—		
		6.3	GND	—>		
		6.4	+13 V	<—		Debi miktarı Dos 2
		6.5	FM 2	—>		
		6.6	GND	<—		
	Dozaj	6.7	+13 V	—>		Debi miktarı Dos 3
		6.8	FM 3	<—		
		6.9	GND	—>		
		6.10	+13 V	<—		Debi miktarı Dos 4
		6.11	FM 4	—>		
		6.12	GND	<—		
	Dozaj	6.13	+13 V	—>		Debi miktarı Dos 5
		6.14	FM 5	<—		
		6.15	GND	—>		
		6.16	+13 V	<—		Debi miktarı Dos 6
		6.17	FM 6	—>		
		6.18	GND	<—		
	Su girişi	7.1	+13 V	—>		Pervane sayacı 1
		7.2	FRZ 1	<—		
		7.3	GND	—>		
		7.4	+13 V	<—		Pervane sayacı 2
		7.5	FRZ 2	—>		
		7.6	GND	<—		
	Su girişi	7.7	+13 V	—>		Pervane sayacı 3
		7.8	FRZ 3	<—		
		7.9	GND	—>		
	Kodla-ma	8.1	COD 1	<—		8.1'den 8.3'e köprü
		8.2	COD 2	<—		Kullanılmıyor
		8.3	GND	—>		8.1'den 8.3'e köprü

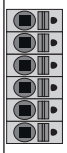
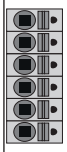
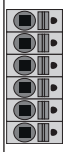
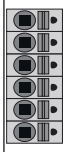
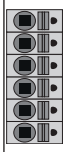
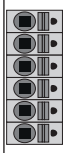
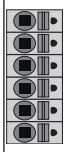
L' = Anahtarlanmış faz, N' = Anahtarlanmış nötr iletken

* bkz. “Giriş ve çıkışların akım taşıma kapasitesi” bölümü

Elektronik donanımın toplam akım yükü: bkz. “Kurulum” bölümü.

Fonksiyonlar ve Akım Yükü Kodlaması 2 tablosu

	Uygulama	Terminal düzeni	Sinyal	Sinyal yönü	Akım taşıma kapasitesi	Fonksiyon açıklaması
	Koruyucu iletken	PE	PE	—>		Koruyucu iletken
		PE	PE	—>		
		PE	PE	—>		
		PE	PE	—>		
	WRG	1.1	L'	—>	1,0 A	WRG Pompa AÇIK
		1.2	N'	—>	0,5 A	WRG Valf
		1.3	L'	<—		Kullanılmıyor
		1.4	N'	—>		Kullanılmıyor
	WRG	2.1	L'	—>	0,5 A	WRG Tahliye hattı
		2.2	L'	—>	0,5 A	WRG Giriş hattı
		2.3	L'	<—		Kullanılmıyor
		2.4	N'	<—		WRG Poz. kapalı
		2.5	N'	—>		Kullanılmıyor
		2.6	L'	—>		Kullanılmıyor
	Dozaj	3.1	N'	—>	1,0 A	Gerilim beslemesi, harici
		3.2	L'	—>	1,0 A	
		3.3	L'	—>	1,0 A	Dozaj 7
		3.4	N'	—>	1,0 A	
		3.5	L'	—>	1,0 A	Dozaj 8
		3.6	N'	—>	1,0 A	
	Dozaj	3.7	L'	—>	1,0 A	Dozaj 9
		3.8	N'	—>	1,0 A	
		3.9	L'	—>	1,0 A	Dozaj 10
		3.10	N'	—>	1,0 A	
	Dozaj	3.11	L'	—>	1,0 A	Dozaj 11
		3.12	N'	—>	1,0 A	
		3.13	L'	—>	1,0 A	Dozaj 12
		3.14	N'	—>	1,0 A	
	Program sinyalleri	4.1	L'	—>		Kullanılmıyor
		4.2	N'	—>		
		4.3	L'	—>		Kullanılmıyor
		4.4	N'	—>		
		4.5	Anahtarlama sinyali	<—		Kullanılmıyor
		4.6	4.5 için referans potansiyeli	<—		

	Uy-gulama	Ter-minal düzeni	Sinyal	Sinyal yönü	Akım taşıma kapasitesi	Fonksiyon açıklaması
	Dozaj	5.1	L'	—>		Boş mesajı 7
		5.2	N'	<—		
		5.3	L'	—>		Boş mesajı 8
		5.4	N'	<—		
		5.5	L'	—>		Boş mesajı 9
		5.6	N'	<—		
	Dozaj	5.7	L'	—>		Boş mesajı 10
		5.8	N'	<—		
		5.9	L'	—>		Boş mesajı 11
		5.10	N'	<—		
		5.11	L'	—>		Boş mesajı 12
		5.12	N'	<—		
	Dozaj	6.1	+13 V	—>		Debi miktarı Dos 7
		6.2	FM 1	<—		
		6.3	GND	—>		
		6.4	+13 V	<—		Debi miktarı Dos 8
		6.5	FM 2	—>		
		6.6	GND	<—		
	Dozaj	6.7	+13 V	—>		Debi miktarı Dos 9
		6.8	FM 3	<—		
		6.9	GND	—>		
		6.10	+13 V	<—		Debi miktarı Dos 10
		6.11	FM 4	—>		
		6.12	GND	<—		
	Dozaj	6.13	+13 V	—>		Debi miktarı Dos 11
		6.14	FM 5	<—		
		6.15	GND	—>		
		6.16	+13 V	<—		Debi miktarı Dos 12
		6.17	FM 6	—>		
		6.18	GND	<—		
	Su girişi	7.1	+13 V	—>		Pervane sayacı 4
		7.2	FRZ 1	<—		
		7.3	GND	—>		
		7.4	+13 V	<—		Pervane sayacı 5
		7.5	FRZ 2	—>		
		7.6	GND	<—		
	Su girişi	7.7	+13 V	—>		Pervane sayacı 6
		7.8	FRZ 3	<—		
		7.9	GND	—>		
	Kodla-ma	8.1	Kod 1	<—		Kullanılmıyor
		8.2	Kod 2	<—		8.2'den 8.3'e köprü
		8.3	GND	—>		8.2'den 8.3'e köprü

L' = Anahtarlanmış faz, N' = Anahtarlanmış nötr iletken

* bkz. “Giriş ve çıkışların akım taşıma kapasitesi” bölümü

Elektronik donanımın toplam akım yükü: bkz. “Kurulum” bölümü.

Elektrik bağlantısı

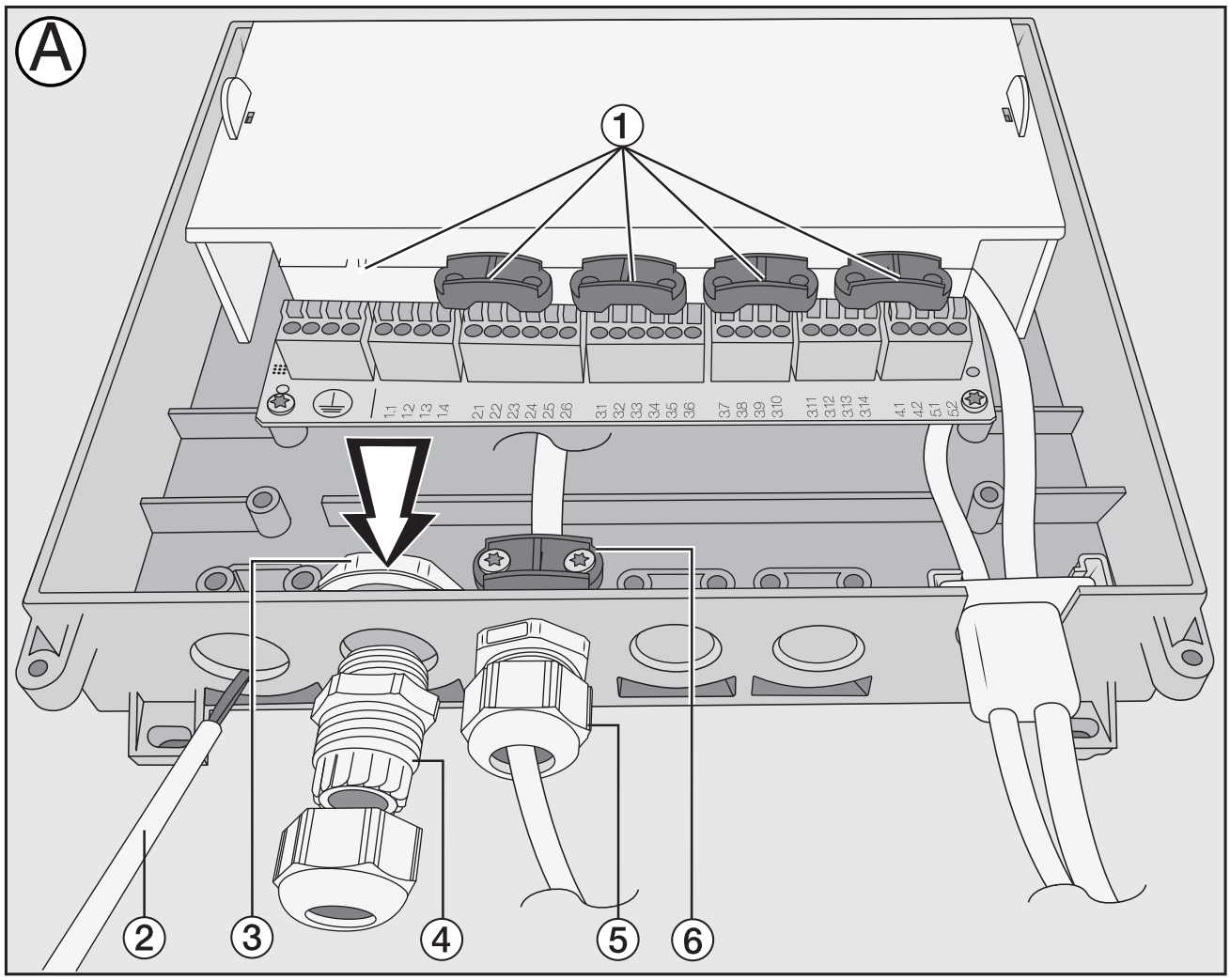
Connector-Box'un elektrik beslemesi Miele Professional makinesi üzerinden gerçekleşir.

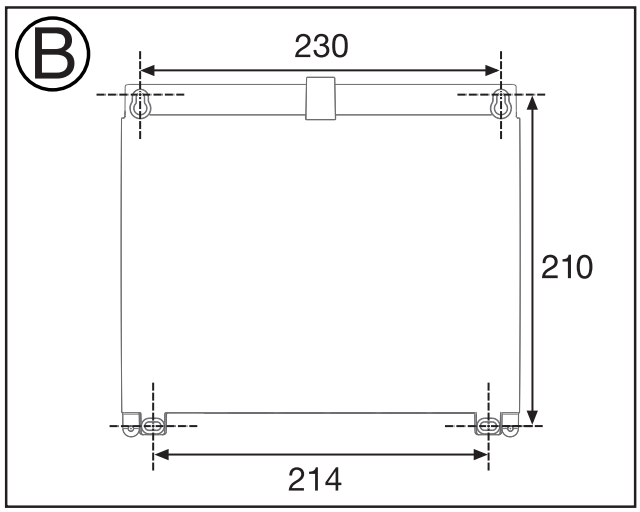
Connector-Box ayrı bir *Açma/Kapama* anahtarına sahip değildir.

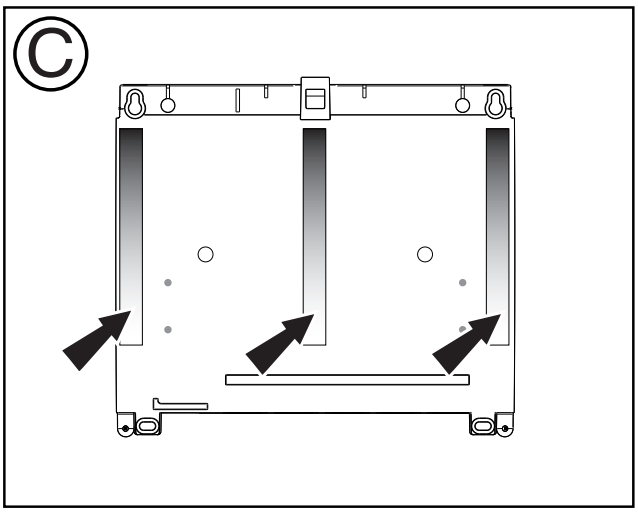
⚠ Hatalı bağlantı sonucu Connector-Box'ta hasar.
Connector-Box aşırı gerilim sonucu hasar görebilir.
Connector-Box'un harici güç kaynağı ile çalıştırılmasına izin verilmez.

Teknik veriler

Gerilim	200 V–240 V
Frekans	50 Hz/60 Hz
işletim için sıcaklık aralığı	2 °C – 35 °C

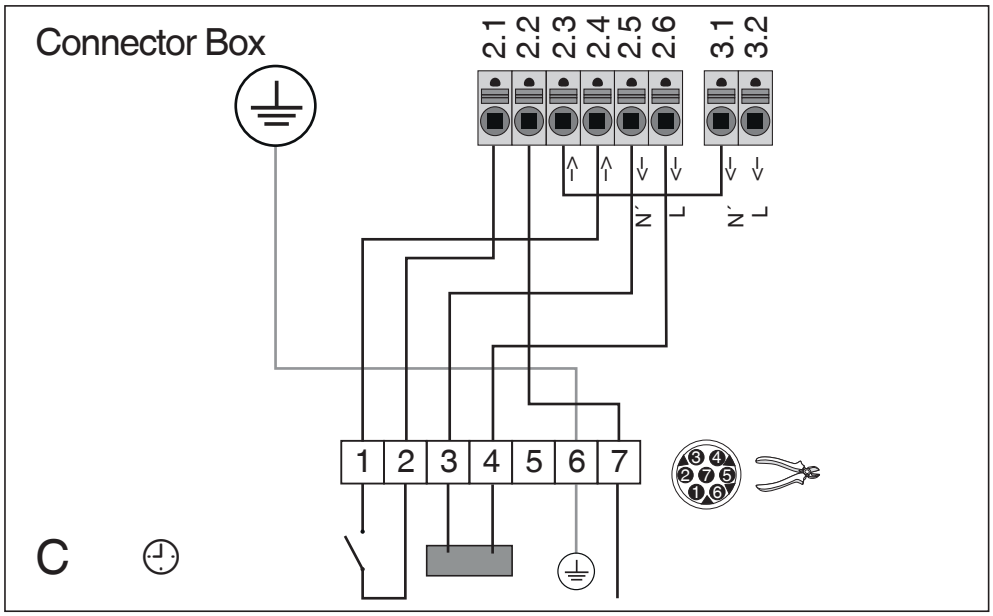

A
1
2
3
4
5
6


B
230
210
214

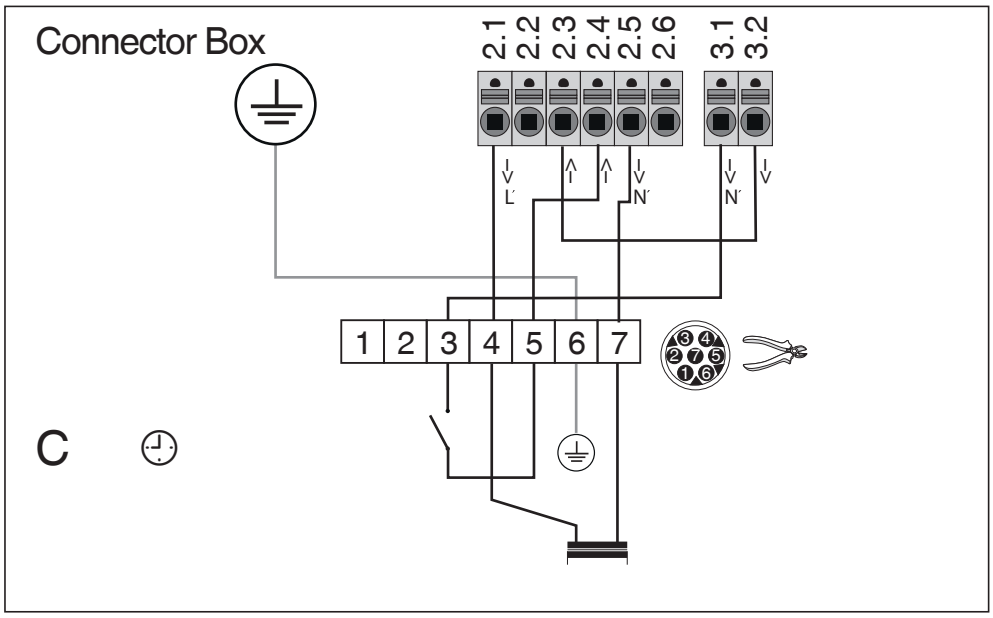

C

(Timed operation)

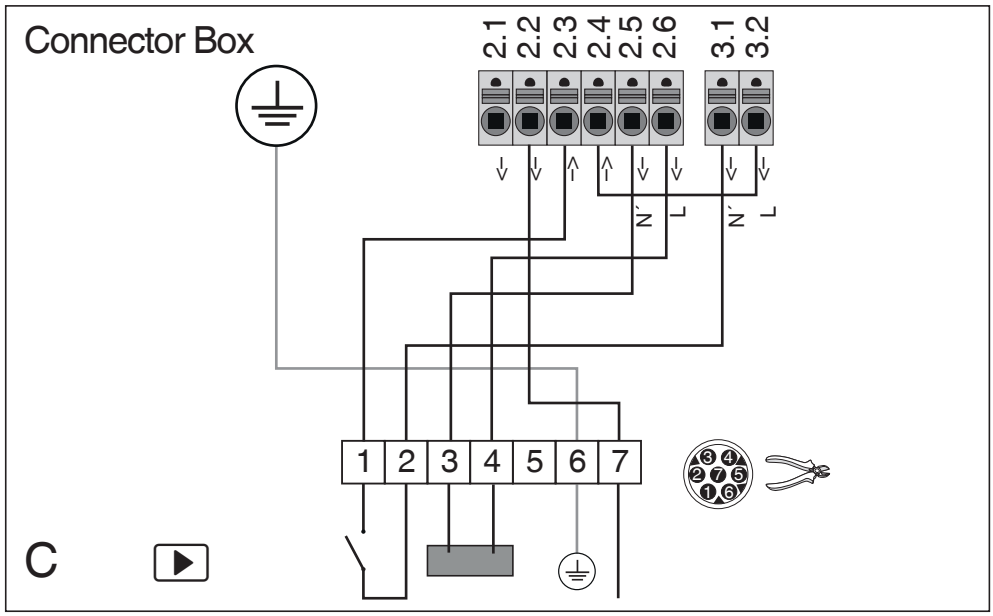
C4030, C4031, C4065, C4070, C4080



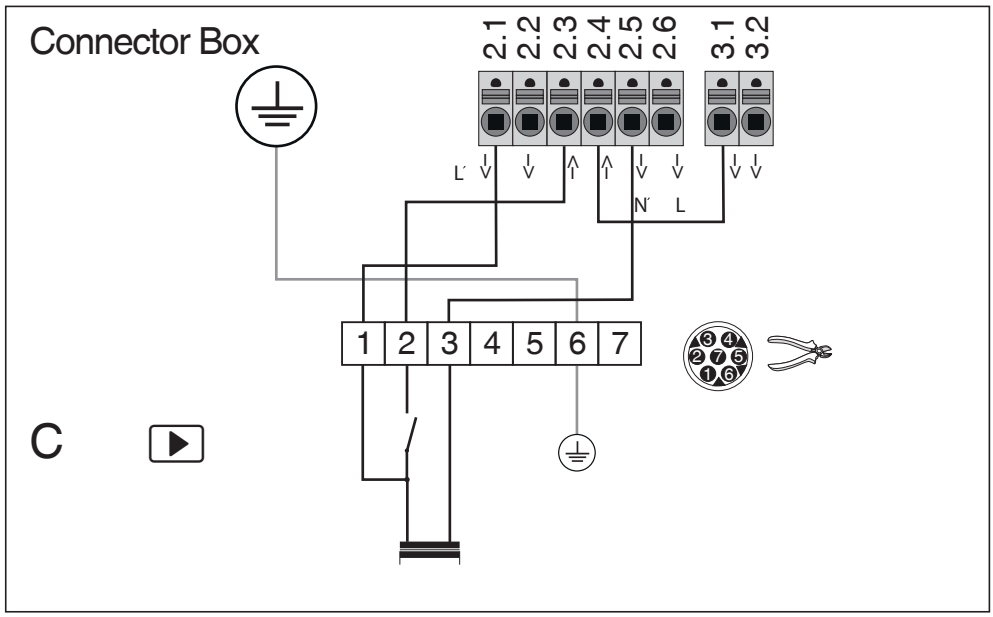
C5003



C4030, C4031, C4065, C4070, C4080



C4060, C5002, C5004



Miele

Miele & Cie. KG
Carl-Miele-Straße 29
33332 Gütersloh
Germany
Telefon: 05241 89-0
Telefax: 05241 89-2090
Internet: www.miele.com/professional

Änderungen vorbehalten/07.21 M.-Nr. 11 763 781 / 00

CE