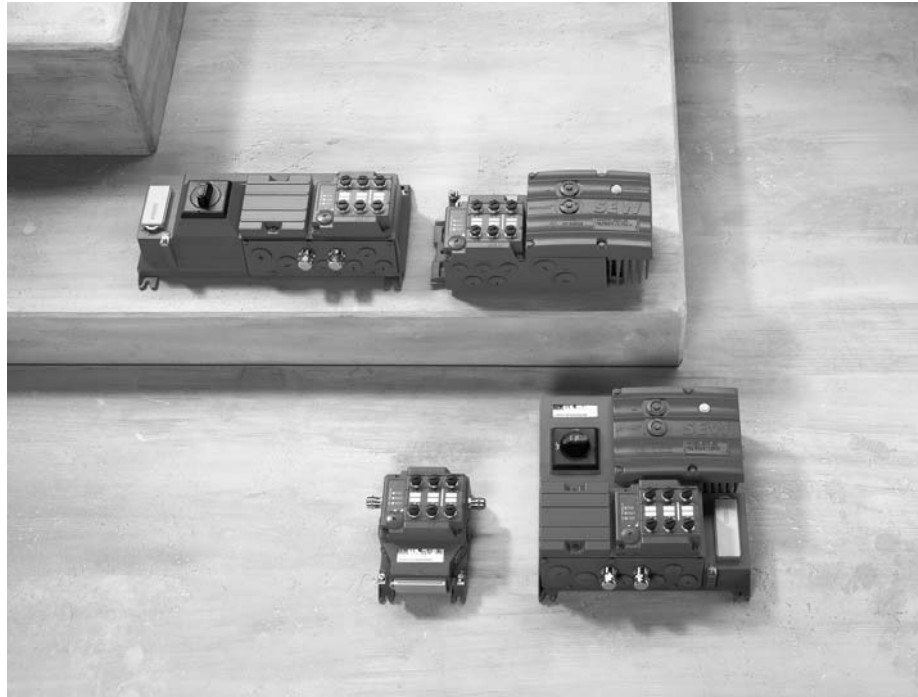


5 Fieldbus Interfaces and Field Distributors

5.1 Description

The following figure shows field distributors from SEW-EURODRIVE:



1507298827

5.1.1 Fieldbus interfaces MF.. / MQ..

Type MF.. fieldbus interfaces allow for connecting MOVIMOT® and MOVI-SWITCH® drives to a standardized fieldbus system. These fieldbus interfaces not only allow for controlling MOVIMOT® and MOVI-SWITCH® drives but also for reading sensor signals as well as controlling actuators via the digital input and output terminals. All fieldbus interfaces and field distributors are supplied in IP65 enclosures as standard.

Type MQ.. fieldbus interfaces are based on the same housing and fieldbus technology as type MF.. fieldbus interfaces but are additionally equipped with an integrated control featuring the following functions:

- Programmable using IPOS^{plus}®
- Simple positioning with EI76 incremental encoder
- Integrated I/O preprocessing and timing elements
- Protocol modification

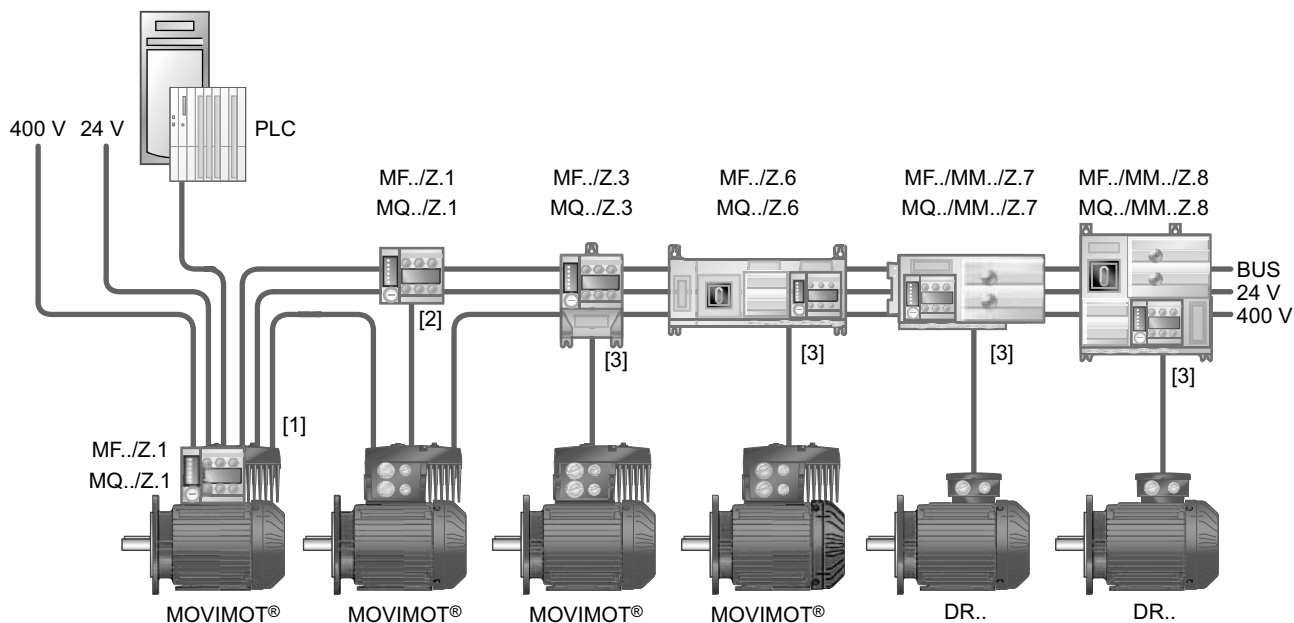
5.1.2 Field distributors

Field distributors rationalize the connection of drives with the power supply system, the control voltage and the fieldbus. The units are based on the bus interfaces technology with additional connection technology for power distribution.

Field distributors reduce the amount of work involved in project planning and the time required for installation and startup to a minimum.

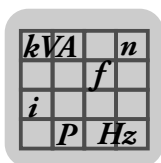
5.1.3 Installation topology

The following figure shows the installation topology of MOVIFIT[®] with fieldbus interfaces MF.. / MQ.. and field distributors:



5068858507

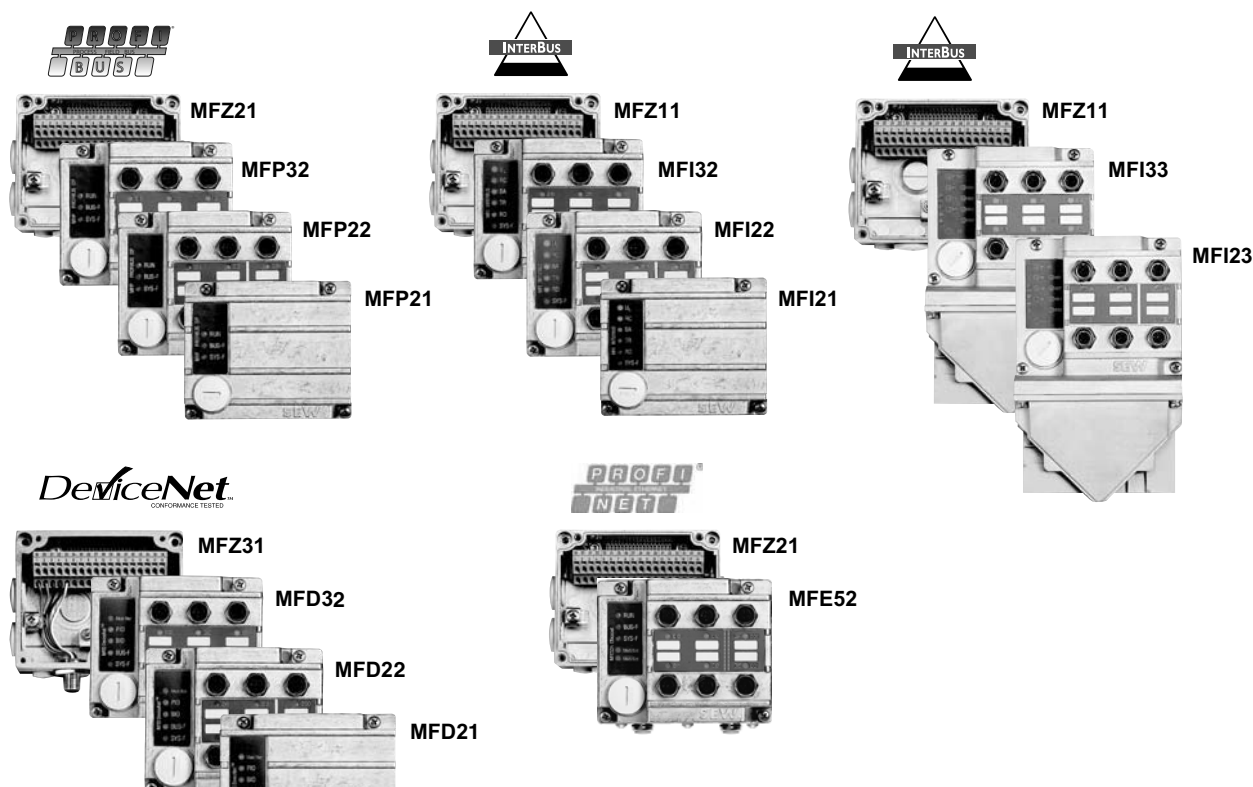
- [1] Fieldbus interface of the drive
- [2] Fieldbus interface in the field
- [3] Fieldbus interface of the field distributor



5.2 Fieldbus interfaces

5.2.1 MF../Z.1 fieldbus interfaces

The following figure shows the dimensions of the fieldbus interface MF../Z.1:

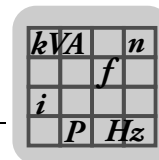


9007200668249483

PROFIBUS variants

The following figure shows the PROFIBUS variants of the fieldbus interface MF../Z.1:

Module type	MFP21D	MFP22D	MFP32D
Part number	823 624 0	823 625 9	823 626 7
Connection technology	Terminals	M12 and terminals	M12 and terminals
Sensors/actuators			
Binary inputs	4	4	6
Binary outputs	2	2	0
Associated module carrier	MFZ21D or MFZ21D/AVT2/AWT2		
Part number	823 627 5 or 824 299 2		
Fieldbus connection technology	Terminals or M12 plug connectors		
Module + module carrier	MFP21D/Z21D..	MFP22D/Z21D..	MFP32D/Z21D..



INTERBUS variants

The following figure shows the INTERBUS variants of the fieldbus interface MF../Z.1:

Module type	MFI21A	MFI22A	MFI32A
Part number	823 526 0	823 527 9	823 528 7
Connection technology	Terminals	M12 and terminals	M12 and terminals
Sensors/actuators			
Binary inputs	4	4	6
Binary outputs	2	2	0
Associated module carrier	MFZ11A		
Part number	823 514 7		
Fieldbus connection technology	Terminals		
Module + module carrier	MFI21A/Z11A	MFI22A/Z11A	MFI32A/Z11A

INTERBUS variants with fiber optic cable and Rugged Line connector (Phoenix Contact)

The following figure shows the INTERBUS variants with fiber optic cable of the fieldbus interface MF../Z.1:

Module type	MFI23F	MFI33F
Part number	824 335 2	824 336 0
Connection technology	FO (via Rugged Line connector)	
Sensors/actuators	M12 and terminals	
Binary inputs	4	6
Binary outputs	2	0
Associated module carrier	MFZ11A	
Part number	823 514 7	
Module + module carrier	MFI23F/Z11A	MFI33F/Z11A

PROFINET IO variant

The following figure shows the PROFINET I/O variant of the fieldbus interface MF../Z.1:

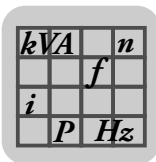
Module type	MFE52A
Part number	1 824 137 9
Connection technology	
Fieldbus	M12, D-coded
Sensors/actuators	M12 and terminals
Binary inputs	4 or 6 ¹⁾
Binary outputs	2 or 0 ¹⁾
Associated module carrier	MFZ21D
Part number	823 627 5
Module + module carrier	MFE52A/Z21D

1) Startup configuration: 4DI and 2 DO or 2DI and 0DO

DeviceNet variants

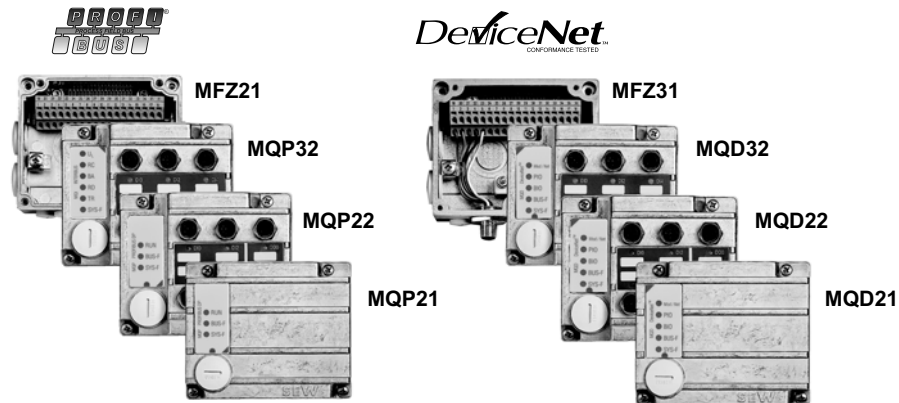
The following figure shows the DeviceNet variants of the fieldbus interface MF../Z.1:

Module type	MFD21A	MFD22A	MFD32A
Part number	823 551 1	823 552 X	823 553 8
Connection technology	Terminals	M12 and terminals	M12 and terminals
Sensors/actuators			
Binary inputs	4	4	6
Binary outputs	2	2	0
Associated module carrier	MFZ31A		
Part number	823 548 1		
Fieldbus connection technology	Micro-style connector		
Module + module carrier	MFD21A/Z31A	MFD22A/Z31A	MFD32A/Z31A



5.2.2 MQ../Z.1 fieldbus interfaces

The following figure shows the variants of the fieldbus interface MQ../Z.1:



18014399923590411

PROFIBUS variants

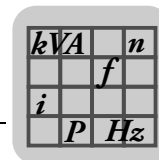
The following figure shows the PROFIBUS variants of the fieldbus interface MQ../Z.1:

Module type	MQP21D	MQP22D	MQP32D
Part number	824 190 2	824 191 0	824 192 9
Connection technology	Terminals	M12 and terminals	M12 and terminals
Sensors/actuators			
Binary inputs	4	4	6
Binary outputs	2	2	0
Associated module carrier	MFZ21D or MFZ21D/AVT2/AWT2		
Part number	823 627 5 or 824 299 2		
Fieldbus connection technology	Terminals or M12 plug connectors		
Module + module carrier	MQP21D/Z21D..	MQP22D/Z21D..	MQP32D/Z21D..

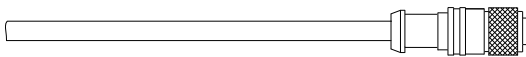
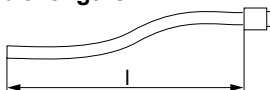
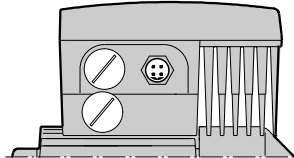
DeviceNet variants

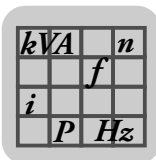
The following figure shows the DeviceNet variants of the fieldbus interface MQ../Z.1:

Module type	MQD21A	MQD22A	MQD32A
Part number	824 200 3	824 201 1	824 202 X
Connection technology	Terminals	M12 and terminals	M12 and terminals
Sensors/actuators			
Binary inputs	4	4	6
Binary outputs	2	2	0
Associated module carrier	MFZ31A		
Part number	823 548 1		
Fieldbus connection technology	Micro-style connector		
Module + module carrier	MQD21A/Z31A	MQD22A/Z31A	MQD32A/Z31A



5.2.3 Cables for connecting fieldbus interfaces and MOVIMOT®

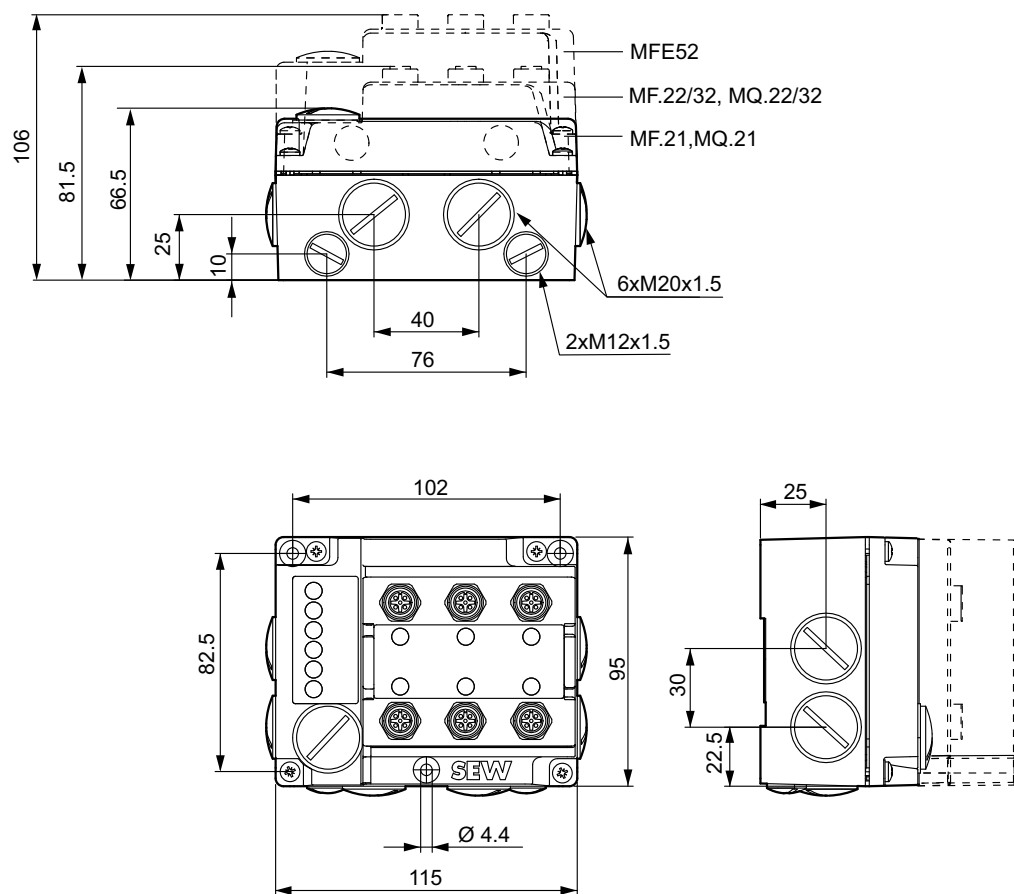
Field distributor Fieldbus interface	Cable	Cable type	Drive
Z.1 Or RS485 master	 Available cable lengths:  l = 5 m: Part number 0 815 592 5 l = 10 m: Part number 0 815 593 3	-	MOVIMOT® with AVT1 plug connector 



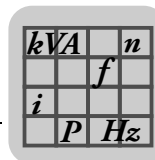
5.2.4 Dimension drawings MF../Z.1, MQ../Z.1 fieldbus interfaces

Dimension sheet
fieldbus interfaces
MF../MQ..

The following figure shows the dimensions of the fieldbus interface MF../MQ.. :

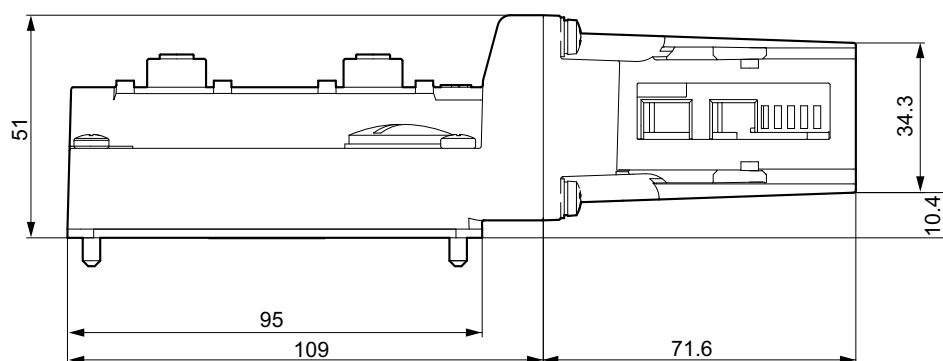
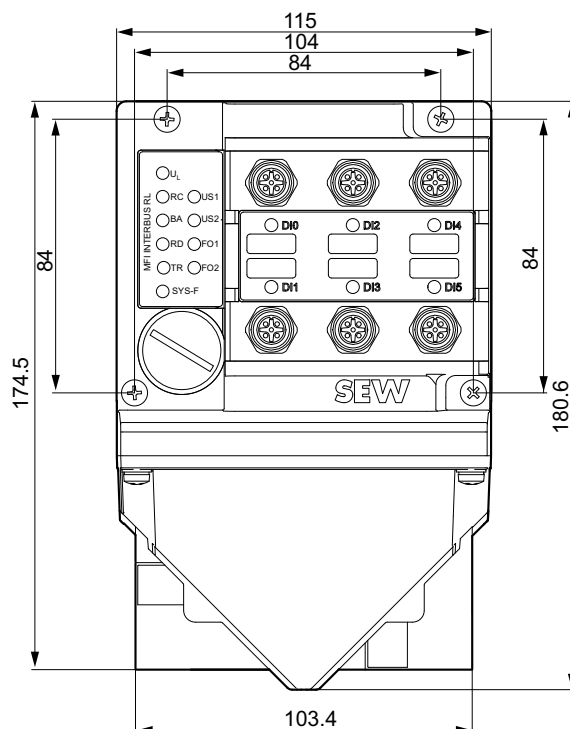


9007200670406923

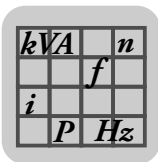


Dimension drawing
of MFI23/MFI33
fieldbus interface
with Rugged Line
connection

The following figure shows the dimensions of the fieldbus interface MFI23/MFI33:

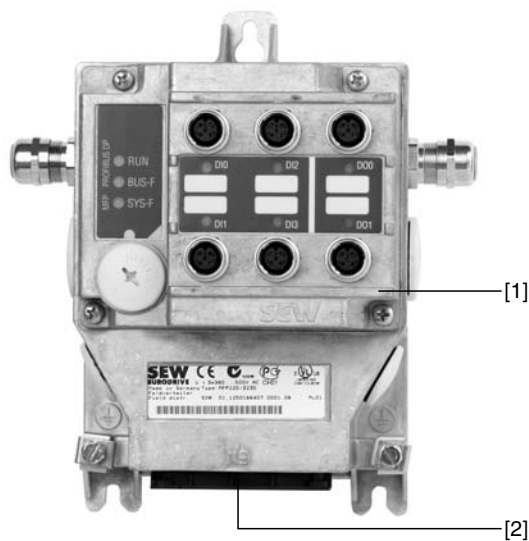


1415668491



5.3 MF../Z.3., MQ../Z.3. field distributors

The following figure shows the MF../Z.3., MQ../Z.3. field distributor:



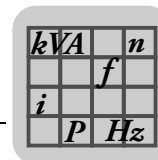
1415970827

- [1] MF../MQ.. fieldbus interface
[2] Prefabricated cable connection

5.3.1 Unit properties

MF../Z.3., MQ../Z.3. field distributors have the following functional characteristics:

- Communication interface with I/Os (I/Os can only be used in combination with M12 plug connector)
- Common wiring space for bus and power terminals
- Pluggable connection to MOVIMOT®/MOVI-SWITCH® (via hybrid cable)



5.3.2 Sample type designation

The following table shows the type designation of MF../Z.3, MQ../Z.3 field distributors:

MFP21D/Z23D

Connection module for controlling MOVIMOT®

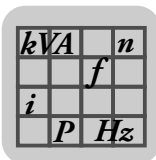
Z13A	= For INTERBUS
Z23D	= For PROFIBUS or PROFINET IO
Z23D/AVT2/AWT2	= With M12 plug connector for PROFIBUS
Z33A	= For DeviceNet

Connection module for controlling MOVI-SWITCH®

Z13W	= For INTERBUS
Z23W	= For PROFIBUS or PROFINET IO
Z23W/AVT2/AWT2	= With M12 plug connector for PROFIBUS
Z33W	= For DeviceNet

Fieldbus interface

MFI..	= INTERBUS
MFP.. / MQP..	= PROFIBUS
MFD../MQD..	= DeviceNet
MFE..	= PROFINET I/O


5.3.3 Possible combinations MF../Z.3. (MOVIMOT® control)

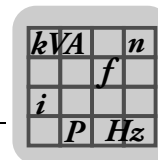
The following table shows the possible combinations of the MF../Z.3 field distributor with fieldbus interfaces:

	no I/O 	4 x I / 2 x O (M12) 	6 x I (M12) 
INTERBUS	MF121A/Z13A	MF122A/Z13A	MF132A/Z13A
INTERBUS with FO and Rugged-Line	-	MF123F/Z13A	MF133F/Z13A
PROFIBUS	MFP21D/Z23D	MFP22D/Z23D	MFP32D/Z23D
PROFIBUS with M12 plug connector for bus connection	MFP21D/Z23D/ AVT2/AWT2	MFP22D/Z23D/ AVT2/AWT2	MFP32D/Z23D/ AVT2/AWT2
PROFINET IO	-	MFE52A/Z23D	
DeviceNet	MFD21A/Z33A	MFD22A/Z33A	MFD32A/Z33A

5.3.4 Possible combinations for MQ../Z.3. (MOVIMOT® control)

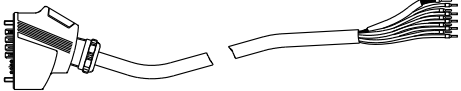
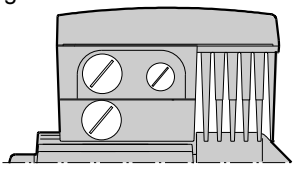
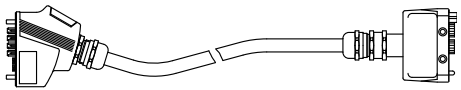
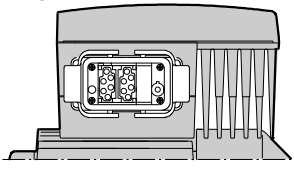
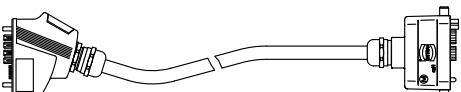
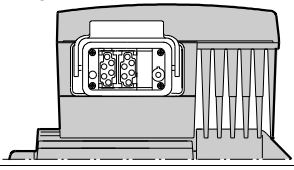
The following table shows the possible combinations of the MQ../Z.3 field distributor with fieldbus interfaces:

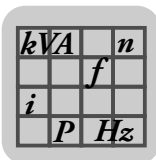
	no I/O 	4 x I / 2 x O (M12) 	6 x I (M12) 
PROFIBUS	MQP21D/Z23D	MQP22D/Z23D	MQP32D/Z23D
PROFIBUS with M12 plug connector for bus connection	MQP21D/Z23D/ AVT2/AWT2	MQP22D/Z23D/ AVT2/AWT2	MQP32D/Z23D/ AVT2/AWT2
DeviceNet	MQD21A/Z33A	MQD22A/Z33A	MQD32A/Z33A



5.3.5 Hybrid cables for connecting Z.3 field distributor and MOVIMOT®

The following table shows the hybrid cables for connecting the MOVIMOT® drive to the field distributors MF../Z.3 or MQ../Z.3:

Field distributors	Hybrid cable	Cable type	Drive
Z.3	Part number: 0186 725 3  <i>Preferred type (preferred lengths 1.5/2/3/5 m) Preferred types with preferred lengths can usually be delivered at short notice</i>	B	MOVIMOT® with cable glands 
	Part number: 0593 516 4  <i>Preferred type (preferred lengths 1.5/2/3/5 m) Preferred types with preferred lengths can usually be delivered at short notice</i>	B	MOVIMOT® with AMA6 plug connector 
	Part number: 0817 112 2  	B	MOVIMOT® with AMD6 plug connector 



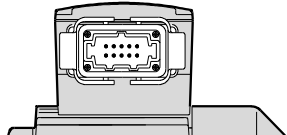
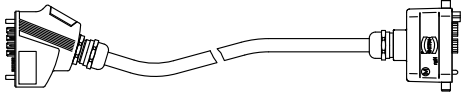
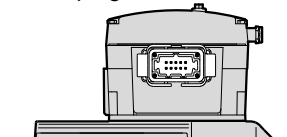
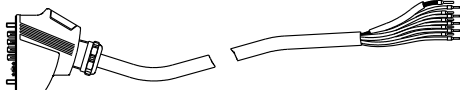
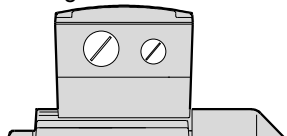
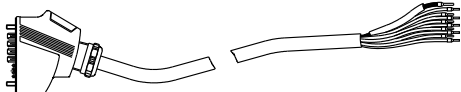
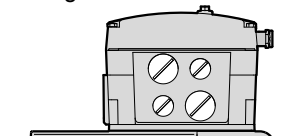
5.3.6 Possible combinations for MF../Z.3W (MOVI-SWITCH® control)

The following table shows the possible combinations of the MF../Z.3W field distributor with fieldbus interfaces:

			
			
INTERBUS	MFI21A/Z13W	MFI22A/Z13W	-
INTERBUS with FO and Rugged-Line	-	MFI23F/Z13W	-
PROFIBUS	MFP21D/Z23W	MFP22D/Z23W	-
PROFIBUS with M12 plug connector for bus connection	MFP21D/Z23W/ AVT2/AWT2	MFP22D/Z23W/ AVT2/AWT2	-
DeviceNet	MFD21A/Z33W	MFD22A/Z33W	-
PROFINET IO	-	MFE52A/Z23W	-

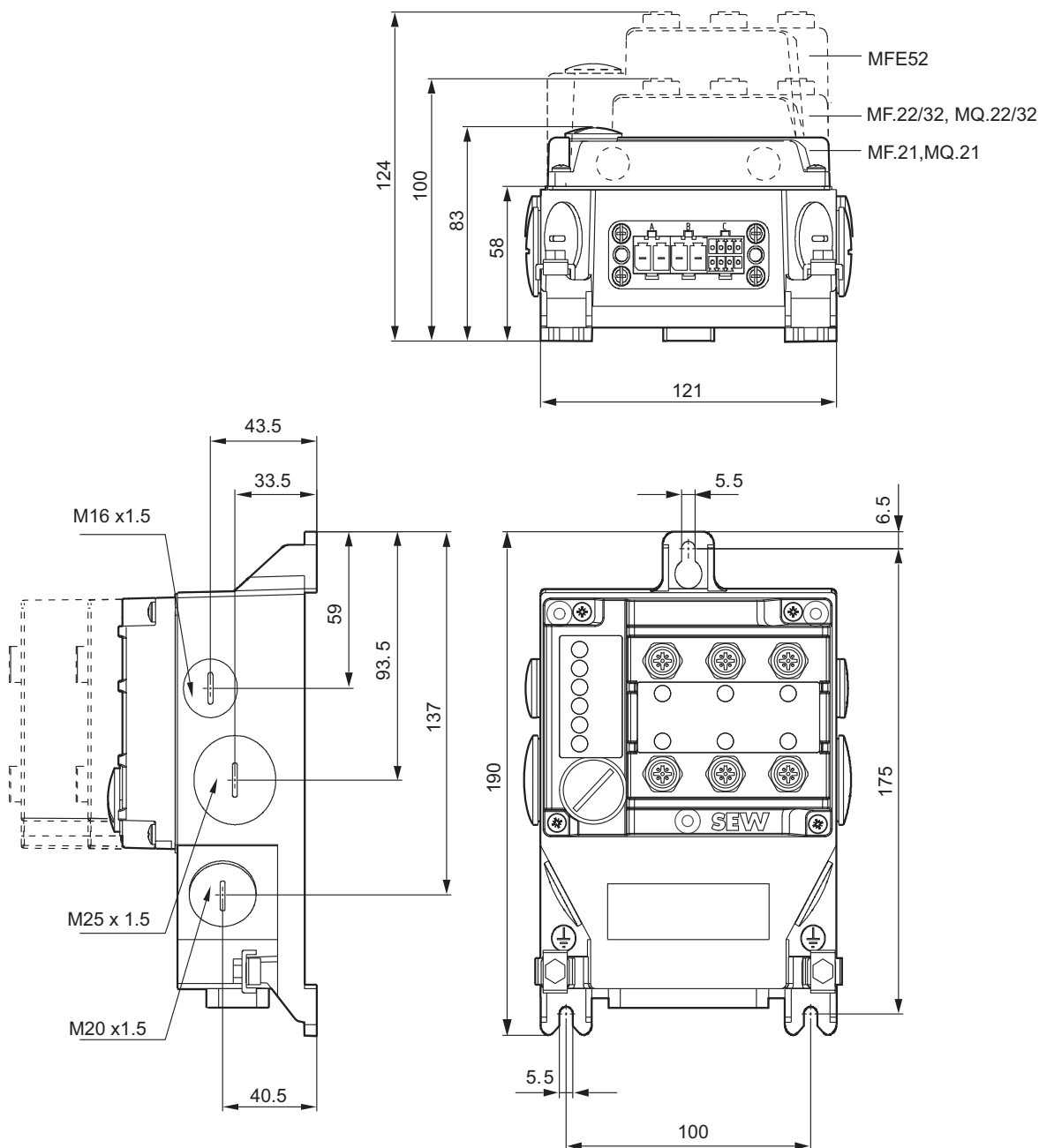
5.3.7 Hybrid cables for connecting Z.3W field distributor and MOVI-SWITCH®

The following table shows the hybrid cables for connecting the MOVIMOT® drive to the field distributor MF../Z.3W:

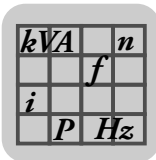
Field distributors	Hybrid cable	Cable type	Drive
Z.3W	Part number: 818 368 6 	B	MOVI-SWITCH® 1E with ASAW plug connector 
	Part number: 818 368 6 	B	MOVI-SWITCH® 2S with ASAW plug connector 
	Part number: 818 705 3 	B	MOVI-SWITCH® 1E with cable glands 
	Part number: 818 708 8 	B	MOVI-SWITCH® 2S with cable glands 

5.3.8 MF../Z.3., MQ../Z.3. field distributors – dimension drawing

The following figure shows the dimensions of the field distributors MF../Z.3. and MQ../Z.3.:

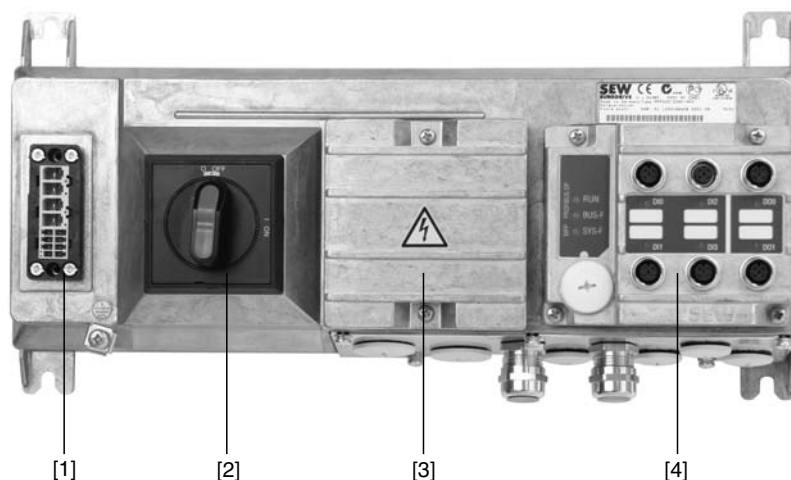


9007200736097291



5.4 MF../Z.6., MQ../Z.6. field distributors

The following figure shows the MF../Z.6., MQ../Z.6. field distributor:



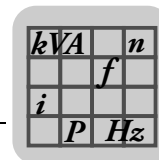
1481358731

- [1] Prefabricated cable connection
- [2] Maintenance switch
- [3] Wiring space for power supply
- [4] MF../MQ.. fieldbus interface

5.4.1 Unit properties

MF../Z.6., MQ../Z.6. field distributors have the following functional characteristics:

- Communication interface with I/Os
- Separate wiring space for bus and power supply
- Pluggable connection to MOVIMOT® (via hybrid cable)
- Maintenance switch (triple lock)
 - with line protection function
 - Made by ABB
 - Type switch element MS 325 - 9
 - Type auxiliary contact HK 20
 - Color: black/red

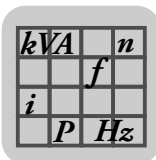


5.4.2 Sample type designation

The following table shows the type designation of the MF../Z.6., MQ../Z.6. field distributors:

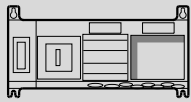
MFP21D/Z26F/AF0

			Connection technology
			AF0 = Metric cable entry
			AF1 = With Micro-style connector for DeviceNet
			AF2 = M12 plug connector for PROFIBUS
			AF3 = M12 plug connector for PROFIBUS and M12 plug connector for 24 V supply
			Connection module for controlling MOVIMOT®
			Z16F = For INTERBUS
			Z26F = For PROFIBUS or PROFINET IO
			Z36F = For DeviceNet
			Connection module for controlling MOVI-SWITCH®
			Z26W = For PROFIBUS or PROFINET IO
			Fieldbus interface
			MFI.. = INTERBUS
			MFP.. / MQP.. = PROFIBUS
			MFE.. = PROFINET IO
			MFD.. / MQD.. = DeviceNet



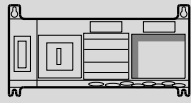
5.4.3 Possible combinations for MF../Z.6. (MOVIMOT® control)

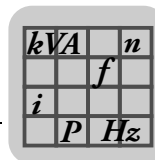
The following table shows the possible combinations of the MF../Z.6 field distributor with fieldbus interfaces:

	4 x I / 2 x O (terminals) 	4 x I / 2 x O (M12) 	6 x I (M12) 
INTERBUS	MFI21A/Z16F/AF0	MFI22A/Z16F/AF0	MFI32A/Z16F/AF0
INTERBUS with FO and Rugged-Line	-	MFI23F/Z16F/AF0	MFI33F/Z16F/AF0
PROFIBUS	MFP21D/Z26F/AF0	MFP22D/Z26F/AF0	MFP32D/Z26F/AF0
	MFP21D/Z26F/AF2	MFP22D/Z26F/AF2	MFP32D/Z26F/AF2
	MFP21D/Z26F/AF3	MFP22D/Z26F/AF3	MFP32D/Z26F/AF3
PROFINET IO	-	MFE52A/Z26F/AF0	
DeviceNet	MFD21A/Z36F/AF1	MFD22A/Z36F/AF1	MFD32A/Z36F/AF1

5.4.4 Possible combinations for MQ../Z.6. (MOVIMOT® control)

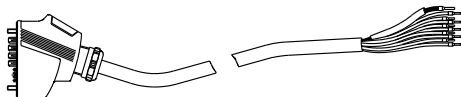
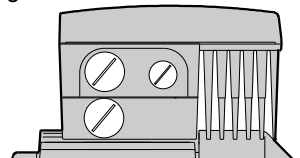
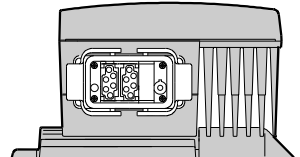
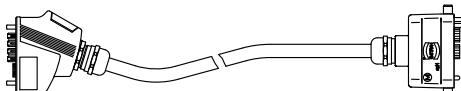
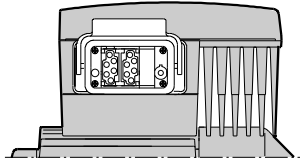
The following table shows the possible combinations of the MQ../Z.6 field distributor with fieldbus interfaces:

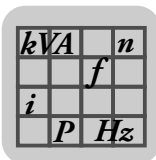
	4 x I / 2 x O (terminals) 	4 x I / 2 x O (M12) 	6 x I (M12) 
PROFIBUS	MQP21D/Z26F/AF0	MQP22D/Z26F/AF0	MQP32D/Z26F/AF0
	MQP21D/Z26F/AF2	MQP22D/Z26F/AF2	MQP32D/Z26F/AF2
	MQP21D/Z26F/AF3	MQP22D/Z26F/AF3	MQP32D/Z26F/AF3
DeviceNet	MQD21A/Z36F/AF1	MQD22A/Z36F/AF1	MQD32A/Z36F/AF1



5.4.5 Hybrid cables for connecting Z..6 field distributor and MOVIMOT®

The following table shows the hybrid cables for connecting the MOVIMOT® drive to the field distributors MF../Z.6 or MQ../Z.6:

Field distributors	Hybrid cable	Cable type	Drive
Z.6	Part number: 0186 725 3  <i>Preferred type (preferred lengths 1.5/2/3/5 m)</i> <i>Preferred types with preferred lengths can usually be delivered at short notice</i>	B	MOVIMOT® with cable glands 
	Part number: 0593 516 4  <i>Preferred type (preferred lengths 1.5/2/3/5 m)</i> <i>Preferred types with preferred lengths can usually be delivered at short notice</i>	B	MOVIMOT® with AMA6 plug connector 
	Part number: 0817 112 2  	B	MOVIMOT® with AMD6 plug connector 



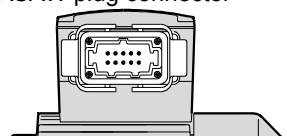
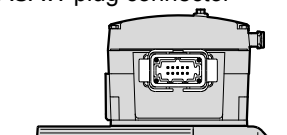
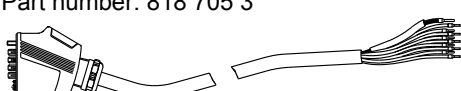
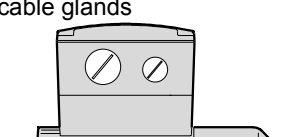
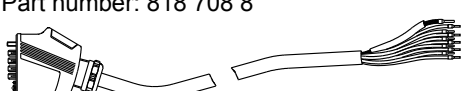
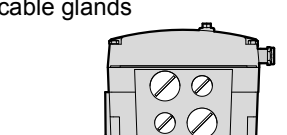
5.4.6 Possible combinations for MF../Z.6W (MOVI-SWITCH® control)

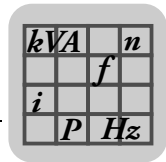
The following table shows the possible combinations of the MF../Z.6W field distributor with fieldbus interfaces:

	4 x I / 2 x O (terminals)	4 x I / 2 x O (M12)	6 x I (M12)
PROFIBUS			
	MFP21D/Z26W/AF0	MFP22D/Z26W/AF0	-
	MFP21D/Z26W/AF2	MFP22D/Z26W/AF2	-
	MFP21D/Z26W/AF3	MFP22D/Z26W/AF3	-
PROFINET IO	-	MFE52A/Z26W/AF0	-

5.4.7 Hybrid cables for connecting Z.6W field distributor and MOVI-SWITCH®

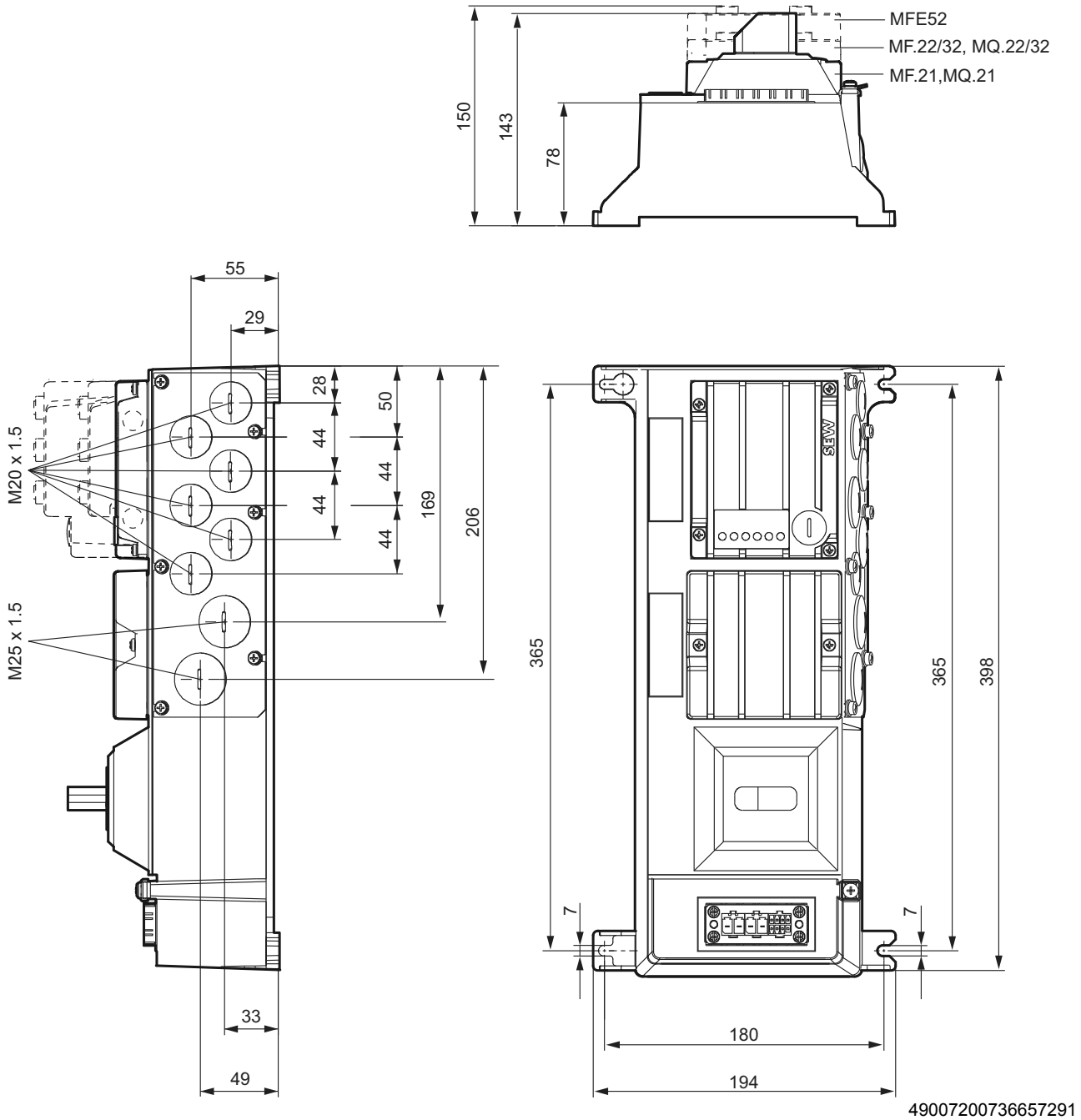
The following table shows the hybrid cables for connecting the MOVIMOT® drive to the field distributor MF../Z.6W:

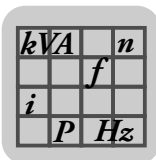
Field distributors	Hybrid cable	Cable type	Drive
Z.6W	Part number: 818 368 6 	B	MOVI-SWITCH® 1E with ASAW plug connector 
	Part number: 818 368 6 	B	MOVI-SWITCH® 2S with ASAW plug connector 
	Part number: 818 705 3 	B	MOVI-SWITCH® 1E with cable glands 
	Part number: 818 708 8 	B	MOVI-SWITCH® 2S with cable glands 



5.4.8 MF../Z.6., MQ../Z.6. field distributors – dimension drawing

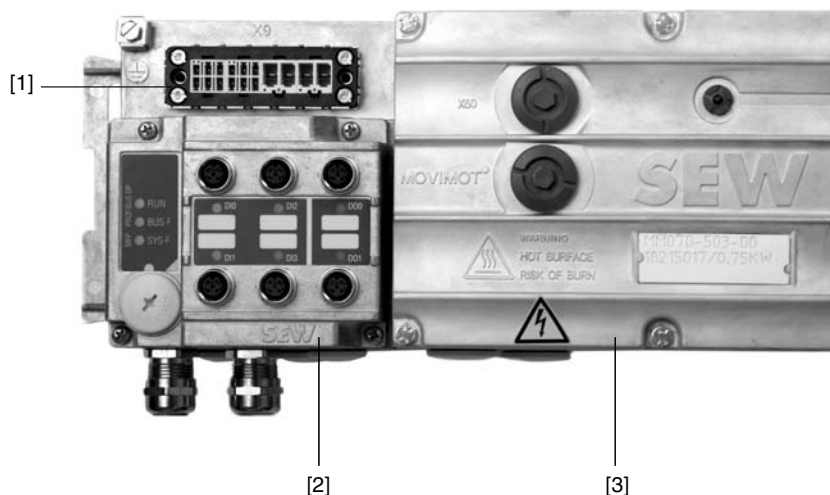
The following figure shows the dimensions of the field distributors MF../Z.6. and MQ../Z.6.:





5.5 MF../MM../Z.7., MQ../MM../Z.7. field distributors

The following figure shows the MF../MM../Z.7., MQ../MM../Z.7. field distributor:



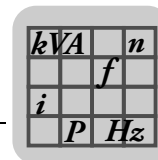
1481919115

- [1] Prefabricated cable connection
- [2] MF../MQ.. fieldbus interface
- [3] MOVIMOT® inverter

5.5.1 Unit properties

The MF../MM../Z.7., MQ../MM../Z.7. field distributors have the following functional characteristics:

- Communication interface with I/Os
- Pluggable connection to MOVIMOT® (via hybrid cable)
- Integrated MOVIMOT® inverter



5.5.2 Sample type designation

The following table shows the type designation of MF../MM../Z.7., MQ../MM../Z.7. field distributors:

MFP22D/MM15D-503-00/Z27F 0¹⁾

					Connection type
				0	=
				1	=
					Connection module
				Z17	= For INTERBUS
				Z27	= For PROFIBUS or PROFINET IO
				Z37	= For DeviceNet
					MOVIMOT® inverter
					MM03 – MM15
					Fieldbus interface
				MFI..	= INTERBUS
				MFP.. / MQP..	= PROFIBUS
				MFE...	= PROFINET IO
				MFD.. / MQD..	= DeviceNet

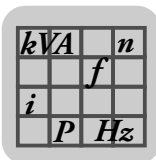
1) If the field distributor is used in combination with a drive without mechanical holding brake, then the field distributor must be ordered with integrated braking resistor (according to the following example).

Integrated braking resistor:



1481921931

For the regenerative load capacity of the braking resistors, refer to section "4Q operation with integrated BW.. braking resistor" (page 299).



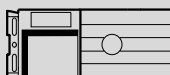
5.5.3 Possible combinations for MF../MM../Z.7.

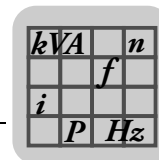
The following table shows the possible combinations of the MF../MM../Z.7. field distributor with fieldbus interfaces:

		4 x I / 2 x O (terminals)	4 x I / 2 x O (M12)	6 x I (M12)
				
INTERBUS	└	MFI21A/MM../D/Z17F 0	MFI22A/MM../D/Z17F 0	MFI32A/MM../D/Z17F 0
	△	MFI21A/MM../D/Z17F 1	MFI22A/MM../D/Z17F 1	MFI32A/MM../D/Z17F 1
INTERBUS with FO and Rugged Line	└	-	MFI23F/MM../D/Z17F 0	MFI33F/MM../D/Z17F 0
	△	-	MFI23F/MM../D/Z17F 1	MFI33F/MM../D/Z17F 1
PROFIBUS	└	MFP21D/MM../D/Z27F 0	MFP22D/MM../D/Z27F 0	MFP32D/MM../D/Z27F 0
	△	MFP21D/MM../D/Z27F 1	MFP22D/MM../D/Z27F 1	MFP32D/MM../D/Z27F 1
PROFINET IO	└	-	MFE52A/MM../D/Z27F 0	
	△	-	MFE52A/MM../D/Z27F 1	
DeviceNet	└	MFD21A/MM../D/Z37F 0	MFD22A/MM../D/Z37F 0	MFD32A/MM../D/Z37F 0
	△	MFD21A/MM../D/Z37F 1	MFD22A/MM../D/Z37F 1	MFD32A/MM../D/Z37F 1

5.5.4 Possible combinations for MQ../MM../Z.7.

The following table shows the possible combinations of the MQ../MM../Z.7. field distributor with fieldbus interfaces:

		4 x I / 2 x O (terminals)	4 x I / 2 x O (M12)	6 x I (M12)
				
PROFIBUS	└	MQP21D/MM../D/Z27F 0	MQP22D/MM../D/Z27F 0	MQP32D/MM../D/Z27F 0
	△	MQP21D/MM../D/Z27F 1	MQP22D/MM../D/Z27F 1	MQP32D/MM../D/Z27F 1
DeviceNet	└	MQD21A/MM../D/Z37F 0	MQD22A/MM../D/Z37F 0	MQD32A/MM../D/Z37F 0
	△	MQD21A/MM../D/Z37F 1	MQD22A/MM../D/Z37F 1	MQD32A/MM../D/Z37F 1

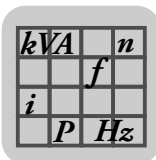


5.5.5 Assignment of motors to MF../MM../Z.7., MQ../MM../Z.7. field distributors

Motor requirements

The following table lists the basic requirements and restrictions for assigned motors. Observe these specifications when ordering the drives assigned to the field distributors:

Integral characteristics	Requirements for the assigned AC motor		
Permitted motors	The permitted motors are listed in section "Motor assignment 1400 rpm" (page 214) and "Motor assignment 2900 rpm" (page 214).		
Permitted nominal motor voltage	Depending on motor series:		
	Motor [Type]	Nominal voltage [V]	Line frequency [Hz]
	DRS	230/400	50
	DRE	230/400	50
	DRS/DRE	230/400	50
Permitted brakes	Depending on motor series:		
	Motor [Type]	Standard brake [Type]	Optional brake [Type]
	DR63L4	BR03	–
	DR.71S4	BE05	BE1
	DR.71M4	BE1	BE05
	DR.80S4	BE1	BE05
	DRS80M4	BE2	BE1
	DRE80M4	BE1	BE05
	DRS90M4	BE2	BE1
	DRE90M4	BE2	BE1
	DRS90L4	BE5	BE2
	DRE90L4	BE2	BE1
Preferred brake voltage	MM..D-503, size 1 (MM03.. – MM15..)		230 V
Brake rectifier	Always order the assigned motor without brake rectifier .		
Permitted plug connectors	- ASB4 plug connector - ISU4 plug connector For additional information, refer to section "Hybrid cables for connecting Z.7 field distributor and motors" (page 215).		
Permitted motor protection	SEW-EURODRIVE recommends to always order the motor with TH thermostat (bimetallic switch). Motor protection can also be implemented in the Expert mode of the MOVIMOT® inverter.		
Permitted encoder system	EI76 incremental encoder (can be evaluated via fieldbus interface with integrated MQ.. mini-controller).		



Fieldbus Interfaces and Field Distributors

MF../MM../Z.7., MQ../MM../Z.7. field distributors

Motor assignment
1400 rpm

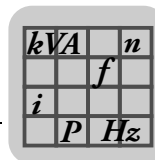
Power rating [kW]	Motor (230 / 400 V, 50 Hz) ┐	Field distributors	
		with MF.. fieldbus interface	with MQ.. fieldbus interface
0.25	DFR63L4/TH	MF../ MM03D / Z.7F 0 / BW1 ¹⁾	MQ../ MM03D / Z.7F 0 / BW1 ¹⁾
	DFR63L4/BR/TH.	MF../ MM03D / Z.7F 0 ¹⁾	MQ../ MM03D / Z.7F 0 ¹⁾
0.37	DRS71S4/TH.	MF../ MM03D / Z.7F 0 / BW1	MQ../ MM03D / Z.7F 0 / BW1
	DRE80S4/TH.	MF../ MM05D / Z.7F 0 / BW1 ¹⁾	MQ../ MM05D / Z.7F 0 / BW1 ¹⁾
	DRS71S4/BE/TH.	MF../ MM03D / Z.7F 0	MQ../ MM03D / Z.7F 0
	DRE80S4/BE/TH.	MF../ MM05D / Z.7F 0 ¹⁾	MQ../ MM05D / Z.7F 0 ¹⁾
0.55	DRS71M4/TH.	MF../ MM05D / Z.7F 0 / BW1	MQ../ MM05D / Z.7F 0 / BW1
	DRE80M4/TH.	MF../ MM07D / Z.7F 0 / BW1 ¹⁾	MQ../ MM07D / Z.7F 0 / BW1 ¹⁾
	DRS71M4/BE/TH.	MF../ MM05D / Z.7F 0	MQ../ MM05D / Z.7F 0
	DRE80M4/BE/TH.	MF../ MM07D / Z.7F 0 ¹⁾	MQ../ MM07D / Z.7F 0 ¹⁾
0.75	DRE80M4/TH.	MF../ MM07D / Z.7F 0 / BW1 MF../ MM11D / Z.7F 0 / BW1 ¹⁾	MQ../ MM07D / Z.7F 0 / BW1 MQ../ MM11D / Z.7F 0 / BW1 ¹⁾
	DRE80M4/BE/TH.	MF../ MM07D / Z.7F 0 MF../ MM11D / Z.7F 0 ¹⁾	MQ../ MM07D / Z.7F 0 MQ../ MM11D / Z.7F 0 ¹⁾
1.1	DRE90M4/TH.	MF../ MM11D / Z.7F 0 / BW1 MF../ MM15D / Z.7F 0 / BW1 ¹⁾	MQ../ MM11D / Z.7F 0 / BW1 MQ../ MM15D / Z.7F 0 / BW1 ¹⁾
	DRE90M4/BE/TH.	MF../ MM11D / Z.7F 0 MF../ MM15D / Z.7F 0 ¹⁾	MQ../ MM11D / Z.7F 0 MQ../ MM15D / Z.7F 0 ¹⁾
1.5	DRE90L4/TH.	MF../ MM15D / Z.7F 0 / BW1	MQ../ MM15D / Z.7F 0 / BW1
	DRE90L4/BE/TH.	MF../ MM15D / Z.7F 0	MQ../ MM15D / Z.7F 0

1) Combination with increased short-term torque

Motor assignment
2900 rpm

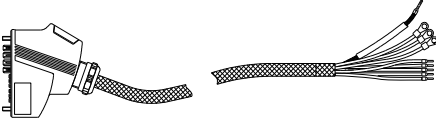
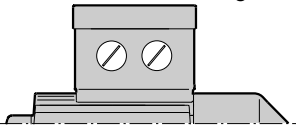
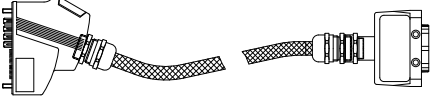
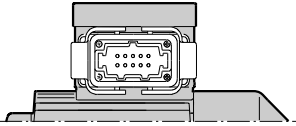
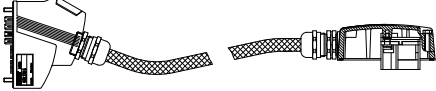
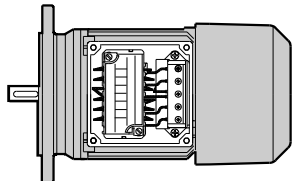
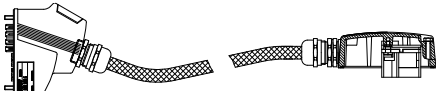
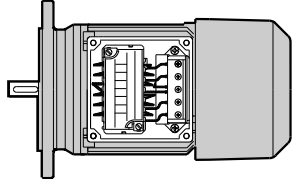
Power rating [kW]	Motor (230 / 400 V, 50 Hz) △	Field distributors	
		with MF.. fieldbus interface	with MQ.. fieldbus interface
0.37	DFR63L4/TH	MF../ MM03D / Z.7F 1 / BW1	MQ../ MM03D / Z.7F 1 / BW1
	DRE80S4/TH.	MF../ MM05D / Z.7F 1 / BW1 ¹⁾	MQ../ MM05D / Z.7F 1 / BW1 ¹⁾
	DFR63L4/BR/TH.	MF../ MM03D / Z.7F 1	MQ../ MM03D / Z.7F 1
	DRE80S4/BE/TH.	MF../ MM05D / Z.7F 1 ¹⁾	MQ../ MM05D / Z.7F 1 ¹⁾
0.55	DRS71S4/TH.	MF../ MM05D / Z.7F 1 / BW1	MQ../ MM05D / Z.7F 1 / BW1
	DRE80S4/TH.	MF../ MM07D / Z.7F 1 / BW1 ¹⁾	MQ../ MM07D / Z.7F 1 / BW1 ¹⁾
	DRS71S4/BE/TH.	MF../ MM05D / Z.7F 1	MQ../ MM05D / Z.7F 1
	DRE80S4/BE/TH.	MF../ MM07D / Z.7F 1 ¹⁾	MQ../ MM07D / Z.7F 1 ¹⁾
0.75	DRS71M4/TH.	MF../ MM07D / Z.7F 1 / BW1	MQ../ MM07D / Z.7F 1 / BW1
	DRE80M4/TH.	MF../ MM11D / Z.7F 1 / BW1 ¹⁾	MQ../ MM11D / Z.7F 1 / BW1 ¹⁾
	DRS71M4/BE/TH.	MF../ MM07D / Z.7F 1	MQ../ MM07D / Z.7F 1
	DRE80M4/BE/TH.	MF../ MM11D / Z.7F 1 ¹⁾	MQ../ MM11D / Z.7F 1 ¹⁾
1.1	DRE80M4/TH.	MF../ MM11D / Z.7F 1 / BW1 MF../ MM15D / Z.7F 1 / BW1 ¹⁾	MQ../ MM11D / Z.7F 1 / BW1 MQ../ MM15D / Z.7F 1 / BW1 ¹⁾
	DRE80M4/BE/TH.	MF../ MM11D / Z.7F 1 MF../ MM15D / Z.7F 1 ¹⁾	MQ../ MM11D / Z.7F 1 MQ../ MM15D / Z.7F 1 ¹⁾
1.5	DRE90M4/TH.	MF../ MM15D / Z.7F 1 / BW1	MQ../ MM15D / Z.7F 1 / BW1
	DRE90M4/BE/TH.	MF../ MM15D / Z.7F 1	MQ../ MM15D / Z.7F 1

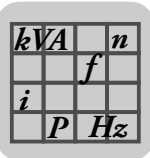
1) Combination with increased short-term torque



5.5.6 Hybrid cables for connecting Z.7 field distributors and motors

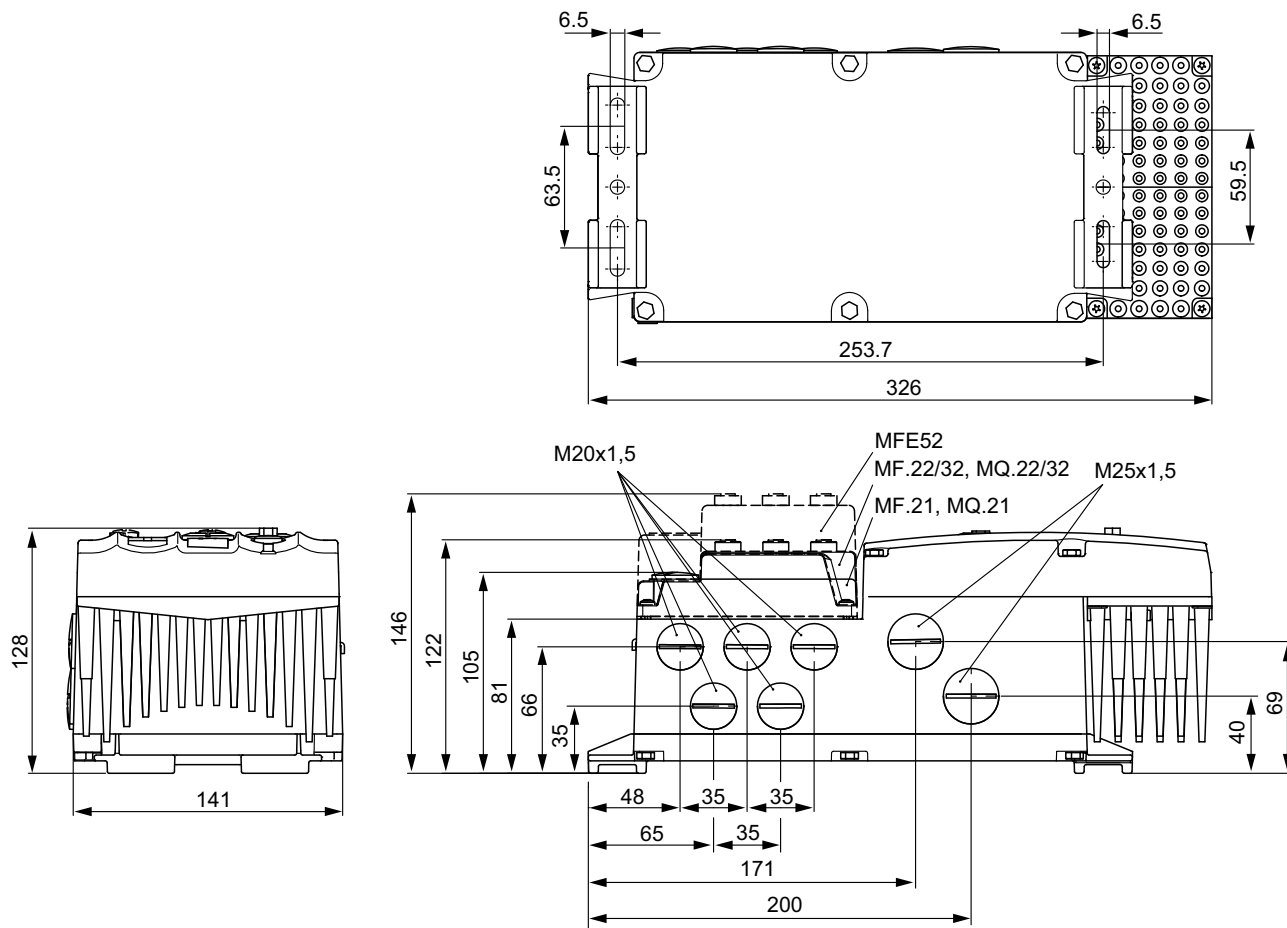
The following table shows the hybrid cables for connecting the motor to the field distributors MF../MM../Z.7. or MQ../MM../Z.7.:

Field distributors	Hybrid cable	Cable type	Drive
Z.7	Part number 0186 742 3  <i>Preferred type (preferred lengths 1.5/2/3/5 m) Preferred types with preferred lengths can usually be delivered at short notice</i>	A	AC motors with cable gland 
	Part number: 0593 076 6  <i>Preferred type (preferred lengths 1.5/2/3/5 m) Preferred types with preferred lengths can usually be delivered at short notice</i>	A	AC motors with ASB4 plug connector 
	Part number: 0593 278 5 (∧) Part number: 0816 325 1 (△) 	A	AC motors with plug connector ISU4  Size DR63
	Part number: 0593 755 8 (∧) Part number: 0816 326 X (△) 	A	AC motors with plug connector ISU4  Size DR.71-DR.132



5.5.7 Dimension drawing of field distributors MF../MM03 – MM15/Z.7., MQ../MM03 – MM15/Z.7.

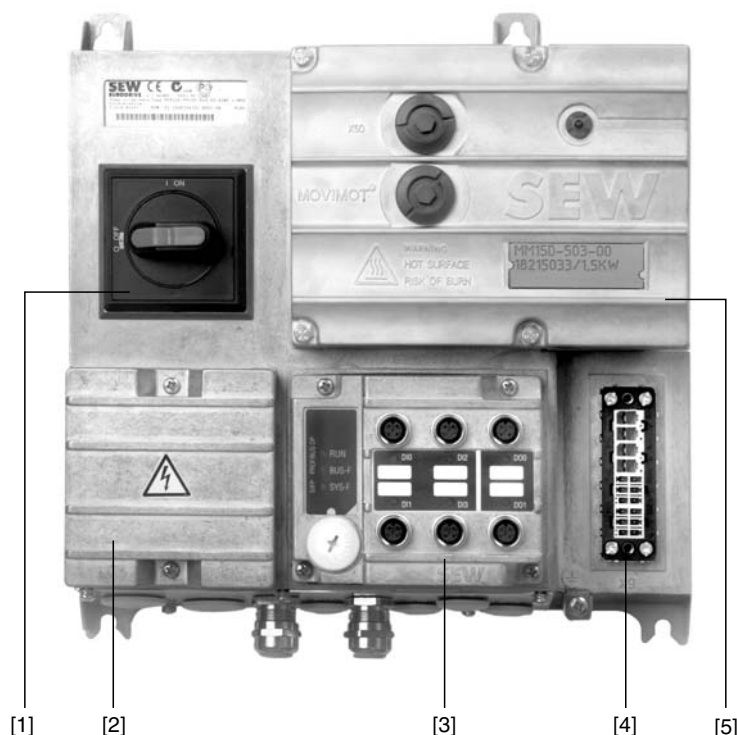
The following figure shows the dimensions of MF../MM03-MM15/Z.7., MQ../MM03-MM15/Z.7. field distributors:



9007200795295371

5.6 MF../MM../Z.8., MQ../MM../Z.8. field distributors

The following figure shows the MF../MM../Z.8., MQ../MM../Z.8. field distributor:



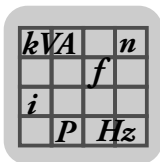
1482338315

- [1] Maintenance switch
- [2] Wiring space for power supply
- [3] MF../MQ.. fieldbus interface
- [4] Prefabricated cable connection
- [5] MOVIMOT® inverter (here: size 1)

5.6.1 Unit properties

The MF../MM../Z.8., MQ../MM../Z.8. field distributors have the following functional characteristics:

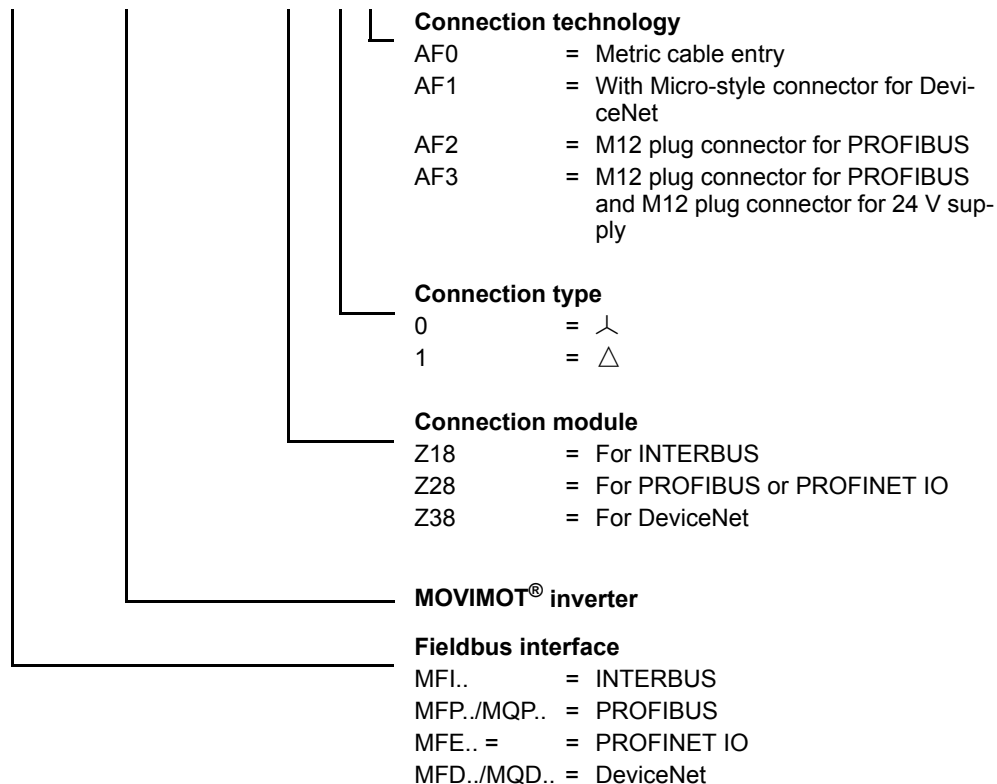
- Communication interface with I/Os
- Separate wiring space for bus and power terminals
- Pluggable connection to MOVIMOT® (via hybrid cable)
- Integrated MOVIMOT® inverter
- Maintenance switch (triple lock)
 - Made by ABB
 - Type OT16ET3HS3ST1
 - Color: black/red



5.6.2 Sample type designation

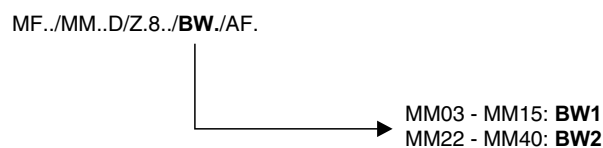
The following table shows the type designation of MF../MM../Z.8., MQ../MM../Z.8. field distributors:

MFP22D/MM22D-503-00/Z28F0/AF0¹⁾



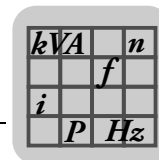
1) If the field distributor is used in combination with a drive without mechanical holding brake, then the field distributor must be ordered with integrated braking resistor (according to the following example).

Ordering of integrated braking resistor



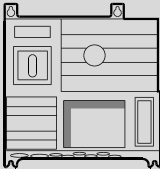
1482343691

For the regenerative load capacity of the braking resistors, refer to chapter "4Q operation with integrated BW.. braking resistor".



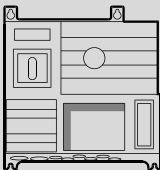
5.6.3 Possible combinations for MF../MM../Z.8.

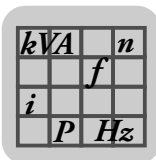
The following table shows the possible combinations of the MF../MM../Z.8. field distributor with fieldbus interfaces:

		4 x I / 2 x O (terminals) 	4 x I / 2 x O (M12) 	6 x I (M12) 
INTERBUS	↗	MFI21A/MM../D/Z18F 0/AF0	MFI22A/MM../D/Z18F 0/AF0	MFI32A/MM../D/Z18F 0/AF0
	△	MFI21A/MM../D/Z18F 1/AF0	MFI22A/MM../D/Z18F 1/AF0	MFI32A/MM../D/Z18F 1/AF0
INTERBUS with FO and Rugged Line	↗	-	MFI23F/MM../D/Z18F 0/AF0	MFI33F/MM../D/Z18F 0/AF0
	△	-	MFI23F/MM../D/Z18F 1/AF0	MFI33F/MM../D/Z18F 1/AF0
PROFIBUS	↗	MFP21D/MM../D/Z28F 0/AF0	MFP22D/MM../D/Z28F 0/AF0	MFP32D/MM../D/Z28F 0/AF0
	△	MFP21D/MM../D/Z28F 1/AF0	MFP22D/MM../D/Z28F 1/AF0	MFP32D/MM../D/Z28F 1/AF0
	↗	MFP21D/MM../D/Z28F 0/AF2	MFP22D/MM../D/Z28F 0/AF2	MFP32D/MM../D/Z28F 0/AF2
	△	MFP21D/MM../D/Z28F 1/AF2	MFP22D/MM../D/Z28F 1/AF2	MFP32D/MM../D/Z28F 1/AF2
	↗	MFP21D/MM../D/Z28F 0/AF3	MFP22D/MM../D/Z28F 0/AF3	MFP32D/MM../D/Z28F 0/AF3
	△	MFP21D/MM../D/Z28F 1/AF3	MFP22D/MM../D/Z28F 1/AF3	MFP32D/MM../D/Z28F 1/AF3
PROFINET IO	↗	-	MFE52A/MM../D/Z28F 0/AF0	
	△	-	MFE22A/MM../D/Z28F 1/AF0	
DeviceNet	↗	MFD21A/MM../D/Z38F 0/AF1	MFD22A/MM../D/Z38F 0/AF1	MFD32A/MM../D/Z38F 0/AF1
	△	MFD21A/MM../D/Z38F 1/AF1	MFD22A/MM../D/Z38F 1/AF1	MFD32A/MM../D/Z38F 1/AF1

5.6.4 Possible combinations for MQ../MM../Z.8.

The following table shows the possible combinations of the MQ../MM../Z.8. field distributor with fieldbus interfaces:

		4 x I / 2 x O (terminals) 	4 x I / 2 x O (M12) 	6 x I (M12) 
PROFIBUS	↗	MQP21D/MM../D/Z28F 0/AF0	MQP22D/MM../D/Z28F 0/AF0	MQP32D/MM../D/Z28F 0/AF0
	△	MQP21D/MM../D/Z28F 1/AF0	MQP22D/MM../D/Z28F 1/AF0	MQP32D/MM../D/Z28F 1/AF0
	↗	MQP21D/MM../D/Z28F 0/AF2	MQP22D/MM../D/Z28F 0/AF2	MQP32D/MM../D/Z28F 0/AF2
	△	MQP21D/MM../D/Z28F 1/AF2	MQP22D/MM../D/Z28F 1/AF2	MQP32D/MM../D/Z28F 1/AF2
	↗	MQP21D/MM../D/Z28F 0/AF3	MQP22D/MM../D/Z28F 0/AF3	MQP32D/MM../D/Z28F 0/AF3
	△	MQP21D/MM../D/Z28F 1/AF3	MQP22D/MM../D/Z28F 1/AF3	MQP32D/MM../D/Z28F 1/AF3
DeviceNet	↗	MQD21A/MM../D/Z38F 0/AF1	MQD22A/MM../D/Z38F 0/AF1	MQD32A/MM../D/Z38F 0/AF1
	△	MQD21A/MM../D/Z38F 1/AF1	MQD22A/MM../D/Z38F 1/AF1	MQD32A/MM../D/Z38F 1/AF1

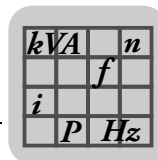


5.6.5 Assignment of motors to MF../MM../Z.8., MQ../MM../Z.8. field distributors

Motor requirements

The following table lists the basic requirements and restrictions for assigned motors. Observe these specifications when ordering the drives assigned to the field distributors:

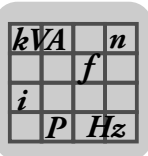
Integral characteristics	Requirements for the assigned AC motor		
Permitted motors	The permitted motors are listed in chapter "Motor assignment (1400 rpm)" (page 221) and "Motor assignment (2900 rpm)" (page 222).		
Permitted nominal motor voltage	Depending on motor series:		
	Motor [Type]	Nominal voltage [V]	Line frequency [Hz]
	DRS	230/400	50
	DRE	230/400	50
	DRS/DRE	230/400	50
Permitted brakes	Depending on motor series:		
	Motor [Type]	Standard brake [Type]	Optional brake [Type]
	DR63L4	BR03	–
	DR.71S4	BE05	BE1
	DR.71M4	BE1	BE05
	DR.80S4	BE1	BE05
	DRS80M4	BE2	BE1
	DRE80M4	BE1	BE05
	DRS90M4	BE2	BE1
	DRE90M4	BE2	BE1
	DRS90L4	BE5	BE2
	DRE90L4	BE2	BE1
	DRS100M4	BE5	BE2
	DRE100M4	BE5	BE2
	DR.100L4	BE5	BE2
	DR.132S4	BE5	BE11
Preferred brake voltage	MM..D-503, size 1 (MM03.. – MM15..)		230 V
	MM..D-503, size 2 (MM22.. – MM40..)		120 V
Brake rectifier	Always order the assigned motor without brake rectifier .		
Permitted plug connectors	- ASB4 plug connector - ISU4 plug connector For additional information, refer to section "Hybrid cables for connecting Z.8 field distributor and motors" (page 223).		
Permitted motor protection	SEW-EURODRIVE recommends to always order the motor with TH thermostat (bimetallic switch). Motor protection can also be implemented in the Expert mode of the MOVIMOT® inverter.		
Permitted encoder system	EI76 incremental encoder (can be evaluated only via fieldbus interface with integrated MQ.. minicontroller).		



Motor assignment 1400 rpm

Power rating [kW]	Motor (230 / 400 V, 50 Hz) ⏏	Field distributors	
		With MF.. fieldbus interface	With MQ.. fieldbus interface
0.25	DFR63L4/TH	MF../MM03D / Z.8F 0 / BW1 / AF.. ¹⁾	MQ../MM03D / Z.8F 0 / BW1 / AF.. ¹⁾
	DFR63L4/BR/TH.	MF../MM03D / Z.8F 0 / AF.. ¹⁾	MQ../MM03D / Z.8F 0 / AF.. ¹⁾
0.37	DRS71S4/TH.	MF../MM03D / Z.8F 0 / BW1 / AF..	MQ../MM03D / Z.8F 0 / BW1 / AF..
	DRE80S4/TH.	MF../MM05D / Z.8F 0 / BW1 / AF.. ¹⁾	MQ../MM05D / Z.8F 0 / BW1 / AF.. ¹⁾
	DRS71S4/BE/TH.	MF../MM03D / Z.8F 0 / AF..	MQ../MM03D / Z.8F 0 / AF..
	DRE80S4/BE/TH.	MF../MM05D / Z.8F 0 / AF.. ¹⁾	MQ../MM05D / Z.8F 0 / AF.. ¹⁾
0.55	DRS71M4/TH.	MF../MM05D / Z.8F 0 / BW1 / AF..	MQ../MM05D / Z.8F 0 / BW1 / AF..
	DRE80M4/TH.	MF../MM07D / Z.8F 0 / BW1 / AF.. ¹⁾	MQ../MM07D / Z.8F 0 / BW1 / AF.. ¹⁾
	DRS71M4/BE/TH.	MF../MM05D / Z.8F 0 / AF..	MQ../MM05D / Z.8F 0 / AF..
	DRE80M4/BE/TH.	MF../MM07D / Z.8F 0 / AF.. ¹⁾	MQ../MM07D / Z.8F 0 / AF.. ¹⁾
0.75	DRE80M4/TH.	MF../MM07D / Z.8F 0 / BW1 / AF..	MQ../MM07D / Z.8F 0 / BW1 / AF..
	DRE80M4/BE/TH.	MF../MM11D / Z.8F 0 / BW1 / AF.. ¹⁾	MQ../MM11D / Z.8F 0 / BW1 / AF.. ¹⁾
1.1	DRE90M4/TH.	MF../MM11D / Z.8F 0 / BW1 / AF..	MQ../MM11D / Z.8F 0 / BW1 / AF..
	DRE90M4/BE/TH.	MF../MM15D / Z.8F 0 / BW1 / AF.. ¹⁾	MQ../MM15D / Z.8F 0 / BW1 / AF.. ¹⁾
1.5	DRE90L4/TH.	MF../MM11D / Z.8F 0 / AF..	MQ../MM11D / Z.8F 0 / AF..
	DRE90L4/BE/TH.	MF../MM15D / Z.8F 0 / AF.. ¹⁾	MQ../MM15D / Z.8F 0 / AF.. ¹⁾
2.2	DRE100M4/TH.	MF../MM15D / Z.8F 0 / BW1 / AF..	MQ../MM15D / Z.8F 0 / BW1 / AF..
	DRE100M4/BE/TH.	MF../MM22D / Z.8F 0 / BW2 / AF.. ¹⁾	MQ../MM22D / Z.8F 0 / BW2 / AF.. ¹⁾
3	DRE100M4/TH.	MF../MM22D / Z.8F 0 / BW2 / AF.. ¹⁾	MQ../MM22D / Z.8F 0 / BW2 / AF.. ¹⁾
	DRE100M4/BE/TH.	MF../MM30D / Z.8F 0 / BW2 / AF.. ¹⁾	MQ../MM30D / Z.8F 0 / BW2 / AF.. ¹⁾
4	DRE100LC4/TH.	MF../MM30D / Z.8F 0 / BW2 / AF..	MQ../MM30D / Z.8F 0 / BW2 / AF..
	DRE100LC4/BE/TH.	MF../MM40D / Z.8F 0 / BW2 / AF.. ¹⁾	MQ../MM40D / Z.8F 0 / BW2 / AF.. ¹⁾
4	DRE132S4/TH.	MF../MM30D / Z.8F 0 / AF..	MQ../MM30D / Z.8F 0 / AF..
	DRE132S4/BE/TH.	MF../MM40D / Z.8F 0 / AF.. ¹⁾	MQ../MM40D / Z.8F 0 / AF.. ¹⁾

1) Combination with increased short-term torque



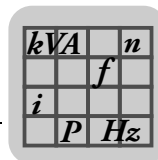
Fieldbus Interfaces and Field Distributors

MF../MM../Z.8., MQ../MM../Z.8. field distributors

Motor assignment 2900 rpm

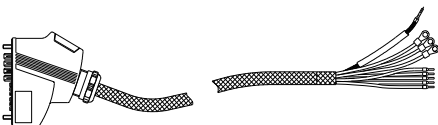
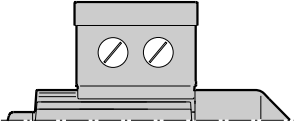
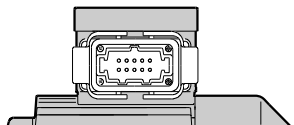
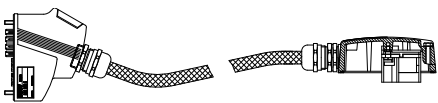
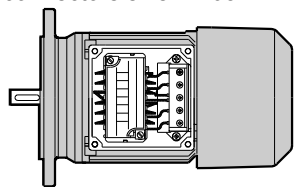
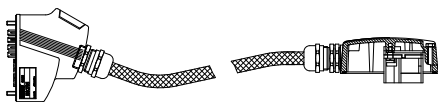
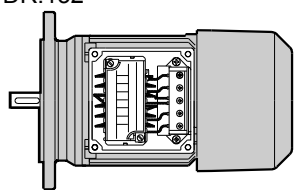
Power rating [kW]	Motor (230 / 400 V, 50 Hz) △	Field distributors	
		With MF.. fieldbus interface	With MQ.. fieldbus interface
0.37	DFR63L4/TH. DRE80S4/TH.	MF../MM03D / Z.8F 1 / BW1 / AF.. MF../MM05D / Z.8F 1 / BW1 / AF.. ¹⁾	MQ../MM03D / Z.8F 1 / BW1 / AF.. MQ../MM05D / Z.8F 1 / BW1 / AF.. ¹⁾
	DFR63L4/BR/TH. DRE80S4/BE/TH.	MF../MM03D / Z.8F 1 / AF.. MF../MM05D / Z.8F 1 / AF.. ¹⁾	MQ../MM03D / Z.8F 1 / AF.. MQ../MM05D / Z.8F 1 / AF.. ¹⁾
0.55	DRS71S4/TH. DRE80S4/TH.	MF../MM05D / Z.8F 1 / BW1 / AF.. MF../MM07D / Z.8F 1 / BW1 / AF.. ¹⁾	MQ../MM05D / Z.8F 1 / BW1 / AF.. MQ../MM07D / Z.8F 1 / BW1 / AF.. ¹⁾
	DRS71S4/BE/TH. DRE80S4/BE/TH.	MF../MM05D / Z.8F 1 / AF.. MF../MM07D / Z.8F 1 / AF.. ¹⁾	MQ../MM05D / Z.8F 1 / AF.. MQ../MM07D / Z.8F 1 / AF.. ¹⁾
0.75	DRS71M4/TH. DRE80M4/TH.	MF../MM07D / Z.8F 1 / BW1 / AF.. MF../MM11D / Z.8F 1 / BW1 / AF.. ¹⁾	MQ../MM07D / Z.8F 1 / BW1 / AF.. MQ../MM11D / Z.8F 1 / BW1 / AF.. ¹⁾
	DRS71M4/BE/TH. DRE80M4/BE/TH.	MF../MM07D / Z.8F 1 / AF.. MF../MM11D / Z.8F 1 / AF.. ¹⁾	MQ../MM07D / Z.8F 1 / AF.. MQ../MM11D / Z.8F 1 / AF.. ¹⁾
1.1	DRE80M4/TH.	MF../MM11D / Z.8F 1 / BW1 / AF.. MF../MM15D / Z.8F 1 / BW1 / AF.. ¹⁾	MQ../MM11D / Z.8F 1 / BW1 / AF.. MQ../MM15D / Z.8F 1 / BW1 / AF.. ¹⁾
	DRE80M4/BE/TH.	MF../MM11D / Z.8F 1 / AF.. MF../MM15D / Z.8F 1 / AF.. ¹⁾	MQ../MM11D / Z.8F 1 / AF.. MQ../MM15D / Z.8F 1 / AF.. ¹⁾
1.5	DRE90M4/TH.	MF../MM15D / Z.8F 1 / BW1 / AF.. MF../MM22D / Z.8F 1 / BW2 / AF.. ¹⁾	MQ../MM15D / Z.8F 1 / BW1 / AF.. MQ../MM22D / Z.8F 1 / BW2 / AF.. ¹⁾
	DRE90M4/BE/TH.	MF../MM15D / Z.8F 1 / AF.. MF../MM22D / Z.8F 1 / AF.. ¹⁾	MQ../MM15D / Z.8F 1 / AF.. MQ../MM22D / Z.8F 1 / AF.. ¹⁾
2.2	DRE90L4/TH.	MF../MM22D / Z.8F 1 / BW2 / AF.. MF../MM30D / Z.8F 1 / BW2 / AF.. ¹⁾	MQ../MM22D / Z.8F 1 / BW2 / AF.. MQ../MM30D / Z.8F 1 / BW2 / AF.. ¹⁾
	DRE90L4/BE/TH.	MF../MM22D / Z.8F 1 / AF.. MF../MM30D / Z.8F 1 / AF.. ¹⁾	MQ../MM22D / Z.8F 1 / AF.. MQ../MM30D / Z.8F 1 / AF.. ¹⁾
3	DRE100M4/TH.	MF../MM30D / Z.8F 1 / BW2 / AF.. MF../MM40D / Z.8F 1 / BW2 / AF.. ¹⁾	MQ../MM30D / Z.8F 1 / BW2 / AF.. MQ../MM40D / Z.8F 1 / BW2 / AF.. ¹⁾
	DRE100M4/BE/TH.	MF../MM30D / Z.8F 1 / AF.. MF../MM40D / Z.8F 1 / AF.. ¹⁾	MQ../MM30D / Z.8F 1 / AF.. MQ../MM40D / Z.8F 1 / AF.. ¹⁾
4	DRE100LC4/TH.	MF../MM40D / Z.8F 1 / BW2 / AF..	MQ../MM40D / Z.8F 1 / BW2 / AF..
	DRE100LC4/BE/TH.	MF../MM40D / Z.8F 1 / AF..	MQ../MM40D / Z.8F 1 / AF..

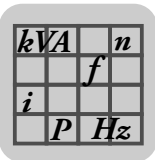
1) Combination with increased short-term torque



5.6.6 Hybrid cables for connecting Z.8 field distributors and motors

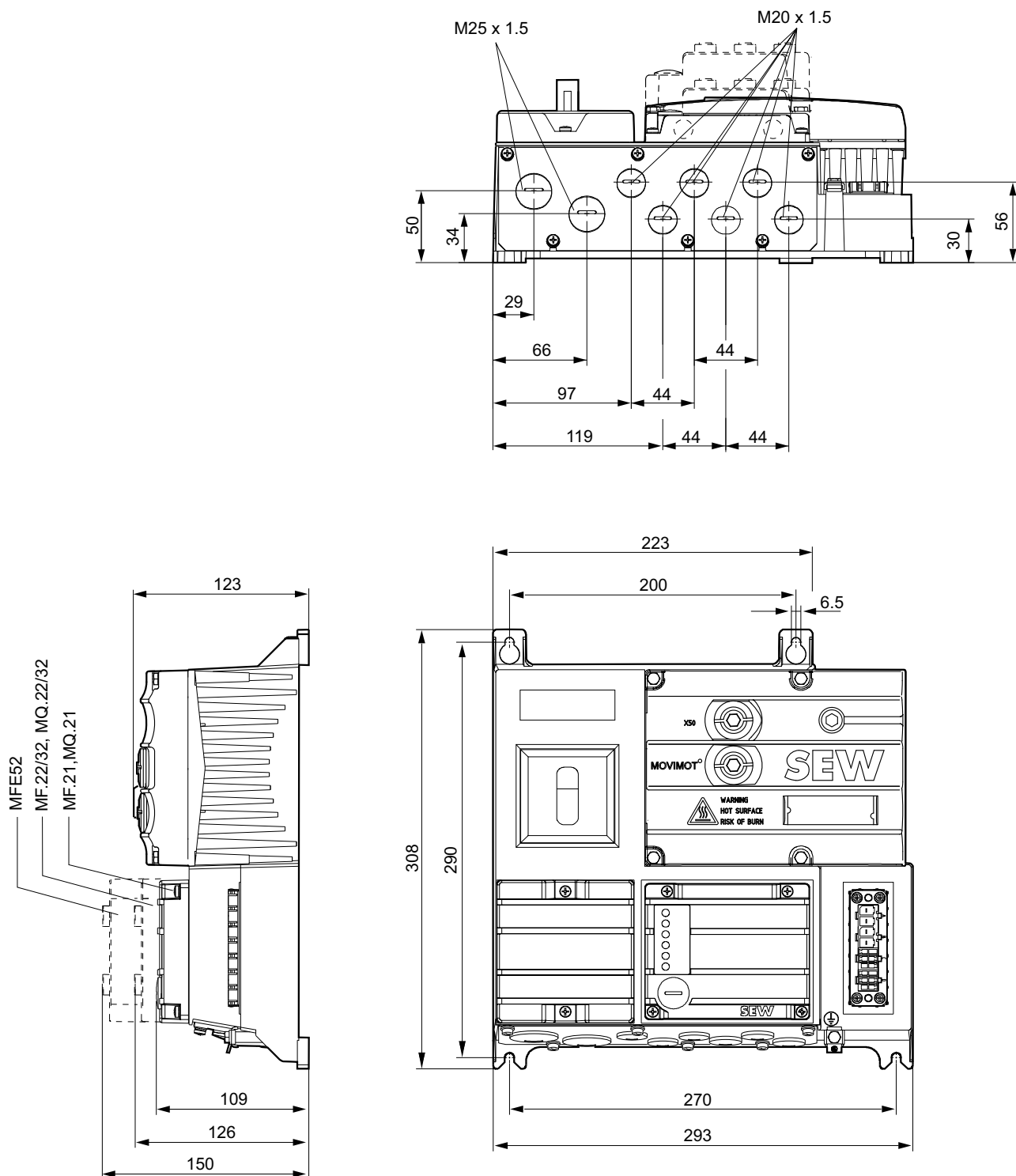
The following table shows the hybrid cables for connecting the motor to the field distributors MF../MM../Z.8. or MQ../MM../Z.8.:

Field distributors	Hybrid cable	Cable type	Drive
Z.8	Part number 0186 742 3  <i>Preferred type (preferred lengths 1.5/2/3/5 m) Preferred types with preferred lengths can usually be delivered at short notice</i>	A	AC motors with cable gland 
	Part number: 0593 076 6  <i>Preferred type (preferred lengths 1.5/2/3/5 m) Preferred types with preferred lengths can usually be delivered at short notice</i>	A	AC motors with ASB4 plug connector 
	Part number: 0593 278 5 (∟) Part number: 0816 325 1 (△) 	A	AC motors with ISU4 plug connectors size DR63 
	Part number: 0593 755 8 (∟) Part number: 0816 326 X (△) 	A	AC motors with ISU4 plug connectors size DR.71-DR.132 



5.6.7 Dimension drawing of field distributors MF../MM03 – MM15/Z.8., MQ../MM03 – MM15/Z.8.

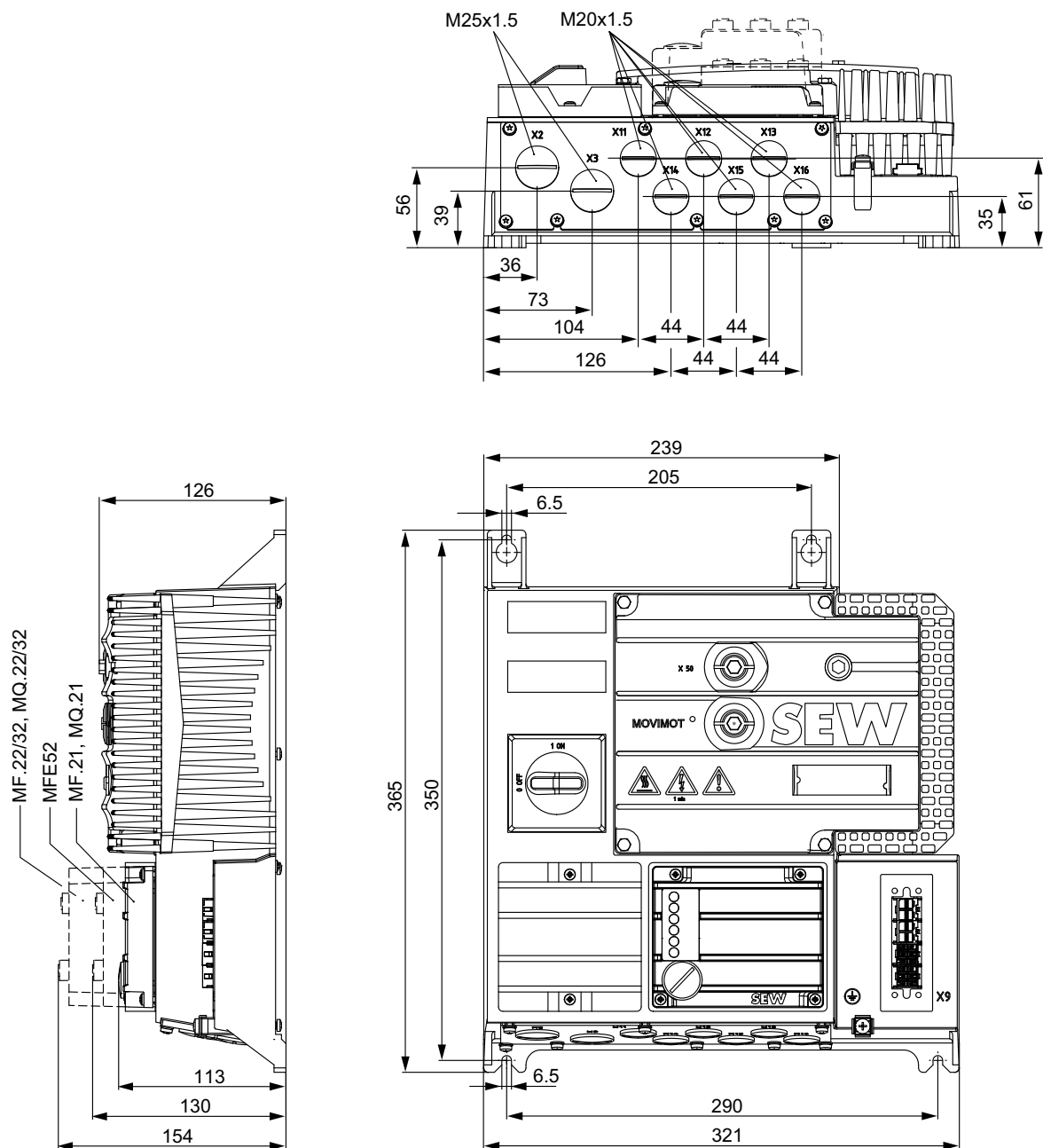
The following figure shows the dimensions of the field distributors MF../MM03 – MM15/Z.8., MQ../MM03 – MM15/Z.8.:



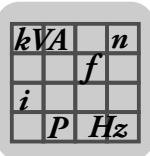
9007200797576843

5.6.8 Dimension drawing of field distributors MF../MM22 – MM30/Z.8., MQ../MM22 – MM30/Z.8.

The following figure shows the dimensions of the field distributors MF../MM22 – MM30/Z.8., MQ../MM22 – MM30/Z.8.:

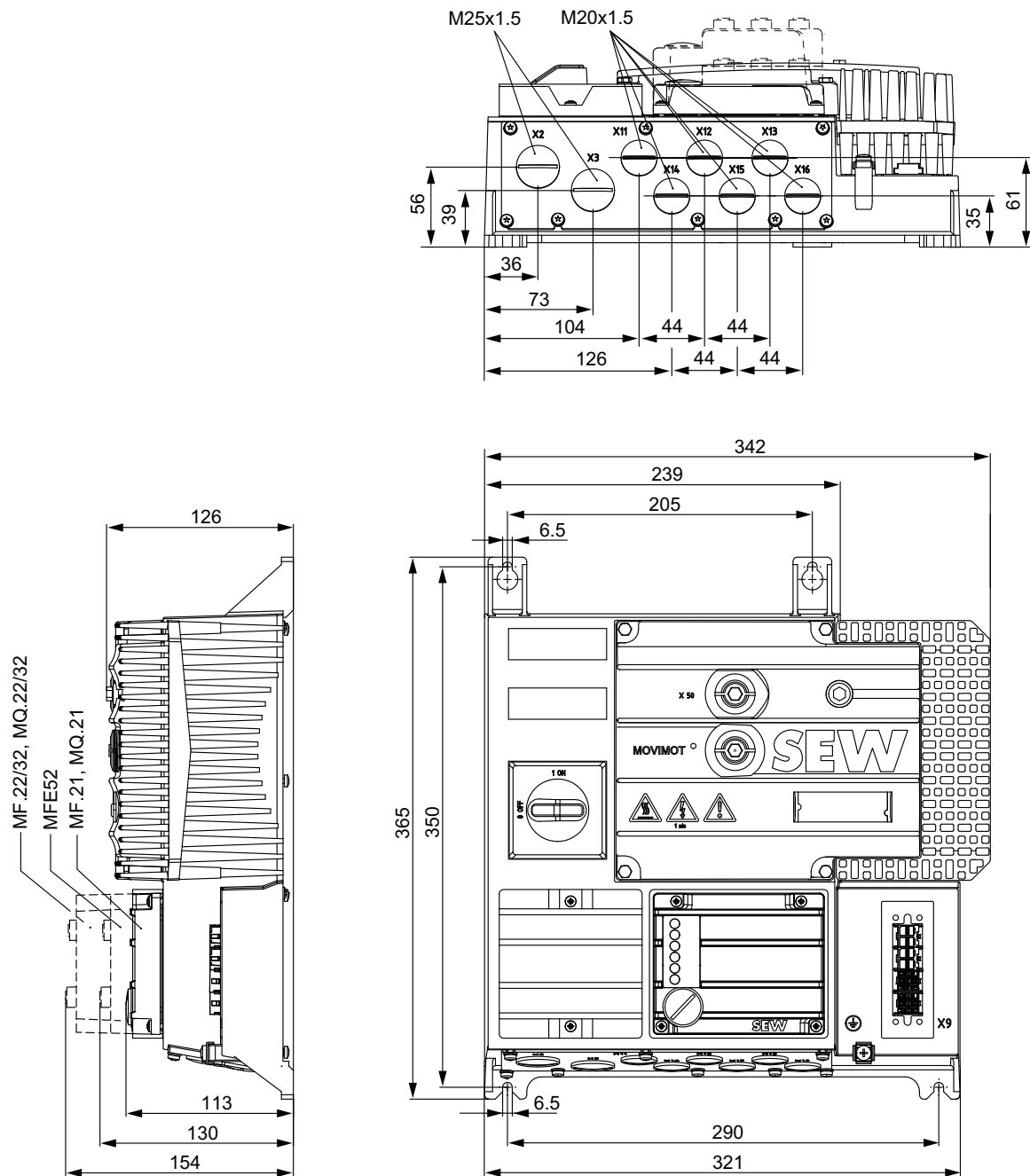


9007200797578763

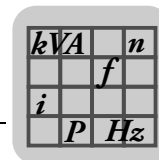


5.6.9 MF../MM40/Z.8., MQ../MM40/Z.8. field distributors – dimension drawing

The following figure shows the dimensions of the field distributors MF../MM40/Z.8., MQ../MM40/Z.8.:



9007200940495371



5.7 Functional safety

5.7.1 Order information



INFORMATION



- The SafetyDrive design must be ordered explicitly.
- "SafetyDrive" must be specified in the order if functional safety (STO) is required and permitted for this combination.
- Use only those components in safety applications that were designed and delivered for this purpose by SEW-EURODRIVE and that are marked with the Functional Safety logo.

5.7.2 Permitted SafetyDrive designs

Only the following unit combinations with MOVIMOT® MM..DD are permitted in applications with safe disconnection of the drive (STO) up to performance level d according to EN ISO 13849-1 and SIL 2 according to IEC 61800-5-2.

For additional information on the safety function and the safety-related requirements, refer to the "MOVIMOT® MM..DD – Functional Safety" manual.

- MOVIMOT® with MFZ.6 field distributor. (Connection via pre-fabricated cable). The following combinations are permitted:

MF../Z.6./A..

MQ../Z.6./A..

Connection technology:

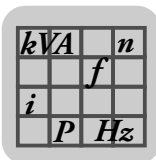
AF0 only permitted with Z16F, Z26F
AF1 only permitted with Z36F
AF2, AF3 only permitted with Z26F

Connection module:

Z16F, Z26F, Z36F

Fieldbus interface:

MF121A, 22A, 32A	Only permitted
MF123F, 33F	With Z16F
MFP21D, 22D, 32D	Only permitted
MQP21D, 22D, 32D	With Z36F
MFE52A	
MFD21A, 22A, 32A	Only permitted
MQD21A, 22A, 32A	With Z36F



- MOVIMOT® frequency inverter integrated in the MFZ.7 field distributor. (Connection of the AC motor via pre-fabricated cable). The following combinations are permitted:

MF../MM../Z.7.

MQ../MM../Z.7.

Connection module:

Z17F, Z27F, Z37F

MOVIMOT® inverter:

MM03D – MM15D

Fieldbus interface:

MFI21A, 22A, 32A	Only permitted
MFI23F, 33F	with Z17F

MFP21D, 22D, 32D	Only permitted
MQP21D, 22D, 32D	with Z27F

MFE52A	
MFD21A, 22A, 32A	Only permitted
MQD21A, 22A, 32A	with Z37F

MFO21A, 22A, 32A

- MOVIMOT® frequency inverter integrated in the MFZ.8 field distributor. (Connection of the AC motor via pre-fabricated cable). The following combinations are permitted:

MF../MM../Z.8./A..

MQ../MM../Z.8./A..

Connection technology:

AF0	Only permitted with Z18F, Z28F
-----	--------------------------------

AF1	Only permitted with Z38F, Z38G
-----	--------------------------------

AF2, AF3	Only permitted with Z28F
----------	--------------------------

Connection module:

Z18F, Z28F, Z38F

MOVIMOT® inverter:

MM03D – MM40D

Fieldbus interface:

MFI21A, 22A, 32A	Only permitted
MFI23F, 33F	With Z18F

MFP21D, 22D, 32D	Only permitted
MQP21D, 22D, 32D	With Z36F

MFE52A	
MFD21A, 22A, 32A	Only permitted
MQD21A, 22A, 32A	With Z38F