



SEW
EURODRIVE

Revision



Decentralized Drive Controller **MOVIFIT® FDC**



Table of contents

1	Corrections.....	4
1.1	Overview	4
1.2	Type designation MOVIFIT® FDC	5
2	Electrical installation.....	8
2.1	Installation instructions (all versions)	8
2.2	Installation topology SNI with STO signal (example).....	9
2.3	Installation topology DSC with STO signal (example)	10
2.4	Standard ABOX "MTA...-S04.-...-00"	11
2.5	Hybrid ABOX "MTA...-S84.-...-00"	16
2.6	Electrical connections	18
2.7	Connection cables	23
2.8	Connection examples	24
3	Technical data.....	26
3.1	Conformity.....	26
3.2	Specification of hybrid cables AC 400 V, communication (DSC or SNI) and safe disconnection (STO)	26
4	Declaration of conformity	29

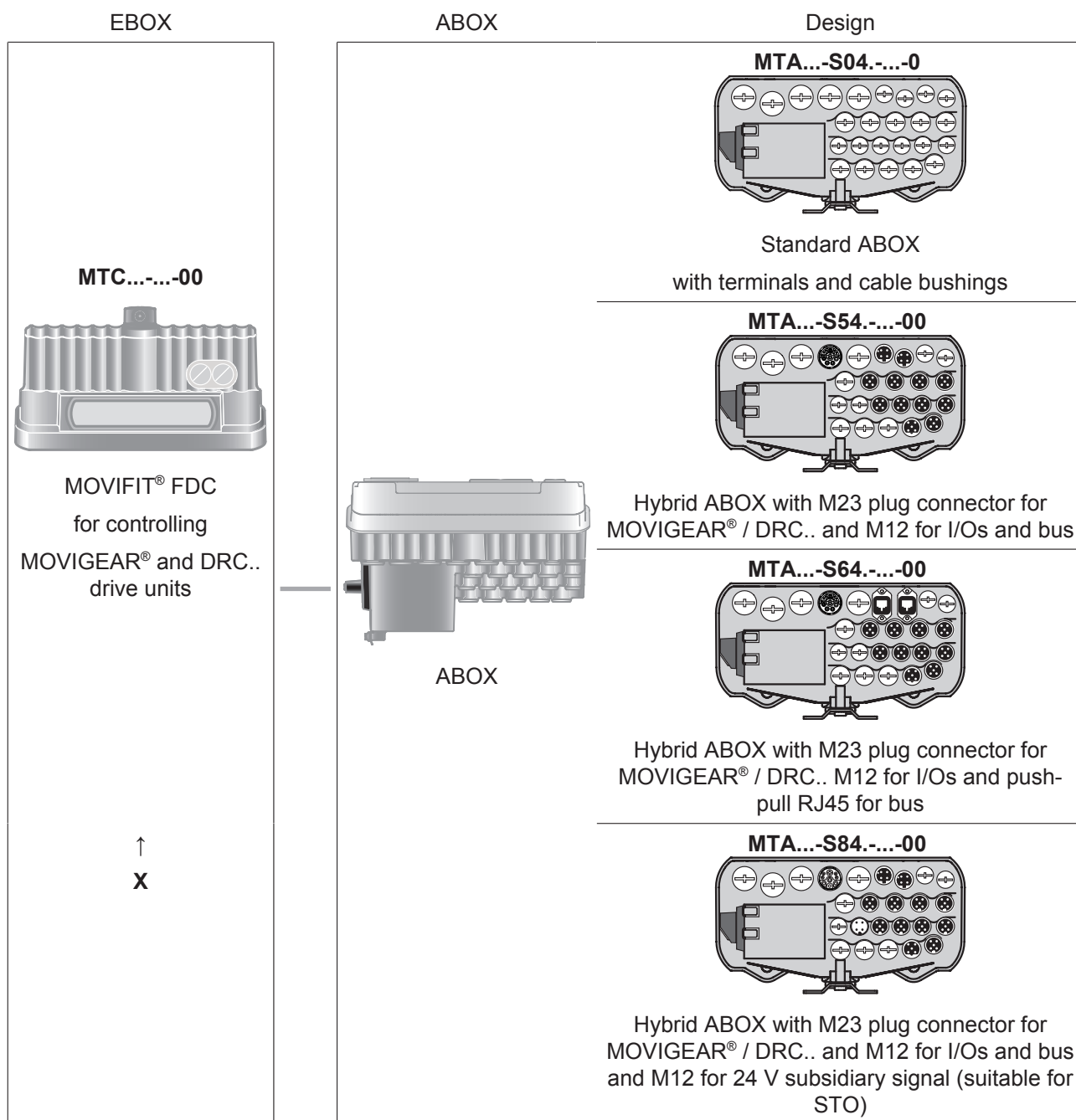
1 Corrections

Corrections have been made to the "MOVIFIT® FDC" operating instructions, part number 19471211/EN.

Please use the data specified in this revision. This document does not replace the detailed operating instructions.

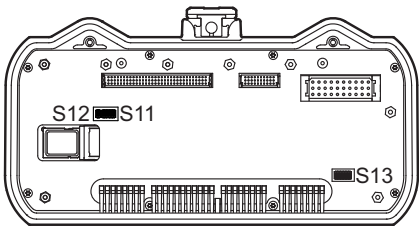
1.1 Overview

The following figure shows the MOVIFIT® FDC designs described in these operating instructions with the standard ABOX and the hybrid ABOX:



23476052/EN – 04/2017

X: Detailed view of the EBOX from bottom



1.2 Type designation MOVIFIT® FDC

1.2.1 EBOX

EBOX nameplates

Outer nameplate EBOX

The following figure shows an example of an **outer** nameplate of the EBOX of MOVIFIT® FDC:

[1] MTC11A000-503-R9500-00

[2] SO#: 01.7181672902.0001.15

[3] Status: 10 13 12 10 -- -- 10 11 --

13849000075

- [1] EBOX type designation
- [2] Serial number
- [3] Status field

Inner nameplate EBOX

The following figure shows an example of an **inner** nameplate of the EBOX of MOVIFIT® FDC:

D-76646 Bruchsal
Made in Germany
MOVIFIT
Elektronikbox

Type: MTC11A000-503-R9500-00

SO#: 01.7181672902.0001.15

Eingang / Input

U = 3x380 ... 500V AC

I = 20.0A AC (400V)

f = 50 ... 60Hz

T = 0 ... +40°C

Feldbus / Fieldbus: Realtime Ethernet Multiprotoc./CCU Standard

Ausgang / Output

U = Uinput

I = Iinput

f = finput

[1] 10 13 12 10 -- -- 10 11 --

ML0001

18014401809034891

- [1] EBOX status field

23476052/EN – 04/2017

1.2.2 ABOX

ABOX nameplates

ABOX unit identification

The following figure shows an example of the ABOX unit identification of MOVIFIT® FDC:

[1] — MTA11A-503-S043-M16-00

13850947211

[1] ABOX type designation

Outer nameplate ABOX

The following figure shows an example of an **outer** nameplate of the ABOX of MOVIFIT® FDC with POF option L10:

[1] — MTC11A000-503-R9500-00
 [2] — MTA11A-503-S743-M16-00/L10
 ID. CONT. EQ. 2D06
 WHEN USED WITH MOVIGEAR DRIVES



17513419403

[1] EBOX type designation

[2] ABOX type designation

Inner nameplate ABOX

The following figure shows an example of an **inner** nameplate of the ABOX of MOVIFIT® FDC:

[1] —

SEW EURODRIVE	
D-76646 Bruchsal Made in Germany MOVIFIT Anschlussbox	
Type: MTA11A-503-S043-M16-00 SO#: 01.1355076502.0001.15 Eingang / Input U = 3x380 ... 500V AC I = 15.0 AAC f = 50 ... 60Hz T = 0 ... +40°C Feldbus/Fieldbus: Ethernet (CU)	Ausgang / Output U = Uinput I = Iinput f = finput
Connection box 13 -- 11 10 -- -- -- -- --	ML0001

18014401814055563

[1] ABOX status field

ABOX type designation

The following table shows an example of the type designation of the MOVIFIT® FDC **MTA11A-503-S043-M16-00/M11** ABOX:

MT	Series	MT = MOVIFIT®
A	Device type	A = ABOX (connection box)
11	Series	11 = Standard (IP65) 13 = For wet areas (IP65)
A	Version A	
-		
50	Connection voltage	50 = 380 V – 500 V
3	Connection type	3 = 3-phase (AC)
-		
S04	Connection configuration	S04 = Standard ABOX with terminals and cable bushings S54 = Hybrid ABOX with M12 for I/Os + bus and plug connector for MOVIGEAR® / DRC.. S64 = Hybrid ABOX with M12 for I/Os push-pull RJ45 for bus and plug connector for MOVIGEAR® / DRC.. S84 = Hybrid ABOX with M12 for I/Os + bus + 24 V subsidiary signal (suitable for STO) and plug connector for MOVIGEAR® / DRC..
3	Fieldbus	3 = PROFINET IO, EtherNet/IP™, Modbus TCP
-		
M16	Maintenance switch	M16 = Load disconnecter and line protection up to 15 A M20 = Load disconnecter and line protection up to 20 A
-		
00	ABOX design	00 = Series
/		
M11	ABOX option	M11 = Stainless steel mounting rail

2 Electrical installation

2.1 Installation instructions (all versions)

2.1.1 Requirements to STO control cable

Observe the following notes when installing STO control cables:

- MOVIFIT® FDC has no STO function.
Observe the manuals for functional safety of the devices that are connected to the MOVIFIT® FDC.
- Supply cables and STO control cables have to be routed in separate cables. This does not apply to cables approved by SEW-EURODRIVE specifically for this case of application.
- The cable length between the safety controller and MOVIGEAR® or DRC.. must not exceed 100 m.
- The wiring technology used must comply with EN 60204-1.
- The STO control cables must be routed according to EMC guidelines and as follows:
 - Outside an electrical installation space: Shielded cables must be routed permanently (fixed) and protected against external damage, or equivalent measures have to be taken.
 - Inside an electrical installation space: Individual cores can be routed.
 - Adhere to the relevant regulations in force for the application.
- Do not use the DC 24 V output of MOVIFIT® FDC for safety-related applications with MOVIGEAR® or DRC...

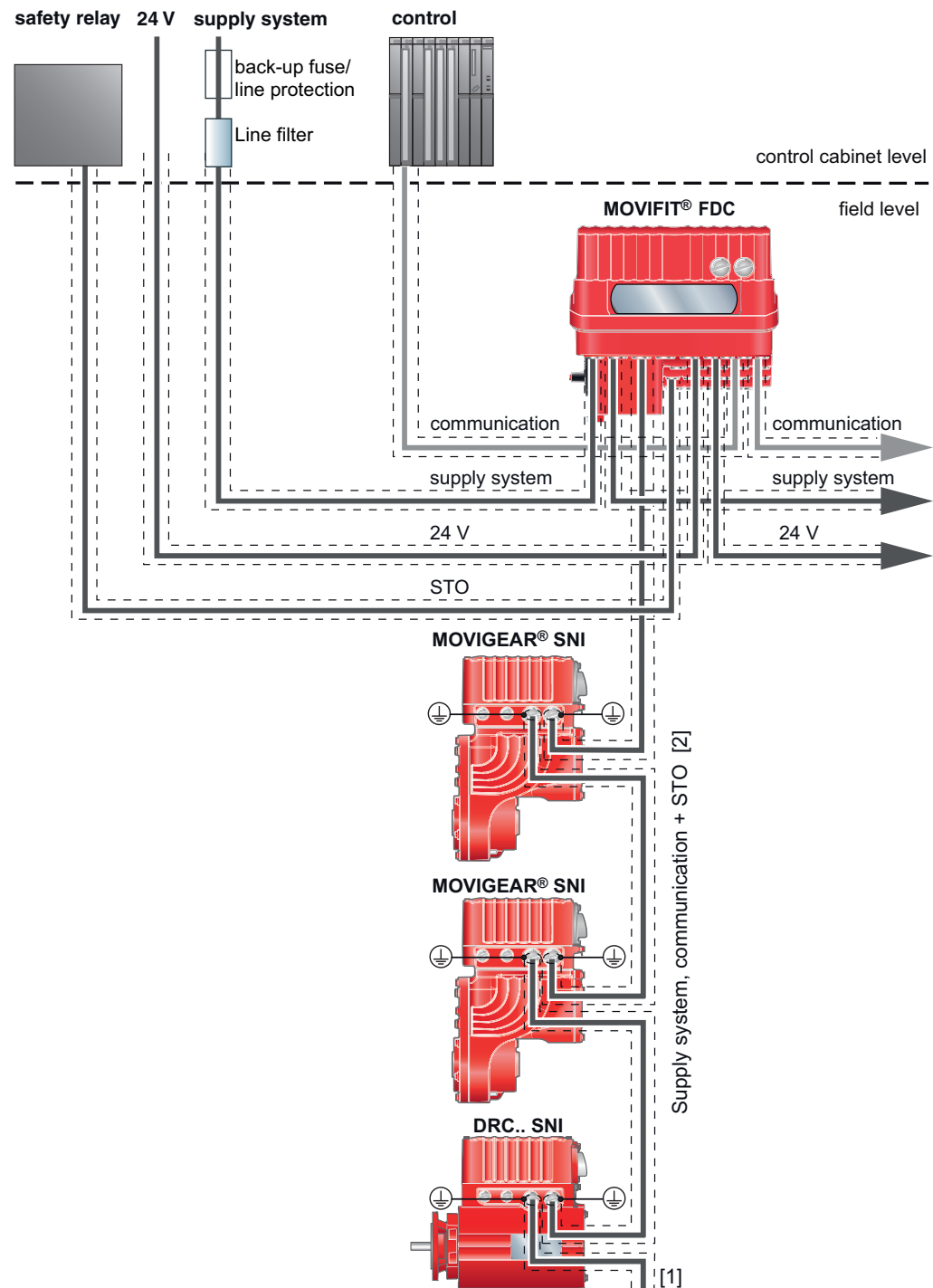
2.1.2 Connection between MOVIFIT® FDC and the MOVIGEAR® and DRC.. drive units

Use only the following cables to connect MOVIFIT® FDC with the MOVIGEAR® and DRC.. drive units:

- Prefabricated SNI cables,
see chapter "Electrical connections" > "X8: 400 V output (SNI)"
- SNI cable with open ends,
see chapter "Technical Data" > "Specified connection cables for single-line installation"
- Prefabricated hybrid cables,
see chapter "Electrical connections" > "X8: 400 V output and CAN bus"
see chapter "Electrical connections" > "X9: 400 V output, communication and 24 V subsidiary signal (suitable for STO)"
- Hybrid cable with open ends,
see chapter "Connection cables" > "Hybrid cables > AC 400 V, communication (DSC or SNI) and safe disconnection (STO)"

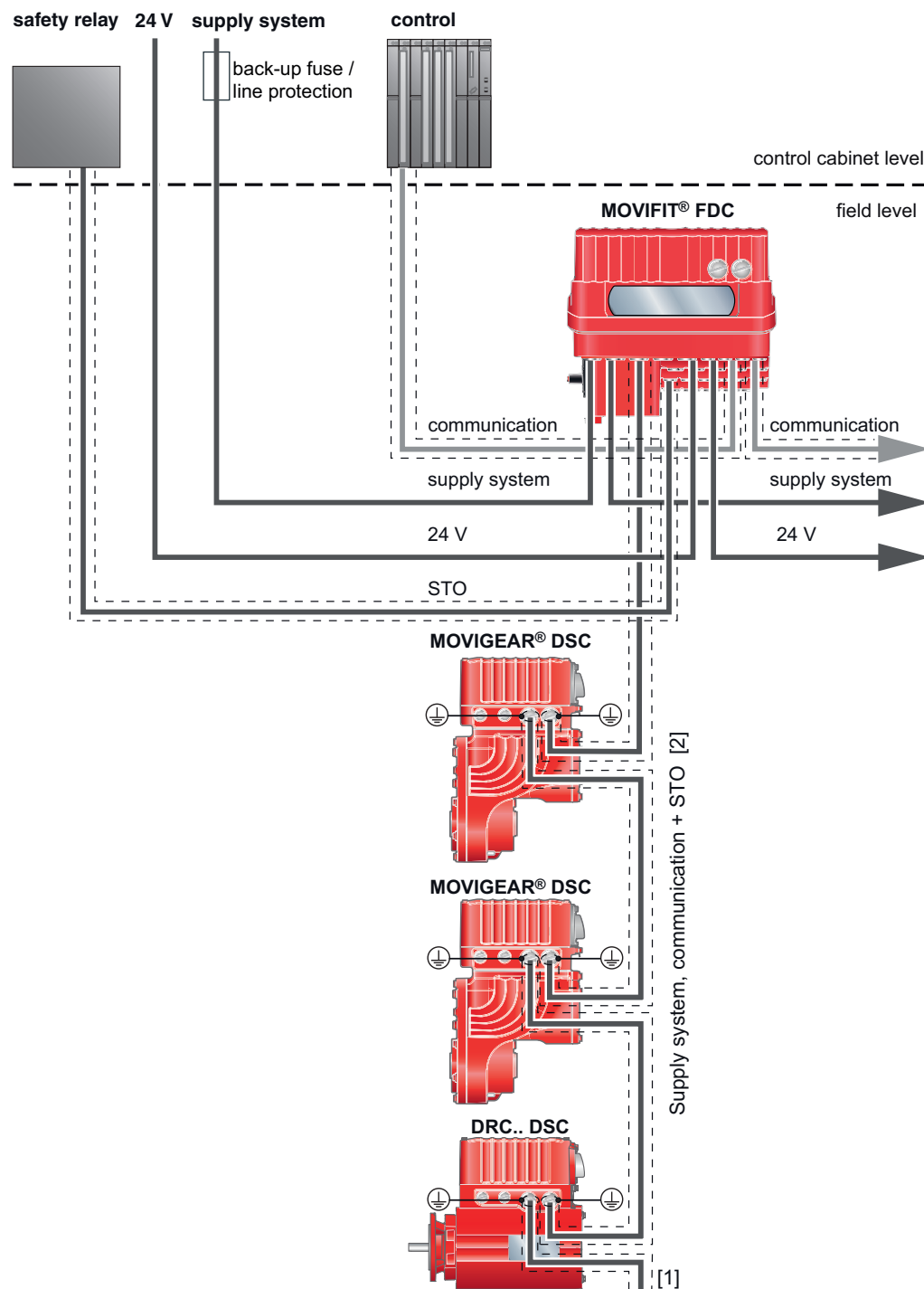
2.2 Installation topology SNI with STO signal (example)

The following figure shows the basic SNI installation topology of MOVIFIT® FDC in conjunction with MOVIGEAR® SNI and DRC..-SNI drive units:



2.3 Installation topology DSC with STO signal (example)

The following figure shows the basic DSC installation topology of MOVIFIT® FDC in conjunction with MOVIGEAR® DSC and DRC..-DSC drive units:



2.4 Standard ABOX "MTA...-S04.-...-00"

2.4.1 Additional installation instructions for "MTA...-S04.-...-00"

SNI connection

Use only the following cables to connect the entire SNI line:

- Prefabricated SNI cables
see chapter "Electrical connections" > "X8: AC 400 V output (SNI)"
or chapter "Electrical connections" > "X9: AC 400 V output, communication and 24 V subsidiary signal (suitable for STO)
- SNI cable with open ends
see chapter "Technical Data" > "Specified connection cables for single-line installation"

You find an example of the installation topology for SNI in chapter "Installation topologies" > "Installation topology SNI (example)".

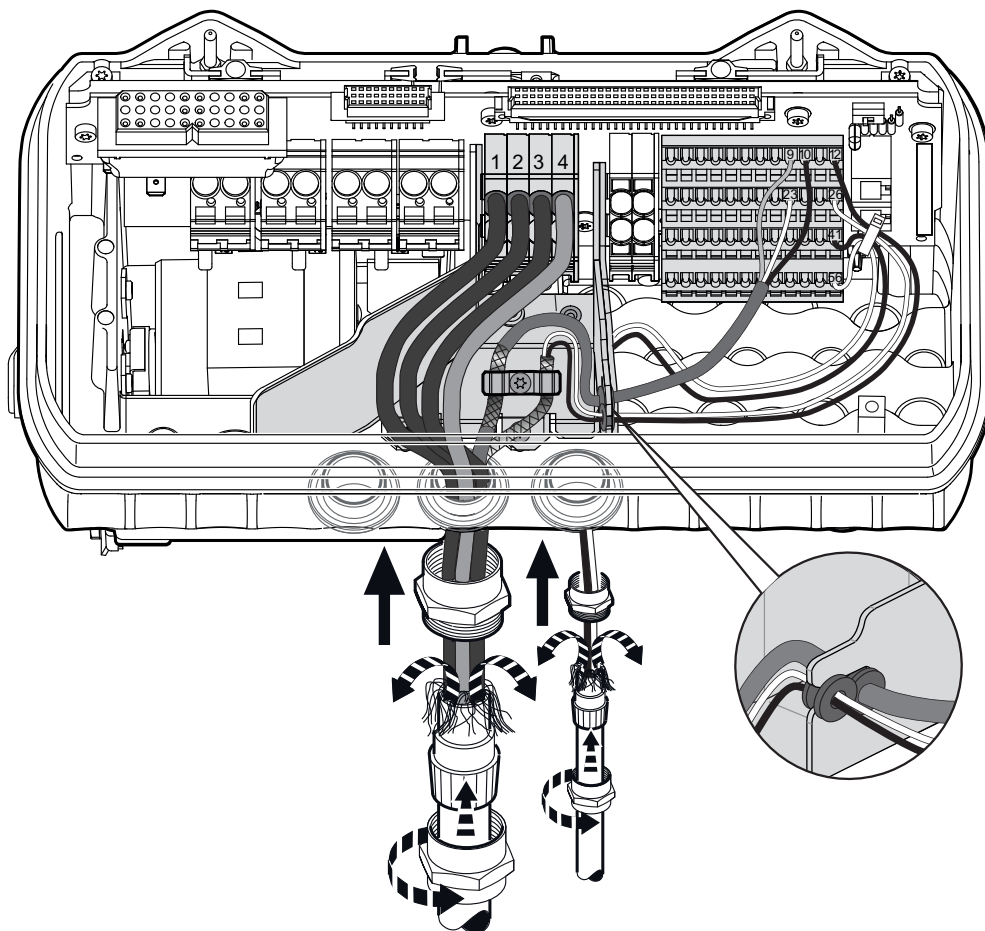
Connecting the hybrid cable with CAN bus and 24 V subsidiary signal (suitable for STO)

NOTICE

Danger due to missing or incorrectly mounted rubber grommet

Damage to the CAN cable

- During installation, make sure the CAN cable and the 24 V subsidiary signal cable are protected with a rubber grommet where they pass through the shield plate (see figure above).
- Push the CAN cable and the 24 V subsidiary signal cable with the rubber grommet in the recess of the shield plate to the back.
- Only use the specifically designed prefabricated hybrid cables for connecting MOVIFIT® FDC with the SBus actuators (MOVIGEAR® DSC or DRC...-DSC).
- The outer cable shield of the hybrid cable must be applied to the MOVIFIT® ABOX as follows using an EMC cable gland.
- The inner cable shields of the CAN cable and the 24 V subsidiary signal cable must be applied to the shield plate of the MOVIFIT® ABOX as follows using a clamp:
- Connect the 4 cores of the 24 V subsidiary signal with a cable tie as close as possible to the terminals (see the following figure).
- For connecting the 24 V subsidiary signal you must use conductor end sleeves.



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2.4.2 Terminal assignment

Important information on the assignment of the X25 terminal strip

MOVIFIT® FDC is delivered with a new assignment of the X25 terminal strip.

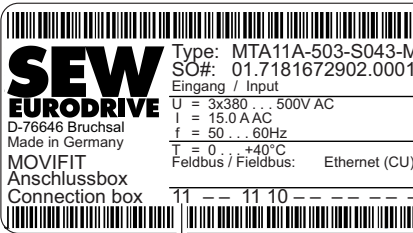
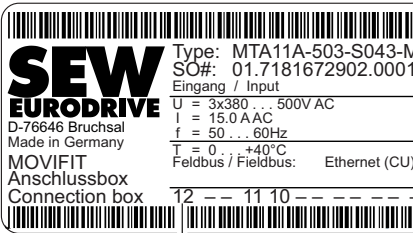
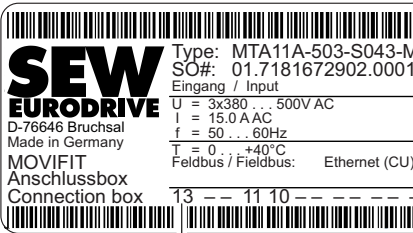
The X25 terminal strip assignment depends on the unit status (position 1) of the ABOX.

NOTICE!

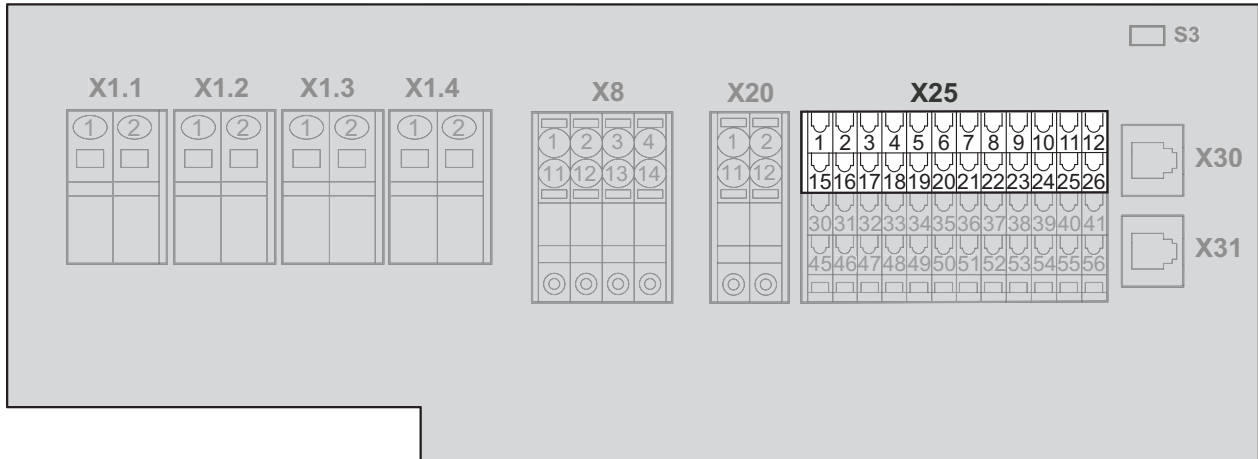
Damage to the EBOX due to incorrect X25 terminal strip connection.

Damage to the EBOX.

- Before connecting the cables to the X25 terminal strip, determine the unit status (position 1) on the inner nameplate of the ABOX.
- Observe the correct assignment when connecting the X25 terminal strip depending on the unit status (position 1) of the ABOX.

Unit status (position 1) of ABOX ≤ 11	Unit status (position 1) of ABOX = 12	Unit status (position 1) of ABOX = 13
 <p>Type: MTA11A-503-S043-M SO#: 01.7181672902.0001 Eingang / Input U = 3x380...500V AC I = 15.0 AAC f = 50...60Hz T = 0...+40°C Feldbus / Fieldbus: Ethernet (CU) MOVIFIT Anschlussbox Connection box 11 -- 11 10 -- -- --</p> <p>[1]</p>	 <p>Type: MTA11A-503-S043-M SO#: 01.7181672902.0001 Eingang / Input U = 3x380...500V AC I = 15.0 AAC f = 50...60Hz T = 0...+40°C Feldbus / Fieldbus: Ethernet (CU) MOVIFIT Anschlussbox Connection box 12 -- 11 10 -- -- --</p> <p>[1]</p>	 <p>Type: MTA11A-503-S043-M SO#: 01.7181672902.0001 Eingang / Input U = 3x380...500V AC I = 15.0 AAC f = 50...60Hz T = 0...+40°C Feldbus / Fieldbus: Ethernet (CU) MOVIFIT Anschlussbox Connection box 13 -- 11 10 -- -- --</p> <p>[1]</p>
[1] Unit status (position 1) = 11	[1] Unit status (position 1) = 12	[1] Unit status (position 1) = 13
Observe in chapter "X25: ..." the columns "Status 11"	Observe in chapter "X25: ..." the columns "Status 12"	Observe in chapter "X25: ..." the columns "Status 13"

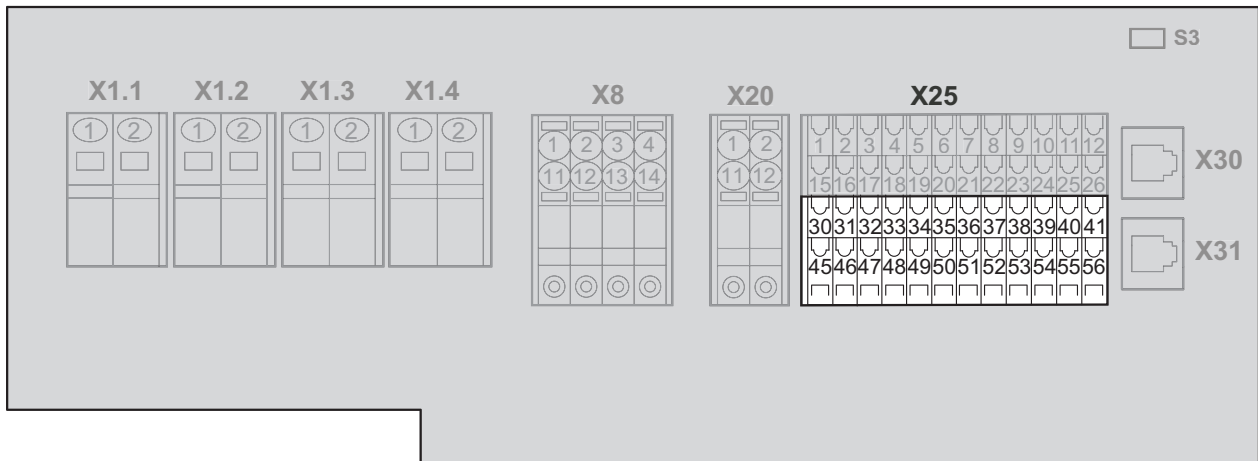
X25: I/O SBus RS485 terminals



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I/O terminals (connection of sensors + actuators)
 SBus terminal (CAN)
 RS485 terminals

No.		Status 11		Status 12		Status 13	
		Name	Function	Name	Function	Name	Function
X25	1	DI00/DO00	Digital input DI00 (switching signal) and digital output DO00				
	2	DI02/DO02	Digital input DI02 (switching signal) and digital output DO02				
	3	DI04	Digital input DI04 (switching signal)				
	4	D06	Digital input DI06 (switching signal)				
	5	DI08	Digital input DI08 (switching signal)				
	6	DI10	Digital input DI10 (switching signal)				
	7	DI12	Digital input DI12 (switching signal)				
	8	DI14	Digital input DI14 (switching signal)				
	9	CAN_H	CAN data line (high)				
	10	CAN_GND	Reference potential for CAN data line	CAN_H	CAN data line (high)	CAN_H	CAN data line (high)
	11	RS+	RS485 data line (+)				
	12	res.	Reserved	res.	Reserved	HT+	DC 24 V subsidiary signal (suitable for STO) max. 4 A
	15	DI01/DO01	Digital input DI01 (switching signal) and digital output DO01				
	16	DI03/DO03	Digital input DI03 (switching signal) and digital output DO03				
	17	DI05	Digital input DI05 (switching signal)				
	18	DI07	Digital input DI07 (switching signal)				
	19	DI09	Digital input DI09 (switching signal)				
	20	DI11	Digital input DI11 (switching signal)				
	21	DI13	Digital input DI13 (switching signal)				
	22	DI15	Digital input DI15 (switching signal)				
	23	CAN_L	CAN data line (low)				
	24	res.	Reserved	CAN_L	CAN data line (low)	CAN_L	CAN data line (low)
	25	RS-	RS485 data line (-)				
	26	res.	Reserved	res.	Reserved	HT-	0V24V subsidiary signal (suitable for STO) max. 4 A



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I/O terminals (connection of sensors + actuators)
SBus terminal (CAN)
RS485 terminals

No.		Status 11		Status 12		Status 13	
		Name	Function	Name	Function	Name	Function
X25	30	+24V	DC 24 V output				
	31	+24V	DC 24 V output				
	32	+24V	DC 24 V output				
	33	+24V	DC 24 V output				
	34	+24V	DC 24 V output				
	35	+24V	DC 24 V output				
	36	+24V	DC 24 V output				
	37	+24V	DC 24 V output				
	38	CAN_H	CAN data line (high) ¹⁾	CAN_GND	Reference potential for CAN data line	CAN_GND	Reference potential for CAN data line
	39	CAN_GND	Reference potential for CAN data line ¹⁾				
	40	+5V_CAN	DC 5 V output (CAN interface supply)				
	41	res.	Reserved	res.	Reserved	HT+	DC 24 V subsidiary signal (suitable for STO) ¹⁾ max. 4 A
	45	GND	Reference potential				
	46	GND	Reference potential				
	47	GND	Reference potential				
	48	GND	Reference potential				
	49	GND	Reference potential				
	50	GND	Reference potential				
	51	GND	Reference potential				
	52	GND	Reference potential				
	53	CAN_L	CAN data line (low) ¹⁾				
	54	res.	Reserved	CAN_H	CAN data line (high) ¹⁾	CAN_H	CAN data line (high) ¹⁾
	55	res.	Reserved	CAN_GND	Reference potential for CAN data line ¹⁾	CAN_GND	Reference potential for CAN data line ¹⁾
	56	res.	Reserved	res.	Reserved	HT-	0V24V subsidiary signal (suitable for STO) ¹⁾ max. 4 A

1) for looping through

2.5 Hybrid ABOX "MTA...-S84.-...-00"

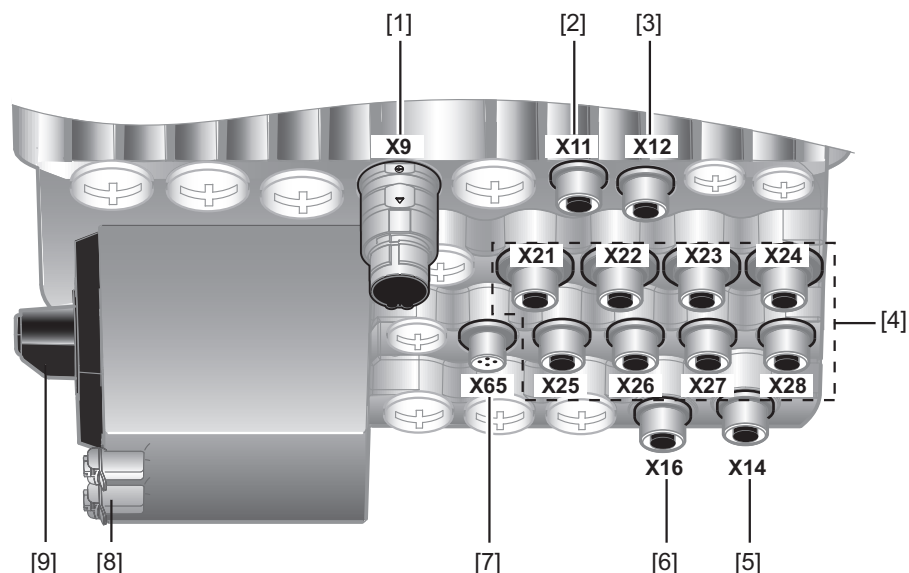
INFORMATION



- The hybrid ABOX is based on the standard ABOX "MTA...-S04.-...-00". You find the description of the additional plug connectors in comparison with the standard ABOX in the "Electrical Connections" chapter.
- For a description of the terminals, refer to chapter "Standard-ABOX "MTA...-S04.-...-00"" (→ 11).
- Customers cannot use terminals X25 and the internal Ethernet plug connectors X30 and X31 because they are assigned to the described plug connectors.

2.5.1 Description

The following figure depicts the hybrid ABOX with M12 plug connectors for connecting I/Os and bus:



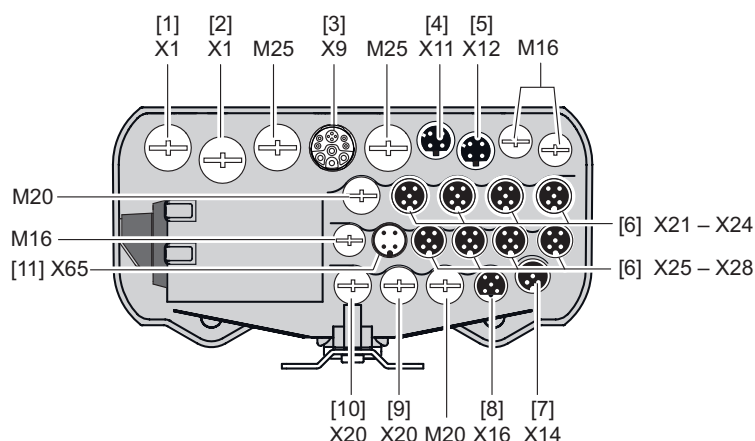
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- | | | |
|-----|-----------|---|
| [1] | X9 | Drive unit connection
AC 400 V output, communication and 24 V subsidiary signal (suitable for STO) |
| [2] | X11 | Ethernet fieldbus, port 1 |
| [3] | X12 | Ethernet fieldbus, port 2 |
| [4] | X21 – X28 | Digital inputs/outputs |
| [5] | X14 | SBus (CAN) – external |
| [6] | X16 | RS485 interface – external |
| [7] | X65 | DC 24 V input subsidiary signal (suitable for STO) |
| [8] | | PE connection |
| [9] | | Maintenance switch |

2.5.2 Plug connector positions

The following figure shows the cable glands and plug connectors of the hybrid ABOX:

PROFINET MTA11A-503-S843-...-00
EtherNet/IP™ MTA11A-503-S843-...-00
Modbus/TCP MTA11A-503-S843-...-00



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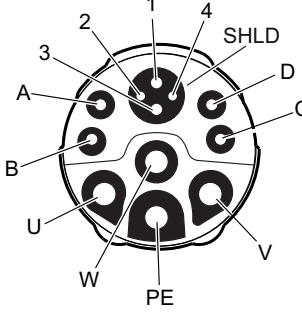
[1]	X1	AC 400 V input	(terminals underneath the M25 gland)
[2]	X1	Reserved	(M25 gland)
[3]	X9	Drive unit connection AC 400 V output, communication and 24 V subsidiary signal (suitable for STO)	(M23, SEW insert, female, SpeedTec-capable, company: Intercontec)
[4]	X11	Ethernet fieldbus, port 1	(M12, 4-pin, female, D-coded)
[5]	X12	Ethernet fieldbus, port 2	(M12, 4-pin, female, D-coded)
[6]	X21 – X28	Digital inputs/outputs	(M12, 5-pin, female, A-coded)
[7]	X14	SBus (CAN) – external	(M12, 5-pin, female, A-coded)
[8]	X16	RS485 interface – external	(M12, 5-pin, female, B-coded)
[9]	X20	Reserved	(M20 gland)
[10]	X20	DC 24 V input	(terminals underneath the M20 gland)
[11]	X65	DC 24 V input subsidiary signal (suitable for STO)	(M12, 4-pin, male, A-coded)

You find the assignment of the plug connectors in the "Electrical Connections" chapter.

2.6 Electrical connections

2.6.1 X9: AC 400 V output, communication, 24 V subsidiary signal (suitable for STO)

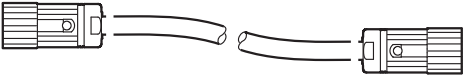

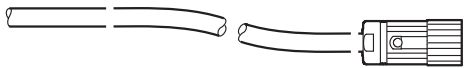

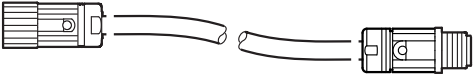

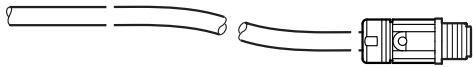
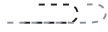
The following table shows information about this connection:

Function		
AC 400 V output to actuator supply, communication, 24 V subsidiary signal (suitable for STO)		
Connection type		
M23, SEW insert, female, SpeedTec-capable, company: Intercontec, female, coding ring: Yellow, protected against contact		
Wiring diagram		
		
Assignment		
No.	Name	Function
U	L1	Actuator supply phase L1 (with SNI communication)
V	L2	Actuator supply phase L2 (with SNI communication)
W	L3	Actuator supply phase L3 (with SNI communication)
PE	PE	PE connection
A	HT+	Subsidiary signal 24 V (suitable for STO)
B	HT-	Subsidiary signal 0V24 (suitable for STO)
C	Res.	Reserved
D	Res.	Reserved
1	CAN_L	CAN data line (low)
2	CAN_GND	Reference potential CAN bus
3	CAN_H	CAN data line (high)
4	Res.	Reserved
SHLD	Shield	Shield/equipotential bonding

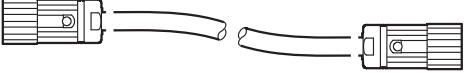

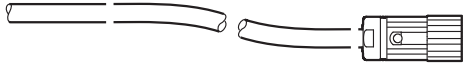

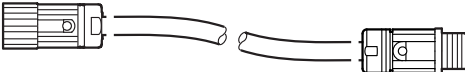
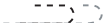
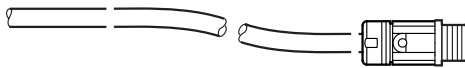
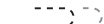
Connection cables

The following tables list the cables available for this connection:

Connection cable 2.5 mm²

Connection cable	Conformity/ part number	Cable type, see also technical data	Length/in- stallation type	Cable cross section/op- erating voltage
 <p>M23, coding ring: yellow, male</p> <p>M23, coding ring: yellow, male</p>	CE/UL: 18177867	LEONI type: LEHC 005295	Variable 	2.5 mm ² / AC 500 V
 <p>Open</p> <p>M23, coding ring: yellow, male</p>	CE/UL: 18191134	LEONI type: LEHC 005295	Variable 	2.5 mm ² / AC 500 V
 <p>M23, coding ring: yellow, male</p> <p>M23, coding ring: yellow, female</p>	CE/UL: 18177883	LEONI type: LEHC 005295	Variable 	2.5 mm ² / AC 500 V
 <p>Open</p> <p>M23, coding ring: yellow, female</p>	CE/UL: 18191401	LEONI type: LEHC 005295	Variable 	2.5 mm ² / AC 500 V

Connection cable 4 mm²

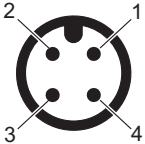
Connection cable	Conformity/ part number	Cable type, see also technical data	Length/in- stallation type	Cable cross section/op- erating voltage
 M23, coding ring: yellow, male M23, coding ring: yellow, male	CE/UL: 18177875	LEONI type: LEHC 005296	Variable 	4 mm ² / AC 500 V
 Open M23, coding ring: yellow, male	CE/UL: 18191142	LEONI type: LEHC 005296	Variable 	4 mm ² / AC 500 V
 M23, coding ring: yellow, male M23, coding ring: yellow, female	CE/UL: 18177891	LEONI type: LEHC 005296	Variable 	4 mm ² / AC 500 V
 Open M23, coding ring: yellow, female	CE/UL: 18191428	LEONI type: LEHC 005296	Variable 	4 mm ² / AC 500 V

Connection of cables with open end

The following table shows the core assignment of cables with the following part numbers:

Part number	Signal name	Core color	Identification
18191134	L1	Black	U/L1
18191401	L2	Black	V/L2
18191142	L3	Black	W/L3
18191428	PE	Green/yellow	-
	STO+	Black	2
	STO-	Black	1
	CAN_L	Blue	-
	CAN_GND	Drain wire	-
	CAN_H	White	-

2.6.2 X65: DC 24 V subsidiary signal (suitable for STO)

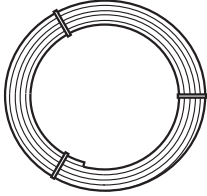
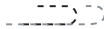
Function		
DC 24 V subsidiary signal input (suitable for the connection of a STO signal to loop through to the plug connector X9)		
Connection type		
M12, 4-pin, male, A-coded, color: orange		
Wiring diagram		
		
Assignment		
No.	Name	Function
1	Res.	Reserved
2	HT-	Subsidiary signal 0V24 (suitable for STO)
3	Res.	Reserved
4	HT+	Subsidiary signal 24 V (suitable for STO), max. 4 A

2.7 Connection cables

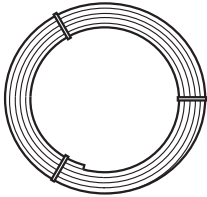

2.7.1 Hybrid cables AC 400 V, communication (DSC or SNI) and safe disconnection (STO)

The following table shows the available hybrid cables:

Cable cross section 2.5 mm²

Hybrid cable				
Lengths that can be preassembled	Conformity/ part number	Cable type see also technical data	Length/ Installation type	Cable cross section/oper- ating voltage
Cable reel 100 m Cable reel 200 m  Open cable end (not prefabricated)	CE/UL: 19162812	LEONI Type: LEHC 005295	Variable 	2.5 mm ² / AC 500 V

Cable cross section 4 mm²

Hybrid cable				
Lengths that can be preassembled	Conformity/ part number	Cable type see also technical data	Length/ Installation type	Cable cross section/oper- ating voltage
Cable reel 100 m Cable reel 200 m  Open cable end (not prefabricated)	CE/UL: 19162820	LEONI Type: LEHC 005296	Variable 	4 mm ² / AC 500 V

2.8 Connection examples

2.8.1 Connecting external SBus

The following figures show the connection of SBus slave units to MOVIFIT® FDC:

- If the MOVIFIT® unit is located at the end of an SBus segment, it is only connected via the incoming SBus cable (CAN).
- To prevent malfunctions in the bus system due to reflections, etc., the SBus segment must be terminated using bus terminating resistors at the first and last physical stations.
- The bus terminating resistors are already installed in the MOVIFIT® ABOX and they can be activated using the S3 switch.

Connection example 1:



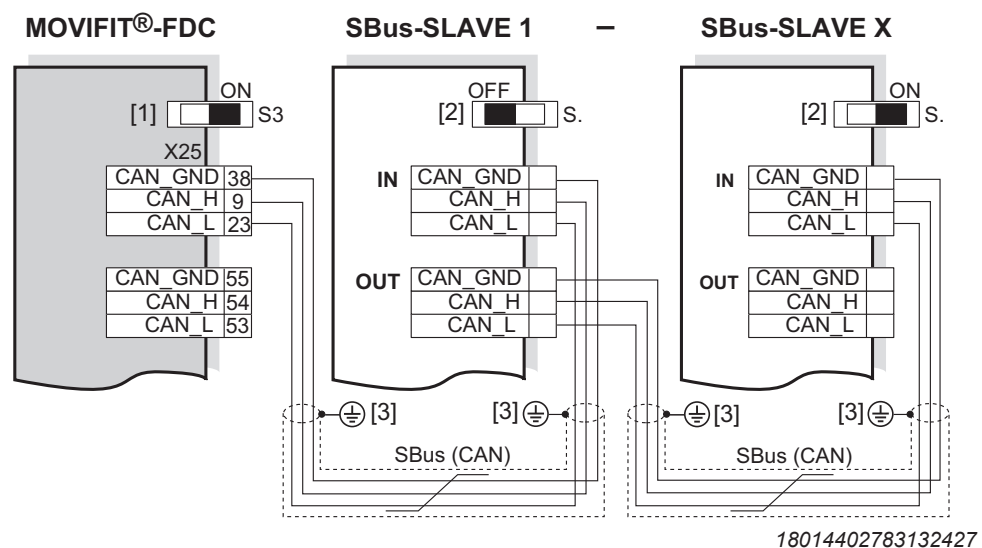
INFORMATION

Connection example 1 applies in combination with the following master ABOXes:

- Standard ABOX "MTA...-S04.-...-00"
- Hybrid ABOX "MTA...-S54.-...-00"
- Hybrid ABOX "MTA...-S64.-...-00"

The SBus master MOVIFIT® FDC is located at the end of the SBus segment.

DIP switch S3 of the SBus master MOVIFIT® FDC = "ON".



X = 16 – Number of connected SBus units

- [1] DIP switch S3 for bus termination
- [2] DIP switch for bus termination in slave unit
- [3] EMC cable gland

INFORMATION



If the SBus is connected to the master using the external plug connector X14, then only connection example 1 is possible.

Connection example 2:

INFORMATION

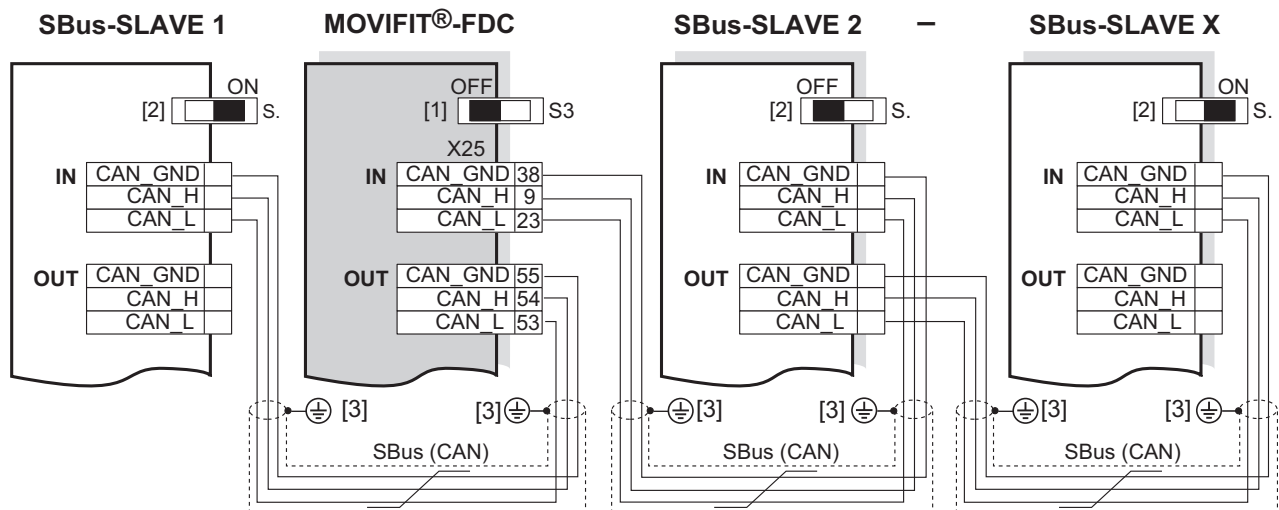


The connection example below applies in combination with the following master ABOX:

- Standard ABOX "MTA...-S04.-...-00"

The SBus master MOVIFIT® FDC is located between the SBus slaves.

DIP switch S3 of the master MOVIFIT® FDC = "OFF".



18014402783135883

X = 16 – Number of connected SBus units

- [1] DIP switch S3 for bus termination
- [2] DIP switch for bus termination in slave unit
- [3] EMC cable gland

3 Technical data

3.1 Conformity

3.1.1 EAC marking

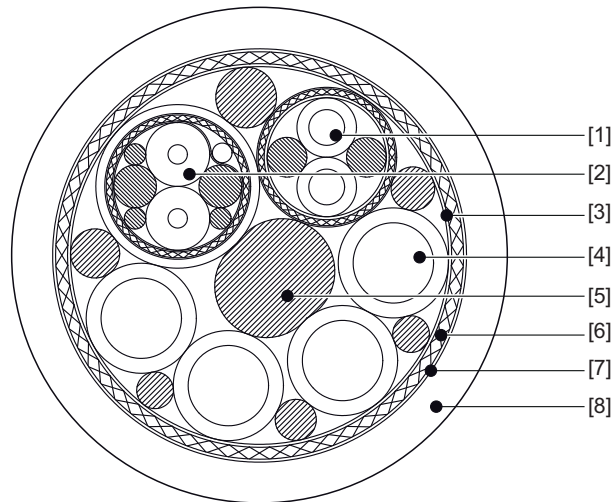


The MOVIFIT® unit series fulfills the requirements of the technical regulations of the Customs Union of Russia, Kazakhstan, and Belarus.

The EAC marking on the nameplate certifies the conformity with the safety requirements of the Custom Union.

3.2 Specification of hybrid cables AC 400 V, communication (DSC or SNI) and safe disconnection (STO)

The following figure shows the structure of the hybrid cable:




9007219046263179

	Type: Leoni LEHC 005295 Rev.2	Type: Leoni LEHC 005296 Rev.2
[1]	1 core pair	0.75 mm ²
	Conductor	Stranded copper wire, 42 x 0.15 mm
	Insulation	Polypropylene
	Colors	Black cores with white digits 1, 2
	Shield	Braided copper wire, 0.1 mm, tinned
	Optical cover- age	min. 85%
	Sheath	Banding

	Type: Leoni LEHC 005295 Rev.2		Type: Leoni LEHC 005296 Rev.2	
[2]	1 core pair	2 x 0.24 mm ²		
	Conductor	Stranded copper wire, blank, 19 x 0.127 mm		
	Insulation	Polypropylene		
	Colors	White and blue		
	Shield	Banding		
	Drain wire	0.34 mm ²		
	Conductor	Stranded copper wire, blank, 19 x 0.15 mm		
	Shield	Braided copper wire, 0.10 mm, tinned		
Optical cover- age	min. 85%			
Sheath	TPE			
Color	Violet			
[3]	Banding			
[4]	4 cores	2.5 mm ²	4 cores	4.0 mm ²
	Conductor	Stranded copper wire, blank, 147 x 0.15 mm	Conductor	Stranded copper wire, blank, 224 x 0.15 mm
	Insulation	Polypropylene	Insulation	Polypropylene
	Colors	Green/yellow, black with lettering U/L1; V/L2; W/L3	Colors	Green/yellow, black with lettering U/L1; V/L2; W/L3
[5]	Filler			
[6]	Shield	Braided tinned copper wires, 0.15 mm	Shield	Braided tinned copper wires, 0.20 mm
	Optical cover- age	min. 87%	Optical cover- age	min. 87%
[7]	Banding	EMC fleece		
[8]	Outer cable sheath	Polyurethane		
	Color	Orange (similar to RAL2003)		

3.2.1 Technical data of hybrid cables

The following table shows the technical data of the hybrid cable:

Properties	Type: Leoni LEHC 005295 Rev.2	Type: Leoni LEHC 005296 Rev.2
UL features	UL style 20234, 80 °C, 1000 V E47543-LIL  certified	
Test voltage core/core	4.0 kV 50 Hz AC	
Test voltage core/shield	3.0 kV 50 Hz AC	
Operating voltage Position [4]	1000 V	
Wave impedance Position [2]	125 $\Omega \pm 10\%$	
Attenuation Position [2]	Nom. 2.5dB/100m at 1 MHz Nom. 6.5dB/100m at 10 MHz	
Runtime Position [2]	Nom. 5ns/m	
Operating temperature	-30 °C to +80 °C (fixed installation) -25 °C to +80 °C (cable carrier)	
Weight of cable	Nom. 342 g/m	Nom. 428 g/m
Bending radii	Min. 5 x outer diameter (fixed installation) Min. 10 x outer diameter (cable carrier)	
Cable diameter	15.6 mm \pm 0.5 mm	16.7 mm \pm 0.5 mm
Chemical properties	<ul style="list-style-type: none"> Oil resistance according to DIN VDE 0282-10/ HD 22.10 S2 General fuel resistance (e.g. diesel, gasoline) Flame retardant according to UL 1581 section 1060 Vertical Flame Test (FT1) Flame retardant according to CSA C22.2 No.3-92 Vertical Flame Test (FT1) Flame retardant according to IEC 60332-1-2 Halogen-free according to IEC 60754-1 General resistance to acids, alkalis, and cleaning agents General hydrolytic resistance General resistance against UV radiation Free from paint-wetting impairment substances 	

4 Declaration of conformity

EU Declaration of Conformity



Translation of the original text

900420210/EN

SEW-EURODRIVE GmbH & Co. KG
Ernst-Blickle-Straße 42, D-76646 Bruchsal

declares under sole responsibility that the following products

Control system of the series **MOVIPRO® SNI controller**
 MOVIFIT® SNI controller
 MOVIFIT® FDC SNI

are in conformity with

Low Voltage Directive **2006/95/EC (valid until April 19, 2016)**
 2014/35/EU (valid as of April 20, 2016)
 (L 96, 29.03.2014, 357-374)

EMC Directive **2004/108/EC (valid until April 19, 2016)** **4)**
 2014/30/EU (valid as of April 20, 2016) **4)**
 (L 96, 29.03.2014, 79-106)

Applied harmonized standards: **EN 61800-5-1:2007**
 EN 61800-3:2004/A1:2012

- 4) According to the EMC Directive, the listed products are not independently operable products. EMC assessment is only possible after these products have been integrated in an overall system. For the assessment, the product was installed in a typical plant configuration.

Bruchsal

18.04.2016

Place

Date

Johann Soder

Managing Director Technology

a) b)

- a) Authorized representative for issuing this declaration on behalf of the manufacturer
 b) Authorized representative for compiling the technical documents







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Driving the world

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