

6 Fieldbus Interfaces and Field Distributors

6.1 Description of functions

6.1.1 Fieldbus interfaces MF.. / MQ.. for MOVIMOT®

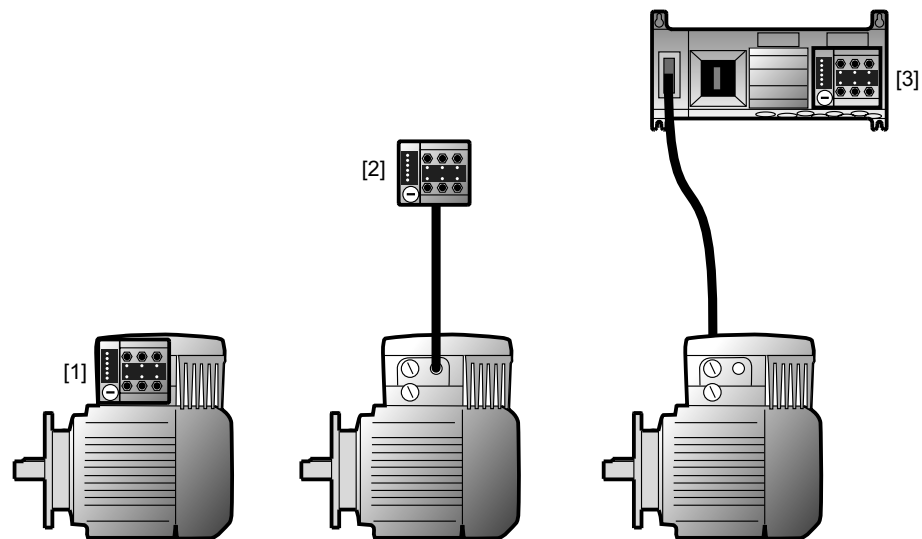
Type MF.. fieldbus interfaces allow for connecting MOVIMOT® and MOVI-SWITCH® drives to a standardized fieldbus system. These fieldbus interfaces not only allow for controlling MOVIMOT® and MOVI-SWITCH® drives but also for reading sensor signals as well as controlling actuators via the digital input and output terminals. The degree of protection for all fieldbus interfaces and field distributors is IP65 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 NV26 or ES16 proximity sensors
- Integrated I/O preprocessing and timing elements
- Protocol modification

Mounting variants

The following illustration shows the different installation options of the fieldbus interfaces MF.. / MQ..:



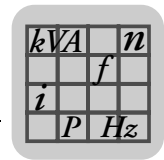
52693AXX

- [1] Mounting on the drive
 [2] Mounting in the field
 [3] Mounting in the field distributor

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.



6.1.2 PROFIsafe field distributors

Brief description The PROFIsafe MQS.2F/Z2.F field distributors provide a connection between MOVIMOT® drives and the safety-oriented communication system PROFIsafe.

The MQS22F type fieldbus interface contains four standard binary inputs and two standard binary outputs. The MQS32F type fieldbus interface contains six standard binary inputs and no standard binary outputs.

The PROFIsafe MQS.2F interface also has a safety-oriented binary output and two safety-oriented binary inputs. The safe binary output can be used in conjunction with a safety controller to implement the "Safe stop" function of the MOVIMOT® drive via PROFIsafe.

Unit designations Unit designations for the PROFIsafe interfaces MQS:

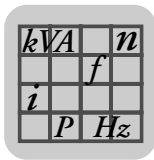
- **MQS22F** 4DI / 2DO (via M12 plug connectors) + 2F-DI / 1F-DO (2-pole)
- **MQS32F** 6DI / 0DO (via M12 plug connectors) + 2F-DI / 1F-DO (2-pole)

Permitted PROFIsafe field distributor combinations in conjunction with MOVIMOT® for applications with safe disconnection of the drive according to stop category 0 or 1 to EN 60204-1 and fail-safe protection against restart to EN 954-1, category 3 are:

Permitted field distributor combinations		
Z.6 field distributor	MQS22F / Z26F / AF0 MQS22F / Z26F / AF2 MQS22F / Z26F / AF3	MQS32F / Z26F / AF0 MQS32F / Z26F / AF2 MQS32F / Z26F / AF3
Z.7 Field distributor	MQS22F / MM... / Z27F . MQS22F / MM... / Z27F . / AVT2/AWT2	MQS32F / MM... / Z27F . MQS32F / MM... / Z27F . / AVT2/AWT2
Z.8 field distributor	MQS22F / MM... / Z28F . / AF0 MQS22F / MM... / Z28F . / AF2 MQS22F / MM... / Z28F . / AF3	MQS32F / MM... / Z28F . / AF0 MQS32F / MM... / Z28F . / AF2 MQS32F / MM... / Z28F . / AF3

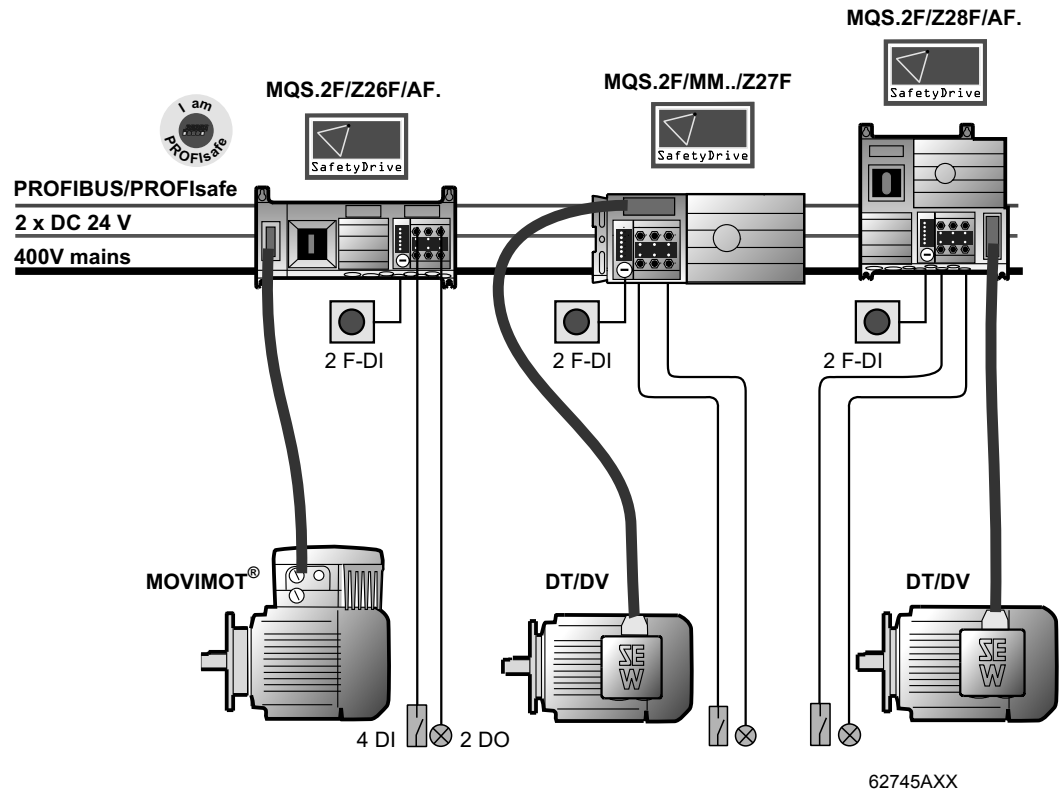
Not permitted are:

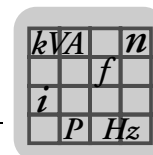
- Combinations with Z.1 field distributor
- Combinations with Z.3 field distributor
- Variants without M12



Overview

The following overview lists the possible field distributor variants in conjunction with the PROFIsafe MQS interface. Control of the "Safe stop" with MOVIMOT® is realized by the PROFIsafe field distributor via the standard PROFIBUS installation. The 24 V supply of the MOVIMOT® drive is then switched off via the safe binary output (wired internally).





6.1.3 MOVI-SWITCH® on the fieldbus and energy bus

MOVI-SWITCH®

MOVI-SWITCH® is a compact and heavy-duty gearmotor for power ratings up to 3 kW with integrated switching and protection function. Versions are available with an electronic star bridge connector for one direction of rotation, or with a reversing starter with contact.

The drive is switched on/off using DC 24 V control signals if the supply voltage is permanently connected. Usually, the control transfers these signals to decentralized I/O components via fieldbus communication.

A thermal winding monitoring function with evaluation and brake management is integrated into the drive unit so that the number of required I/O points is kept to a minimum.

MF.. fieldbus interfaces

SEW-EURODRIVE fieldbus interfaces support communication via all commercial fieldbus interfaces. PROFIBUS, InterBus, CANopen, DeviceNet and AS-Interface are available.

The fieldbus interfaces are based on a module terminal box with connecting terminals and a plug-in fieldbus module. These interfaces can be installed directly onto MOVI-SWITCH® or they can be mounted separately.

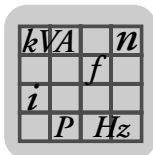
The MOVI-SWITCH® gearmotors are connected to the bus using terminals; additional sensors or actuators can be connected to the bus either using terminals or plugs, depending on the configuration.

MF../Z.3W, MF../Z26W.. field distributors

MF../Z.3W, and MF../Z26W.. field distributors have been specifically designed for connecting MOVI-SWITCH®. They provide an efficient means of connecting the drives to the supply system, the DC 24 V control voltage and the fieldbus.

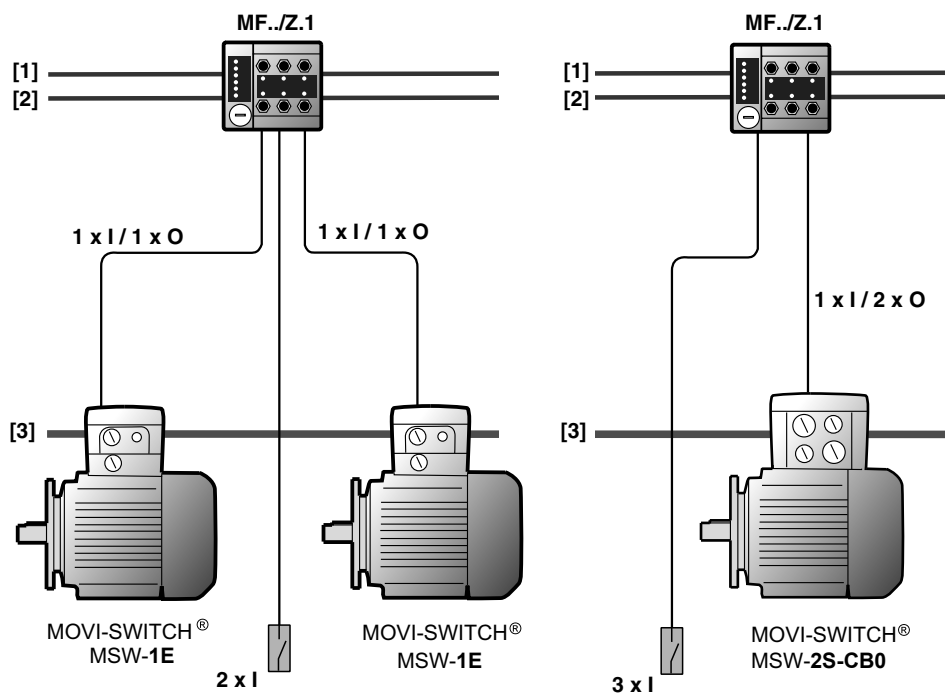
The units are based on the bus interfaces technology with additional connection technology for supply system distribution. Mounting the field distributors close to the motor simplifies decentralized installation.

SEW-EURODRIVE offers the matching hybrid cables to complete the system. The hybrid cable for connecting MOVI-SWITCH® units to field distributors combines the communications interface, supply and control voltage connections in one cable and is supplied as a pre-fabricated cable with a plug-in connection.

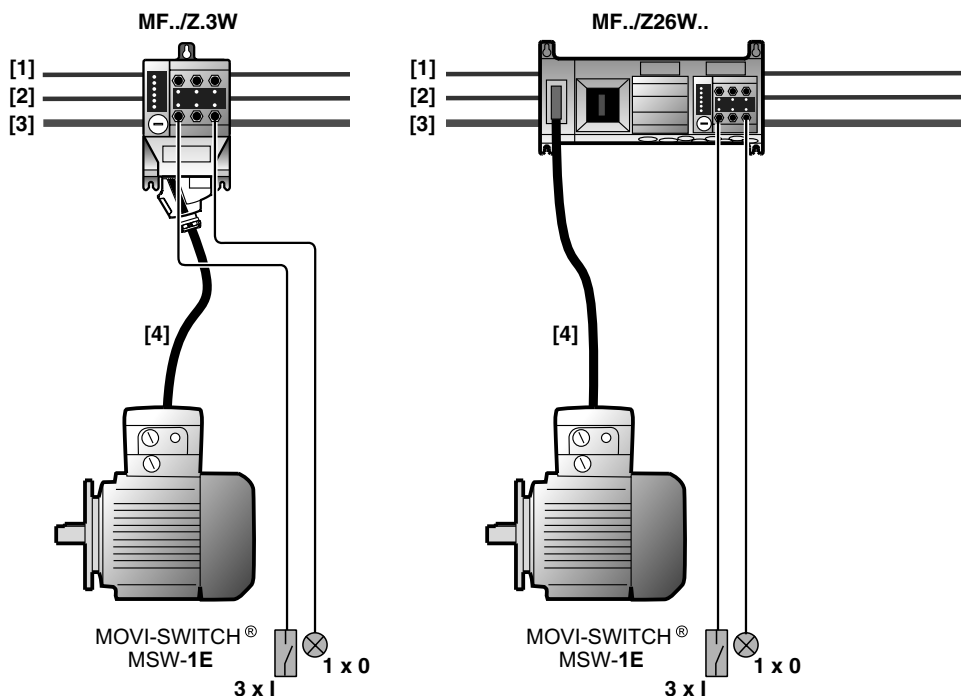


Examples

The following figures show installation examples with MOVI-SWITCH® and fieldbus interfaces/field distributors:



60428AXX

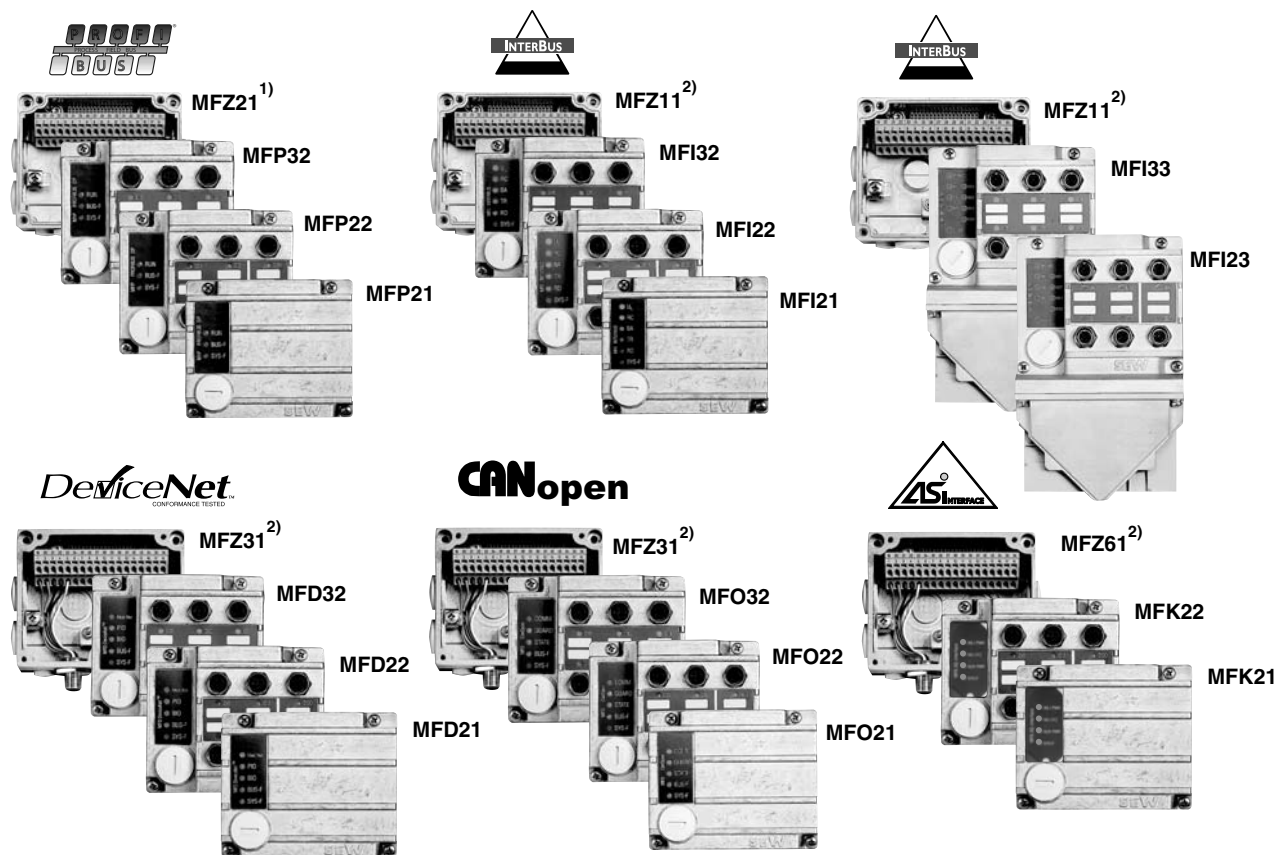


60429AXX

- [1] Communication
- [2] 24 V supply
- [3] Mains
- [4] Hybrid cable

6.2 Fieldbus interfaces

6.2.1 MF../Z.1 fieldbus interfaces



52512AXX

- 1 Red terminal imprint
2 Black terminal imprint

Variants

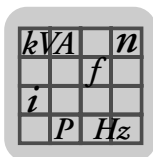


Module type	MFP21D	MFP22D	MFP32D
Part number	823 624 0	823 625 9	823 626 7
Connection technology	Terminals	M12 and terminals	M12 and terminals
Sensors / actuators			
Digital inputs	4	4	6
Digital outputs	2	2	0
Associated module terminal box	MFZ21D		MFZ21D/AVT2/AWT2
Part number	823 627 5		824 299 2
Fieldbus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

Variants



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			
Digital inputs	4	4	6
Digital outputs	2	2	0
Associated module terminal box	MFZ11A		
Part number	823 514 7		
Fieldbus connection technology	Terminals		
Module + module carrier	MFI21A/Z11A	MFI22A/Z11A	MFI32A/Z11A



Fieldbus Interfaces and Field Distributors

Fieldbus interfaces

Variants



With fiber optic cable and Rugged Line connector (Phoenix Contact)

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

Variants



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			
Digital inputs	4	4	6
Digital outputs	2	2	0
Associated module terminal box	MFZ31A		
Part number	823 548 1		
Fieldbus connection technology	Micro-style connector		
Module + module carrier	MFD21A/Z31A	MFD22A/Z31A	MFD32A/Z31A

Variants

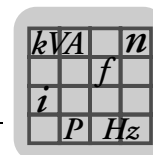


Module type	MFO21A	MFO22A	MFO32A
Part number	823 957 6	823 958 4	823 959 2
Connection technology	Terminals	M12 and terminals	M12 and terminals
Sensors / actuators			
Digital inputs	4	4	6
Digital outputs	2	2	0
Associated module terminal box	MFZ31A		
Part number	823 548 1		
Fieldbus connection technology	M12 plug connector		
Module + module carrier	MFO21A/Z31A	MFO22A/Z31A	MFO32A/Z31A

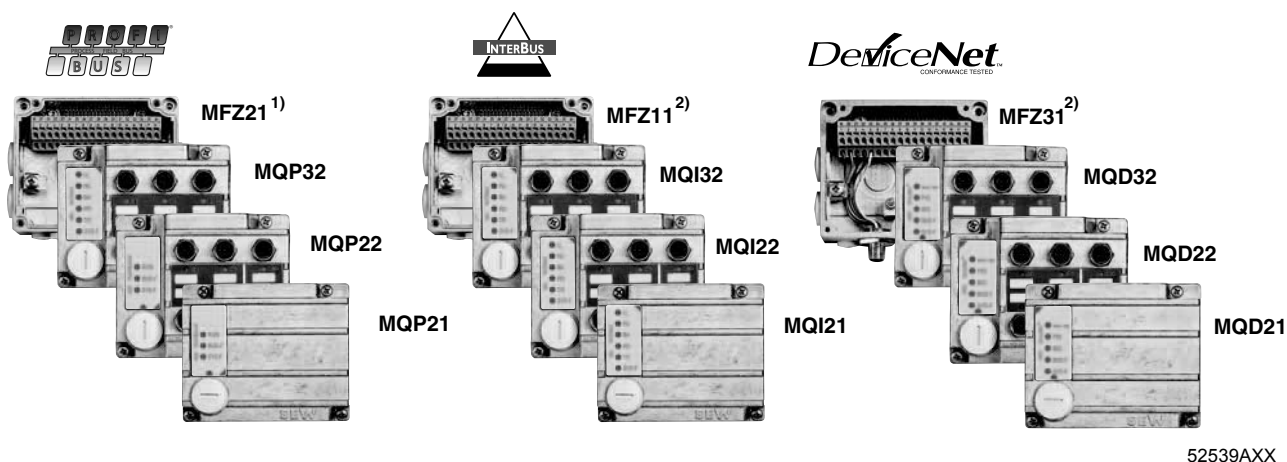
Variants



Module type	MFZ21A	MFZ22A
Part number	824 537 1	824 539 8
Connection technology	Terminals	M12 and terminals
Sensors / actuators		
Digital inputs	4	4
Digital outputs	2	2
Associated module terminal box	MFZ61A	
Part number	824 574 6	
Connection technology AS-Interface	M12 plug connector	
Module + module carrier	MFZ21A/Z61A	MFZ22A/Z61A



6.2.2 MQ../Z.1 fieldbus interfaces



- 1 Red terminal imprint
2 Black terminal imprint

Variants



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			
Digital inputs	4	4	6
Digital outputs	2	2	0
Associated module terminal box	MFZ21D		
Part number	823 627 5		
Fieldbus connection technology	Terminals		
Module + module carrier	MQP21D/Z21D..	MQP22D/Z21D..	MQP32D/Z21D..

Variants

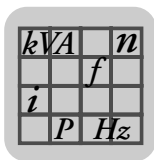


Module type	MQI21A	MQI22A	MQI32A
Part number	824 203 8	824 204 6	824 205 4
Connection technology	Terminals	M12 and terminals	M12 and terminals
Sensors / actuators			
Digital inputs	4	4	6
Digital outputs	2	2	0
Associated module terminal box	MFZ11A		
Part number	823 514 7		
Fieldbus connection technology	Terminals		
Module + module carrier	MQI21A/Z11A	MQI22A/Z11A	MQI32A/Z11A

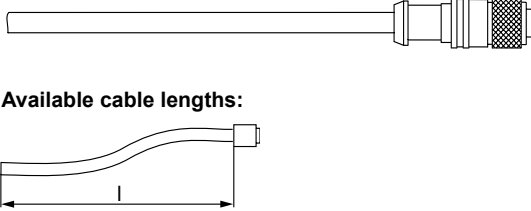
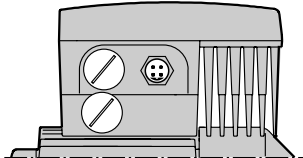
Variants



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			
Digital inputs	4	4	6
Digital outputs	2	2	0
Associated module terminal box	MFZ31A		
Part number	823 548 1		
Fieldbus connection technology	Micro-style connector		
Module + module carrier	MQD21A/Z31A	MQD22A/Z31A	MQD32A/Z31A



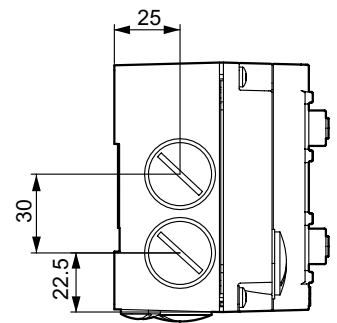
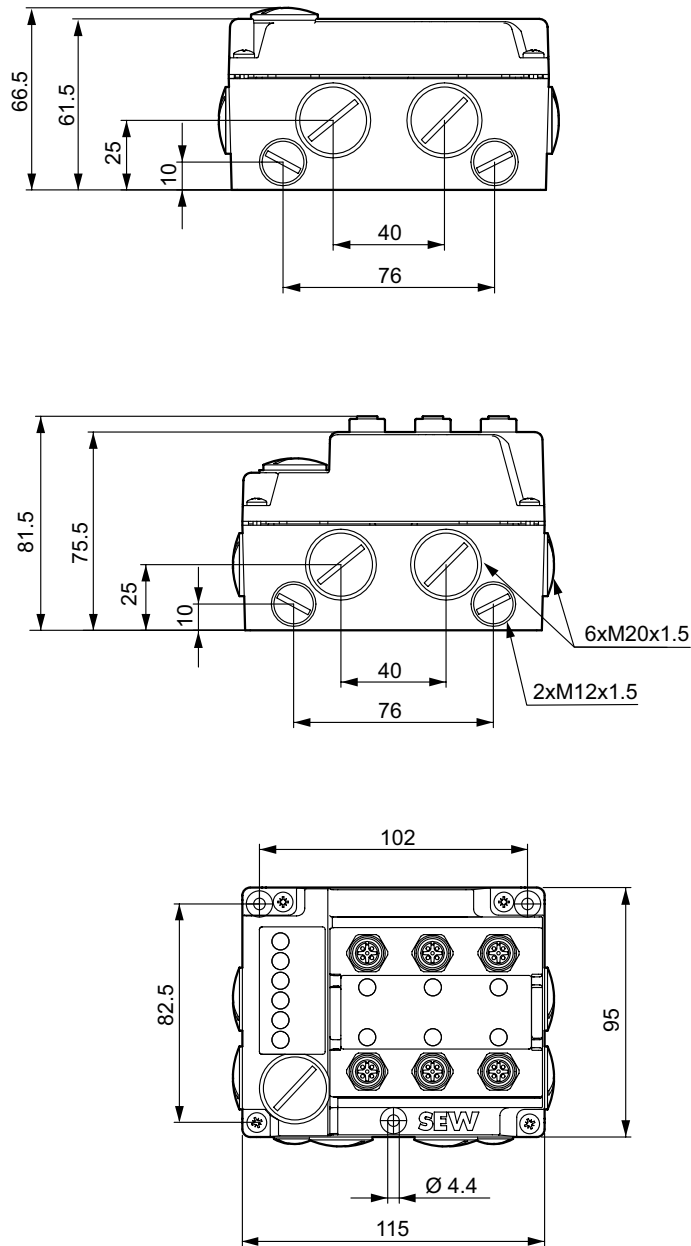
6.2.3 Hybrid cable for connecting fieldbus interfaces and MOVIMOT®

Field distributor Fieldbus interface	Hybrid cable	Cable type	Drive
Z.1 or RS-485-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 

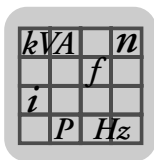
6.2.4 Dimension drawing for MF../Z.1, MQ../Z.1 fieldbus interfaces

Dimension sheet
fieldbus inter-
faces MF../MQ..

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

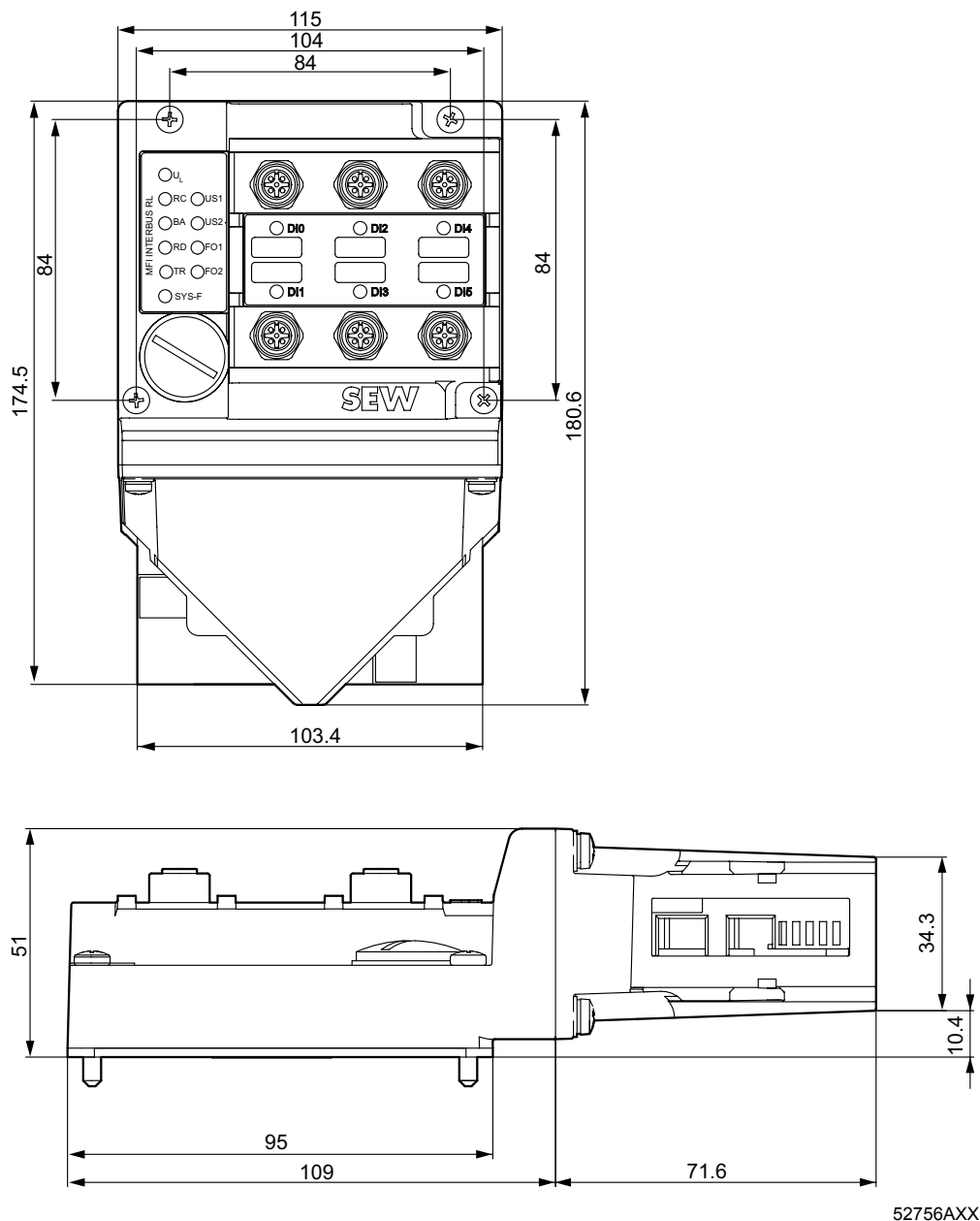


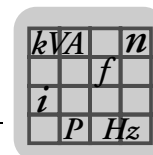
52762AXX



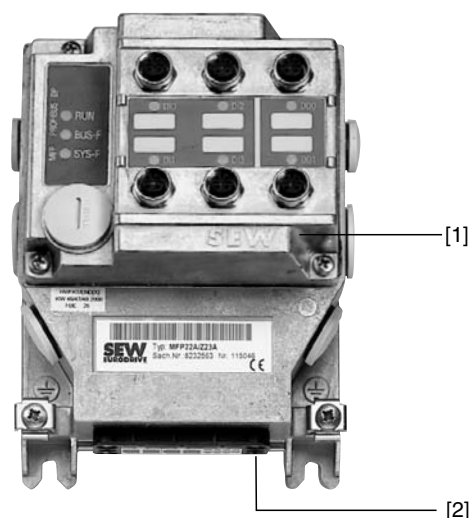
Dimension drawing MFI23/MFI33 fieldbus interface with Rugged-Line connection

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





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



52543AXX

- [1] MF../MQ.. fieldbus interface
[2] Connection prefabricated cable

6.3.1 Function

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

6.3.2 Sample unit designation

MFP21D/Z23D

Connection module for controlling MOVIMOT[®]

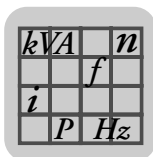
- Z13A = For InterBus
Z23D = For PROFIBUS
Z23D/AVT2/AWT2 = With M12 plug connector
For PROFIBUS
Z33A = For DeviceNet and CANopen
Z63A = For AS-Interface

Connection module for controlling MOVI-SWITCH[®]

- Z13W = For InterBus
Z23W = For PROFIBUS
Z23W/AVT2/AWT2 = With M12 plug connector
For PROFIBUS
Z33W = For DeviceNet and CANopen
Z63W = For AS-Interface

Fieldbus interface

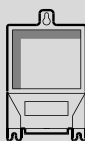
- MFI.. / MQI.. = InterBus
MFP.. / MQP.. = PROFIBUS
MFD.. / MQD.. = DeviceNet
MFO.. = CANopen
MFK.. = AS interface



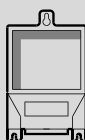
Fieldbus Interfaces and Field Distributors

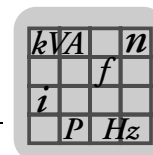
MF../Z.3., MQ../Z.3. field distributors

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

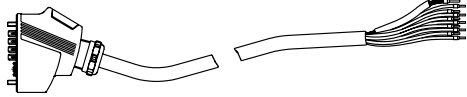
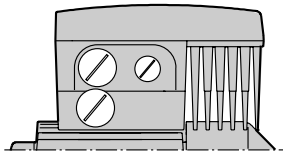
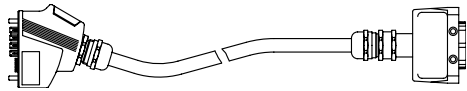
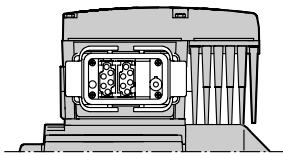
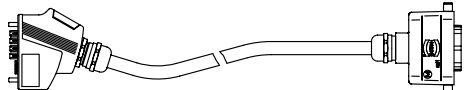
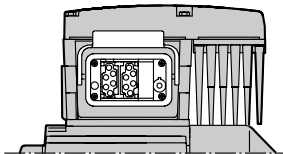
	no I/O 	4 x I / 2 x O (M12) 	6 x I (M12) 
InterBus	MFI21A/Z13A	MFI22A/Z13A	MFI32A/Z13A
InterBus with FO and Rugged-Line	—	MFI23F/Z13A	MFI33F/Z13A
PROFIBUS	MFP21D/Z23D	MFP22D/Z23D	MFP32D/Z23D
PROFIBUS with M12 plug connector for bus connection	MFP21D/Z23D/ AVT2/AWT2	MFP22D/Z23D/ AVT2/AWT2	MFP32D/Z23D/ AVT2/AWT2
DeviceNet	MFD21A/Z33A	MFD22A/Z33A	MFD32A/Z33A
CANopen	MFO21A/Z33A	MFO22A/Z33A	MFO32A/Z33A
AS interface	MFK21A/Z63A	MFK22A/Z63A	—

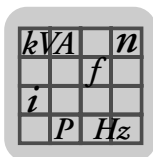
6.3.4 Possible combinations for MQ../Z.3. (MOVIMOT® control)

	no I/O 	4 x I / 2 x O (M12) 	6 x I (M12) 
InterBus	MQI21A/Z13A	MQI22A/Z13A	MQI32A/Z13A
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

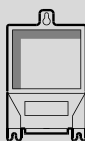


6.3.5 Hybrid cable for connecting Z.3. field distributor and MOVIMOT®

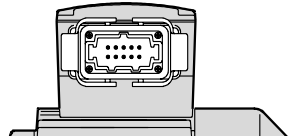
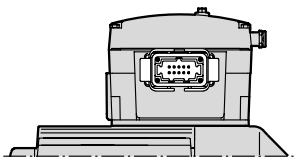
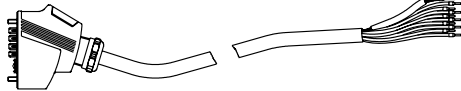
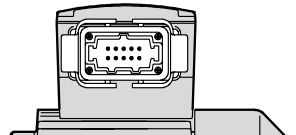
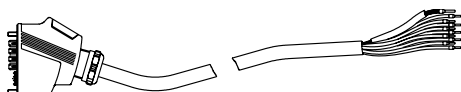
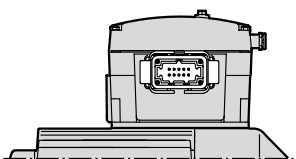
Field distributor or	Hybrid cable	Cable type	Drive
Z.3	Part number: 0186 725 3  High-priority type (preferred lengths 1.5 / 2 / 3 / 5 m) High-priority types with preferred length can usually be delivered at short notice	B	MOVIMOT® with cable glands 
	Part number: 0593 516 4  High-priority type (preferred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



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

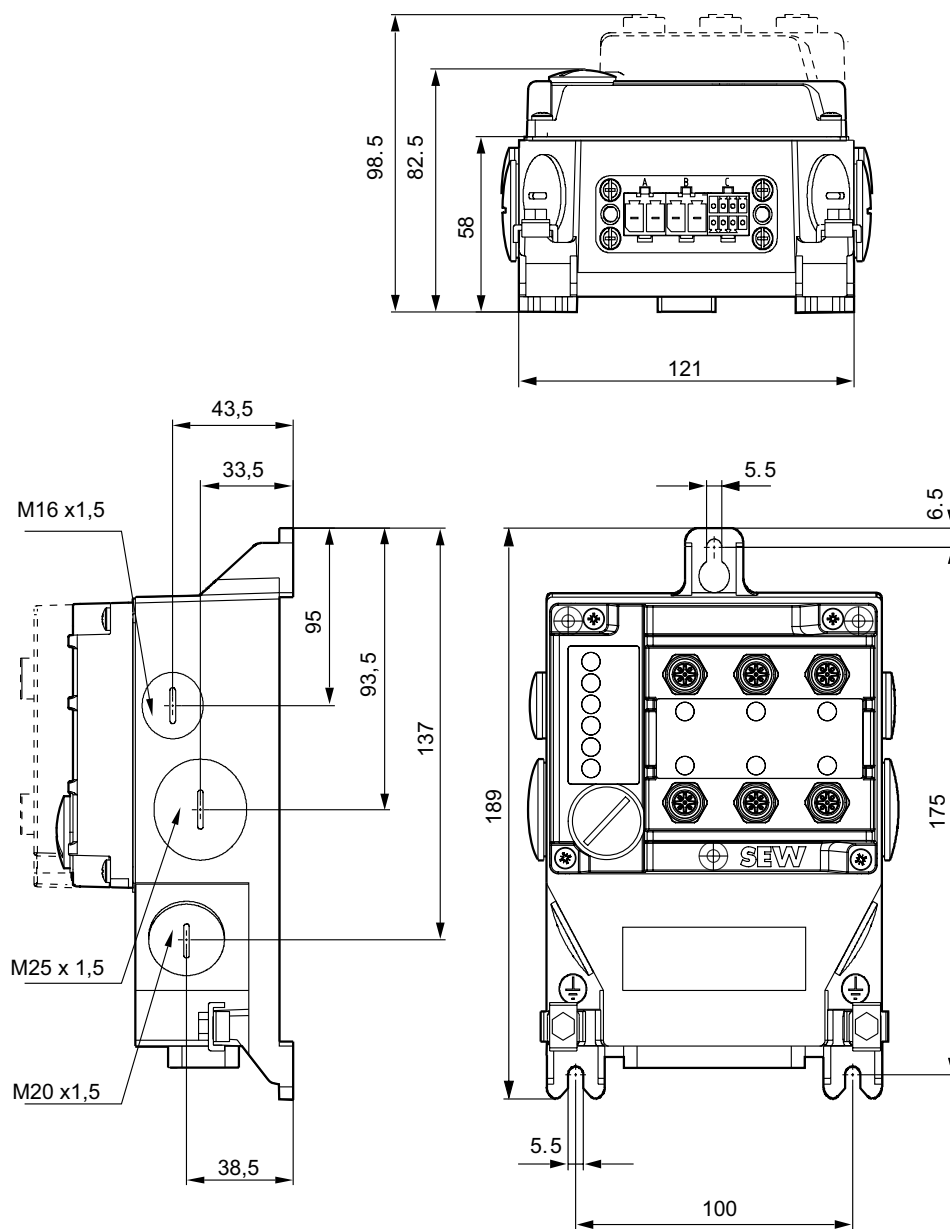
	no I/O 	4 x I / 2 x O (M12) 	6 x I (M12) 
InterBus	MFI21A/Z13W	MFI22A/Z13W	—
InterBus with FO and Rugged-Line	—	MFI23F/Z13W	—
PROFIBUS	MFP21D/Z23W	MFP22D/Z23W	—
PROFIBUS with M12 plug connector for bus connection	MFP21D/Z23W/ AVT2/AWT2	MFP22D/Z23W/ AVT2/AWT2	—
DeviceNet	MFD21A/Z33W	MFD22A/Z33W	—
CANopen	MFO21A/Z33W	MFO22A/Z33W	—
AS-Interface	MFK21A/Z63W	MFK22A/Z63W	—

6.3.7 Hybrid cable for connecting Z.3W field distributor and MOVI-SWITCH®

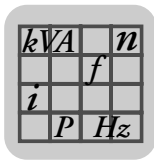
Field distributor	Hybrid cable	Cable type	Drive
Z.3W	Part number: 818 368 6 	B	MOVI-SWITCH® 1E with ASAW plug connector 
	Part number: 818 368 6 	B	MOVI-SWITCH® 2S with ASAW plug connector 
	Part number: 818 705 3 	B	MOVI-SWITCH® 1E with cable glands 
	Part number: 818 708 8 	B	MOVI-SWITCH® 2S with cable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

6.3.8 Dimension drawing for MF../Z.3., MQ../Z.3. field distributors

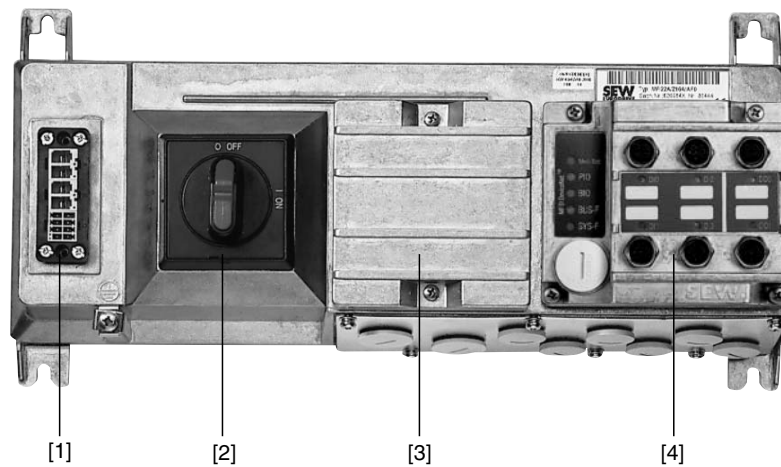
The following figure shows the dimensions of MF../Z.3., MQ../Z.3. field distributors:



52789AXX



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

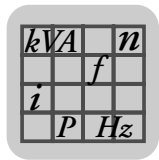


52545AXX

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

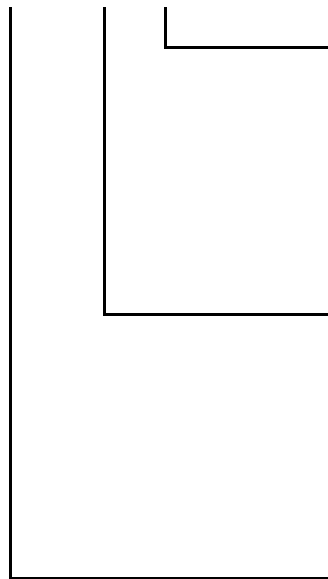
6.4.1 Function

- 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



6.4.2 Sample unit designation

MFP21D/Z26F/AF0



Connection technology

AF0 = Metric cable entry
AF1 = With Micro-style connector for DeviceNet and CANopen
AF2 = M12 plug connector for PROFIBUS
AF3 = M12 plug connector for PROFIBUS + M12 plug connector for 24 V supply
AF6 = M12 plug connector for AS-Interface

Connection module for controlling MOVIMOT®

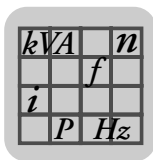
Z16F = For InterBus
Z26F = For PROFIBUS
Z36F = For DeviceNet and CANopen
Z66F = For AS-Interface

Connection module for controlling MOVI-SWITCH®

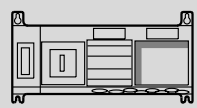
Z26W = For PROFIBUS

Fieldbus interface

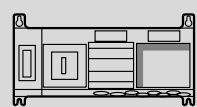
MFI.. / MQI.. = InterBus
MFP.. / MQP.. = PROFIBUS
MQS.. = PROFIBUS/PROFIsafe
MFD.. / MQD.. = DeviceNet
MFO.. = CANopen
MFK.. = AS interface

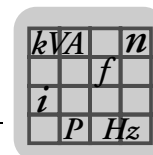


6.4.3 Possible combinations MF../Z.6. (MOVIMOT® control)

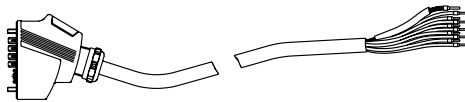
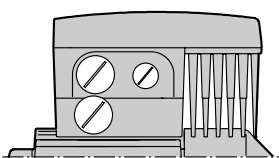
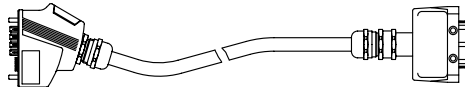
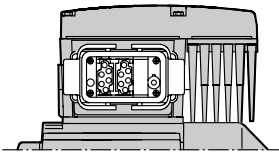
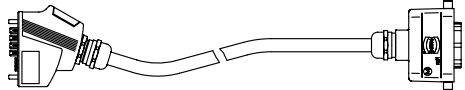
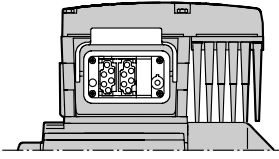
	4 x I / 2 x O (terminals)	4 x I / 2 x O (M12)	6 x I (M12)
InterBus	MFI21A/Z16F/AF0	MFI22A/Z16F/AF0	MFI32A/Z16F/AF0
InterBus with FO and Rugged-Line	—	MFI23F/Z16F/AF0	MFI33F/Z16F/AF0
PROFIBUS	MFP21D/Z26F/AF0	MFP22D/Z26F/AF0	MFP32D/Z26F/AF0
	MFP21D/Z26F/AF2	MFP22D/Z26F/AF2	MFP32D/Z26F/AF2
	MFP21D/Z26F/AF3	MFP22D/Z26F/AF3	MFP32D/Z26F/AF3
DeviceNet	MFD21A/Z36F/AF1	MFD22A/Z36F/AF1	MFD32A/Z36F/AF1
CANopen	MFO21A/Z36F/AF1	MFO22A/Z36F/AF1	MFO32A/Z36F/AF1
AS-Interface	MFk21A/Z66F/AF6	MFk22A/Z66F/AF6	—

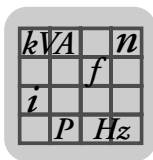
6.4.4 Possible combinations for MQ../Z.6. (MOVIMOT® control)

	4 x I / 2 x O (terminals)	4 x I / 2 x O (M12)	6 x I (M12)
InterBus	MQI21A/Z16F/AF0	MQI22A/Z16F/AF0	MQI32A/Z16F/AF0
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
PROFIBUS/PROFIsafe	—	MQS22F/Z26F/AF0 – SafetyDrive	MQS32F/Z26F/AF0 – SafetyDrive
	—	MQS22F/Z26F/AF2 – SafetyDrive	MQS32F/Z26F/AF2 – SafetyDrive
	—	MQS22F/Z26F/AF3 – SafetyDrive	MQD32F/Z26F/AF3 – SafetyDrive
DeviceNet	MQD21A/Z36F/AF1	MQD22A/Z36F/AF1	MQD32A/Z36F/AF1



6.4.5 Hybrid cable for connecting Z.6. field distributor and MOVIMOT®

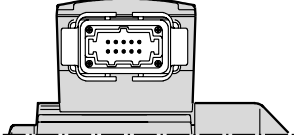
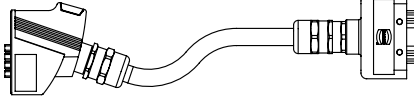
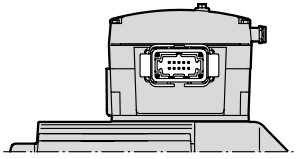
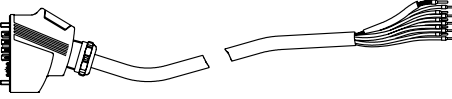
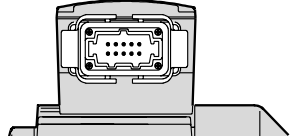
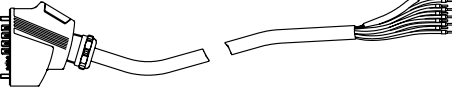
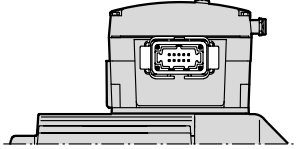
Field distributor or	Hybrid cable	Cable type	Drive
Z.6	Part number: 0186 725 3  High-priority type (preferred lengths 1.5 / 2 / 3 / 5 m) <i>High-priority types with preferred length can usually be delivered at short notice</i>	B	MOVIMOT® with cable glands 
	Part number: 0593 516 4  High-priority type (preferred lengths 1.5 / 2 / 3 / 5 m) <i>High-priority types with preferred length 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 



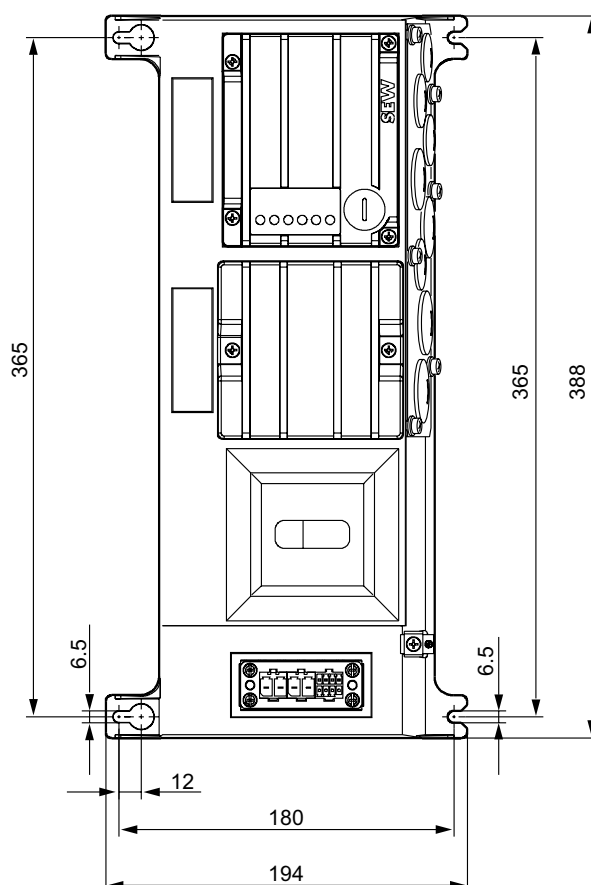
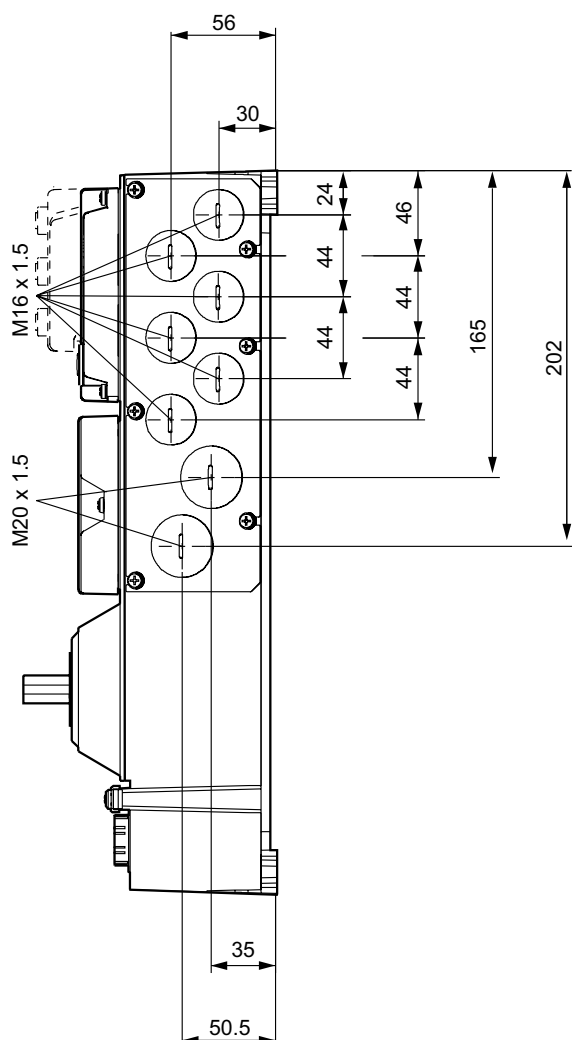
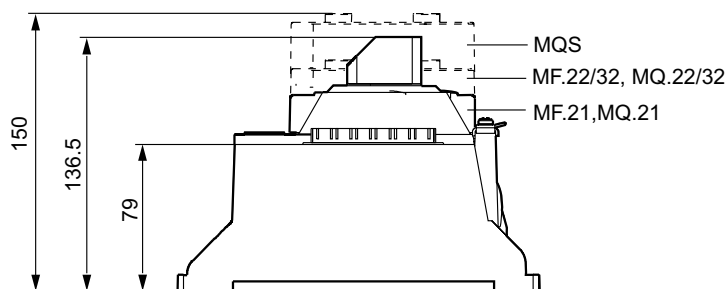
6.4.6 Possible combinations for MF../Z.6W (MOVI-SWITCH® control)

			
PROFIBUS	MFP21D/Z26W/AF0	MFP22D/Z26W/AF0	—
	MFP21D/Z26W/AF2	MFP22D/Z26W/AF2	—
	MFP21D/Z26W/AF3	MFP22D/Z26W/AF3	—

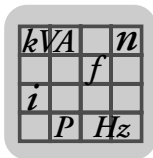
6.4.7 Hybrid cable for connecting Z.6W field distributor and MOVI-SWITCH®

Field distributor	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 

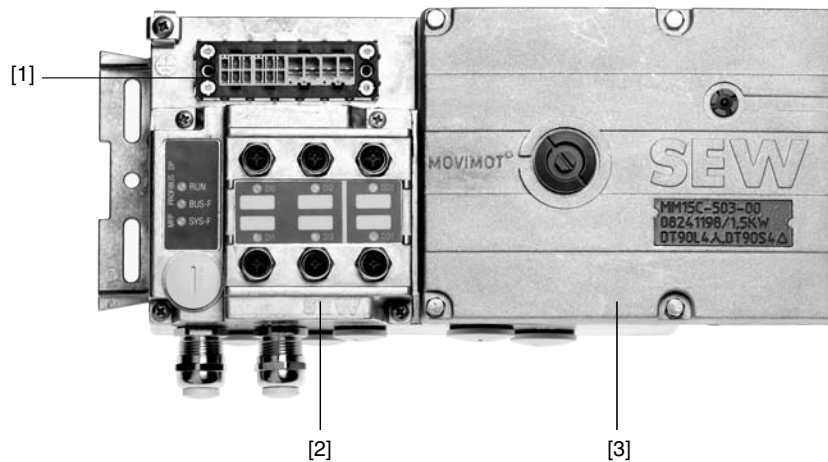
6.4.8 Dimension drawings for MF../Z.6., MQ../Z.6. field distributors



62684AXX



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



52547AXX

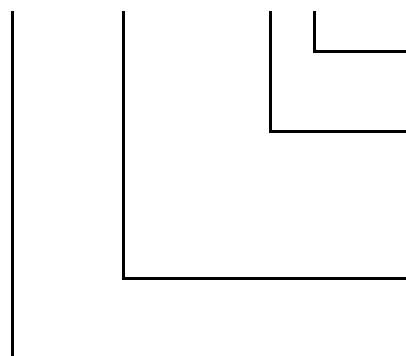
- [1] Connection prefabricated cable
 [2] MF../MQ.. fieldbus interface
 [3] MOVIMOT® inverter

6.5.1 Function

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

6.5.2 Sample unit designation

MFP22D/MM15C-503-00/Z27F 0¹⁾



Connection type

0 = Δ / 1 = $\triangle$

Connection module

Z17 = For InterBus
 Z27 = For PROFIBUS
 Z37 = For DeviceNet and CANopen
 Z67 = For AS-Interface

MOVIMOT® inverter

MM03 to MM15

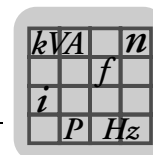
Fieldbus interface

MFI.. / MQI.. = InterBus
 MFP.. / MQP.. = PROFIBUS
 MQS.. = PROFIBUS/PROFIsafe
 MFD.. / MQD.. = DeviceNet
 MFO.. = CANopen
 MFK.. = AS interface

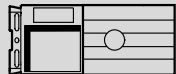
1) If the field distributor is used in combination with a drive without mechanical holding brake, the field distributor must be ordered with integrated braking resistor (according to the following example):

MF../MM..C/Z.7../BW.



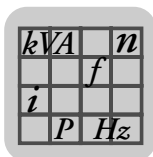


6.5.3 Possible combinations MF../MM../Z.7.

		4 x I / 2 x O (terminals)	4 x I / 2 x O (M12)	6 x I (M12)
InterBus		MF121A/MM../C/Z17F 0	MF122A/MM../C/Z17F 0	MF132A/MM../C/Z17F 0
		MF121A/MM../C/Z17F 1	MF122A/MM../C/Z17F 1	MF132A/MM../C/Z17F 1
InterBus with FO and Rugged Line		–	MF123F/MM../C/Z17F 0	MF123F/MM../C/Z17F 0
		–	MF123F/MM../C/Z17F 1	MF123F/MM../C/Z17F 1
PROFIBUS		MFP21D/MM../C/Z27F 0	MFP22D/MM../C/Z27F 0	MFP32D/MM../C/Z27F 0
		MFP21D/MM../C/Z27F 1	MFP22D/MM../C/Z27F 1	MFP32D/MM../C/Z27F 1
PROFIBUS/PROFIsafe		MFP21D/MM../C/Z27F 0	MFP22D/MM../C/Z27F 0	MFP32D/MM../C/Z27F 0
		MFP21D/MM../C/Z27F 1	MFP22D/MM../C/Z27F 1	MFP32D/MM../C/Z27F 1
DeviceNet		MFD21A/MM../C/Z37F 0	MFD22A/MM../C/Z37F 0	MFD32A/MM../C/Z37F 0
		MFD21A/MM../C/Z37F 1	MFD22A/MM../C/Z37F 1	MFD32A/MM../C/Z37F 1
CANopen		MFO21A/MM../C/Z37F 0	MFO22A/MM../C/Z37F 0	MFO32A/MM../C/Z37F 0
		MFO21A/MM../C/Z37F 1	MFO22A/MM../C/Z37F 1	MFO32A/MM../C/Z37F 1
AS-Interface		MFK21A/MM../C/Z67F 0	MFK22A/MM../C/Z67F 0	–
		MFK21A/MM../C/Z67F 1	MFK22A/MM../C/Z67F 1	–

6.5.4 Possible combinations MQ../MM../Z.7.

		4 x I / 2 x O (terminals)	4 x I / 2 x O (M12)	6 x I (M12)
InterBus		MQI21A/MM../C/Z17F 0	MQI22A/MM../C/Z17F 0	MQI32A/MM../C/Z17F 0
		MQI21A/MM../C/Z17F 1	MQI22A/MM../C/Z17F 1	MQI32A/MM../C/Z17F 1
PROFIBUS		MQP21D/MM../C/Z27F 0	MQP22D/MM../C/Z27F 0	MQP32D/MM../C/Z27F 0
		MQP21D/MM../C/Z27F 1	MQP22D/MM../C/Z27F 1	MQP32D/MM../C/Z27F 1
PROFIBUS/PROFIsafe		–	MQS22F/MM../C/Z27F 0 – SafetyDrive	MQS32F/MM../C/Z27F 0 – SafetyDrive
		–	MQS22F/MM../C/Z27F 1 – SafetyDrive	MQS32F/MM../C/Z27F 1 – SafetyDrive
DeviceNet		MQD21A/MM../C/Z37F 0	MQD22A/MM../C/Z37F 0	MQD32A/MM../C/Z37F 0
		MQD21A/MM../C/Z37F 1	MQD22A/MM../C/Z37F 1	MQD32A/MM../C/Z37F 1



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

1400 1/min

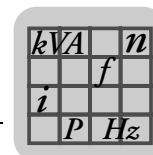
Power [kW]	Motor λ	Field distributors	
		with MF.. fieldbus interface	with MQ.. fieldbus interface
0.25	DFR63L4/TH	– MF../ MM03C / Z.7F 0 / BW1 ¹⁾	– MQ../ MM03C / Z.7F 0 / BW1 ¹⁾
	DFR63L4/BR/TH.	– MF../ MM03C / Z.7F 0 ¹⁾	– MQ../ MM03C / Z.7F 0 ¹⁾
0.37	DT71D4/TH	MF../ MM03C / Z.7F 0 / BW1 MF../ MM05C / Z.7F 0 / BW1 ¹⁾	MQ../ MM03C / Z.7F 0 / BW1 MQ../ MM05C / Z.7F 0 / BW1 ¹⁾
	DT71D4/BMG/TH.	MF../ MM03C / Z.7F 0 MF../ MM05C / Z.7F 0 ¹⁾	MQ../ MM03C / Z.7F 0 MQ../ MM05C / Z.7F 0 ¹⁾
0.55	DT80K4/TH	MF../ MM05C / Z.7F 0 / BW1 MF../ MM07C / Z.7F 0 / BW1 ¹⁾	MQ../ MM05C / Z.7F 0 / BW1 MQ../ MM07C / Z.7F 0 / BW1 ¹⁾
	DT80K4/BMG/TH.	MF../ MM05C / Z.7F 0 MF../ MM07C / Z.7F 0 ¹⁾	MQ../ MM05C / Z.7F 0 MQ../ MM07C / Z.7F 0 ¹⁾
0.75	DT80N4/TH	MF../ MM07C / Z.7F 0 / BW1 MF../ MM11C / Z.7F 0 / BW1 ¹⁾	MQ../ MM07C / Z.7F 0 / BW1 MQ../ MM11C / Z.7F 0 / BW1 ¹⁾
	DT80N4/BMG/TH.	MF../ MM07C / Z.7F 0 MF../ MM11C / Z.7F 0 ¹⁾	MQ../ MM07C / Z.7F 0 MQ../ MM11C / Z.7F 0 ¹⁾
1.1	DT90S4/TH	MF../ MM11C / Z.7F 0 / BW1 MF../ MM15C / Z.7F 0 / BW1 ¹⁾	MQ../ MM11C / Z.7F 0 / BW1 MQ../ MM15C / Z.7F 0 / BW1 ¹⁾
	DT90S4/BMG/TH.	MF../ MM11C / Z.7F 0 MF../ MM15C / Z.7F 0 ¹⁾	MQ../ MM11C / Z.7F 0 MQ../ MM15C / Z.7F 0 ¹⁾
1.5	DT90L4/TH	MF../ MM15C / Z.7F 0 / BW1 –	MQ../ MM15C / Z.7F 0 / BW1 –
	DT90L4/BMG/TH.	MF../ MM15C / Z.7F 0 –	MQ../ MM15C / Z.7F 0 –

1) Combination with increased short-term torque

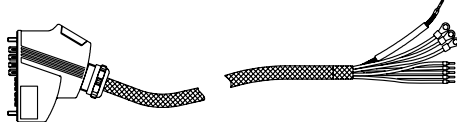
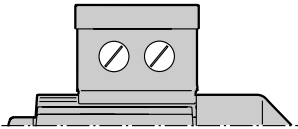
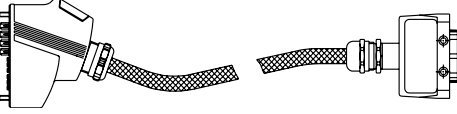
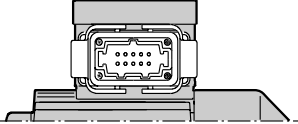
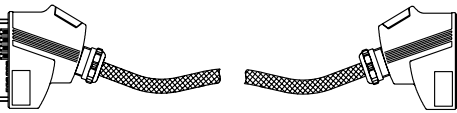
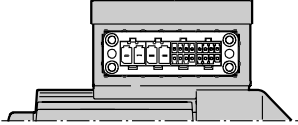
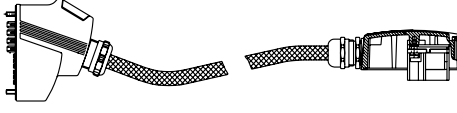
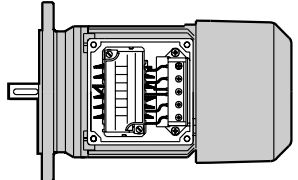
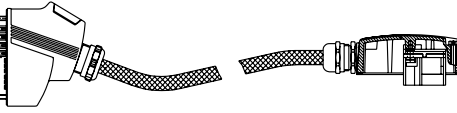
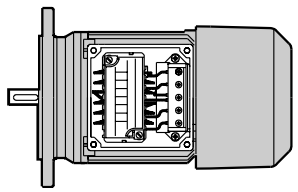
2900 1/min

Power [kW]	Motor Δ	Field distributors	
		with MF.. fieldbus interface	with MQ.. fieldbus interface
0.37	DFR63L4/TH	MF../ MM03C / Z.7F 1 / BW1 MF../ MM05C / Z.7F 1 / BW1 ¹⁾	MQ../ MM03C / Z.7F 1 / BW1 MQ../ MM05C / Z.7F 1 / BW1 ¹⁾
	DFR63L4 / BR / TH .	MF../ MM03C / Z.7F 1 MF../ MM05C / Z.7F 1 ¹⁾	MQ../ MM03C / Z.7F 1 MQ../ MM05C / Z.7F 1 ¹⁾
0.55	DT71D4/TH	MF../ MM05C / Z.7F 1 / BW1 MF../ MM07C / Z.7F 1 / BW1 ¹⁾	MQ../ MM05C / Z.7F 1 / BW1 MQ../ MM07C / Z.7F 1 / BW1 ¹⁾
	DT71D4 / BMG / TH .	MF../ MM05C / Z.7F 1 MF../ MM07C / Z.7F 1 ¹⁾	MQ../ MM05C / Z.7F 1 MQ../ MM07C / Z.7F 1 ¹⁾
0.75	DT80K4/TH	MF../ MM07C / Z.7F 1 / BW1 MF../ MM11C / Z.7F 1 / BW1 ¹⁾	MQ../ MM07C / Z.7F 1 / BW1 MQ../ MM11C / Z.7F 1 / BW1 ¹⁾
	DT80K4 / BMG / TH .	MF../ MM07C / Z.7F 1 MF../ MM11C / Z.7F 1 ¹⁾	MQ../ MM07C / Z.7F 1 MQ../ MM11C / Z.7F 1 ¹⁾
1.1	DT80N4/TH	MF../ MM11C / Z.7F 1 / BW1 MF../ MM15C / Z.7F 1 / BW1 ¹⁾	MQ../ MM11C / Z.7F 1 / BW1 MQ../ MM15C / Z.7F 1 / BW1 ¹⁾
	DT80N4 / BMG / TH .	MF../ MM11C / Z.7F 1 MF../ MM15C / Z.7F 1 ¹⁾	MQ../ MM11C / Z.7F 1 MQ../ MM15C / Z.7F 1 ¹⁾
1.5	DT90S4/TH	MF../ MM15C / Z.7F 1 / BW1 –	MQ../ MM15C / Z.7F 1 / BW1 –
	DT90S4 / BMG / TH .	MF../ MM15C / Z.7F 1 –	MQ../ MM15C / Z.7F 1 –

1) Combination with increased short-term torque

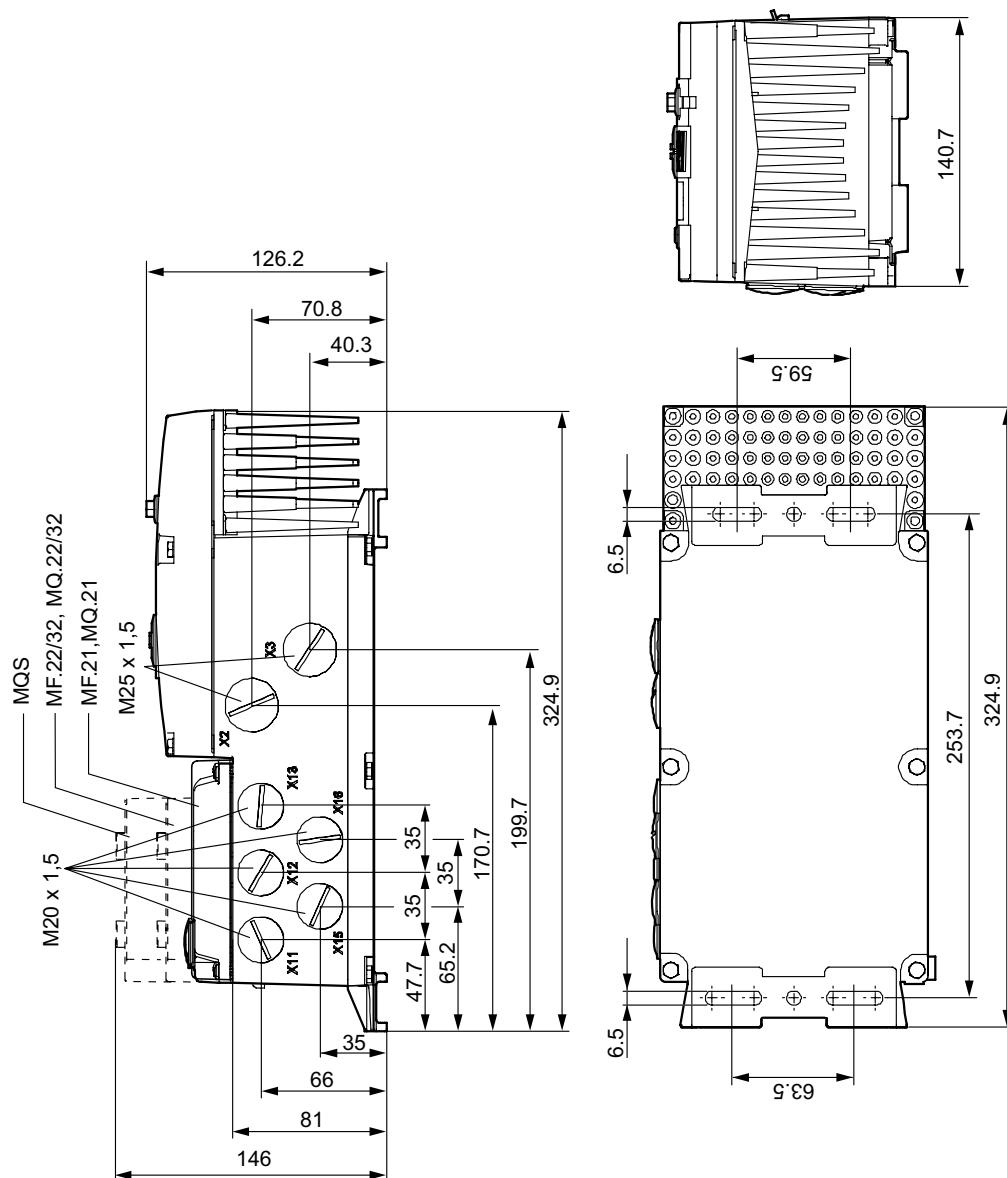


6.5.6 Hybrid cable for connecting Z.7. field distributors to motors

Field distributors	Hybrid cable	Cable type	Drive
Z.7	Part number 0186 742 3  High-priority type (preferred lengths 1.5 / 2 / 3 / 5 m) <i>High-priority types with preferred length can usually be delivered at short notice</i>	A	AC motors with cable gland 
	Part number: 0593 076 6  High-priority type (preferred lengths 1.5 / 2 / 3 / 5 m) <i>High-priority types with preferred length can usually be delivered at short notice</i>	A	AC motors with ASB4 plug connector 
	Part number 0186 741 5 	A	AC motors with APG4 plug connector 
	Part number: 0593 278 5 (∧) Part number: 0816 325 1 (Δ) 	A	AC motors with IS plug connector, sizes DT71DT90 
	Part number: 0593 755 8 (∧) Part number: 0816 326 X (Δ) 	A	AC motors with IS plug connector, size DV100 

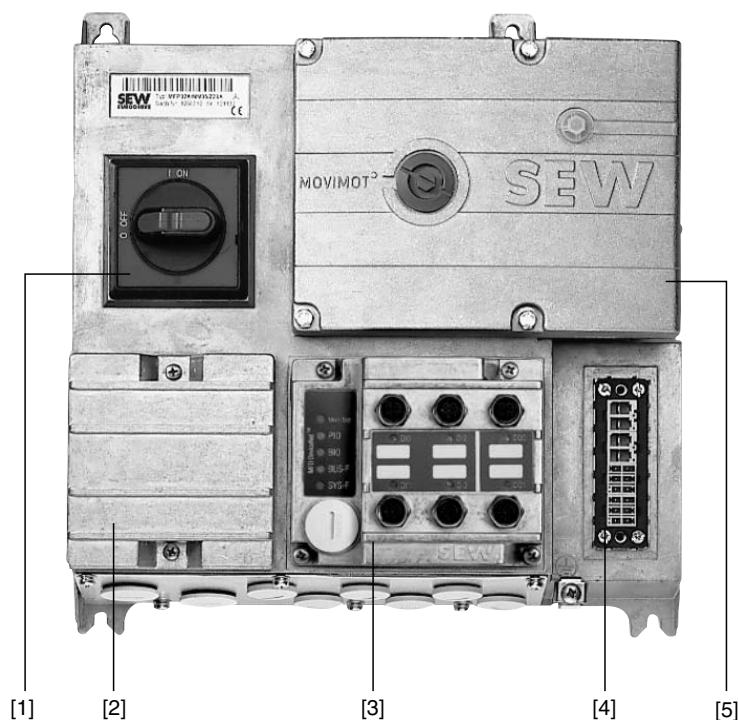
6.5.7 Dimension drawing for MF../MM03-MM15/Z.7., MQ../MM03-MM15/Z.7. field distributor

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



62685AXX

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

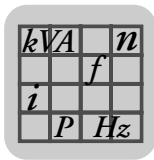


52551AXX

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

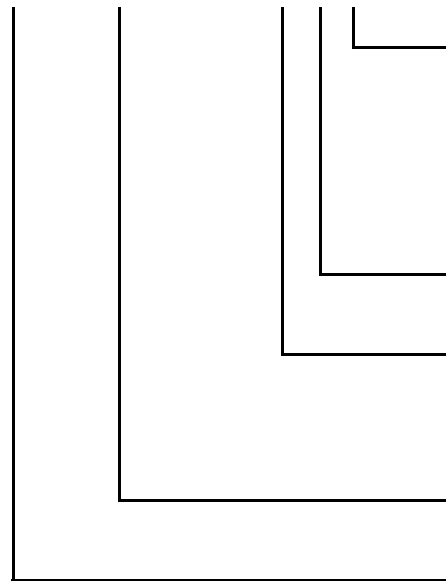
6.6.1 Function

- 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



6.6.2 Sample unit designation

MFP22D/MM22C-503-00/Z28F 0/AF0¹⁾



Connection technology

AF0 = Metric cable entry
 AF1 = With Micro-style connector for DeviceNet and CANopen
 AF2 = M12 plug connector for PROFIBUS
 AF3 = M12 plug connector for PROFIBUS + M12 plug connector for 24 V supply
 AF6 = M12 plug connector for AS-Interface

Connection type

0 = / 1 =

Connection module

Z18 = For InterBus
 Z28 = For PROFIBUS
 Z38 = For DeviceNet and CANopen
 Z68 = For AS-Interface

MOVIMOT[®] inverter

Fieldbus interface

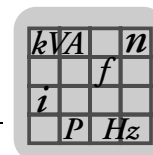
MF1.. / MQ1.. = InterBus
 MFP.. / MQP.. = PROFIBUS
 MQS.. = PROFIBUS/PROFIsafe
 MFD.. / MQD.. = DeviceNet
 MFO.. = CANopen
 MFK.. = AS-Interface

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

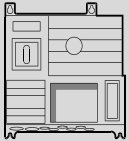
MF../MM../C/Z.8../**BW**../AF.

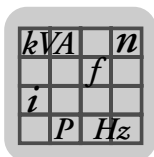


MM03 - MM15: **BW1**
 MM22 - MM3X: **BW2**

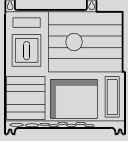


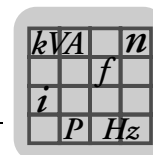
6.6.3 Possible combinations for MF../MM../Z.8.

	4 x I / 2 x O (terminals)		4 x I / 2 x O (M12)	6 x I (M12)
				
InterBus		MFI21A/MM../C/Z18F 0/AF0	MFI22A/MM../C/Z18F 0/AF0	MFI32A/MM../C/Z18F 0/AF0
		MFI21A/MM../C/Z18F 1/AF0	MFI22A/MM../C/Z18F 1/AF0	MFI32A/MM../C/Z18F 1/AF0
InterBus with FO and Rugged Line		–	MFI23F/MM../C/Z18F 0/AF0	MFI33F/MM../C/Z18F 0/AF0
		–	MFI23F/MM../C/Z18F 1/AF0	MFI33F/MM../C/Z18F 1/AF0
PROFIBUS		MFP21D/MM../C/Z28F 0/AF0	MFP22D/MM../C/Z28F 0/AF0	MFP32D/MM../C/Z28F 0/AF0
		MFP21D/MM../C/Z28F 1/AF0	MFP22D/MM../C/Z28F 1/AF0	MFP32D/MM../C/Z28F 1/AF0
		MFP21D/MM../C/Z28F 0/AF2	MFP22D/MM../C/Z28F 0/AF2	MFP32D/MM../C/Z28F 0/AF2
		MFP21D/MM../C/Z28F 1/AF2	MFP22D/MM../C/Z28F 1/AF2	MFP32D/MM../C/Z28F 1/AF2
		MFP21D/MM../C/Z28F 0/AF3	MFP22D/MM../C/Z28F 0/AF3	MFP32D/MM../C/Z28F 0/AF3
		MFP21D/MM../C/Z28F 1/AF3	MFP22D/MM../C/Z28F 1/AF3	MFP32D/MM../C/Z28F 1/AF3
DeviceNet		MFD21A/MM../C/Z38F 0/AF1	MFD22A/MM../C/Z38F 0/AF1	MFD32A/MM../C/Z38F 0/AF1
		MFD21A/MM../C/Z38F 1/AF1	MFD22A/MM../C/Z38F 1/AF1	MFD32A/MM../C/Z38F 1/AF1
CANopen		MFO21A/MM../C/Z38F 0/AF1	MFO22A/MM../C/Z38F 0/AF1	MFO32A/MM../C/Z38F 0/AF1
		MFO21A/MM../C/Z38F 1/AF1	MFO22A/MM../C/Z38F 1/AF1	MFO32A/MM../C/Z38F 1/AF1
AS interface		MFK21A/MM../C/Z68F 0/AF1	MFK22A/MM../C/Z68F 0/AF1	–
		MFK21A/MM../C/Z68F 1/AF1	MFK22A/MM../C/Z68F 1/AF1	–



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

		4 x I / 2 x O (terminals)	4 x I / 2 x O (M12)	6 x I (M12)
InterBus		MQI21A/MM../C/Z18F 0/AF0	MQI22A/MM../C/Z18F 0/AF0	MQI32A/MM../C/Z18F 0/AF0
		MQI21A/MM../C/Z18F 1/AF0	MQI22A/MM../C/Z18F 1/AF0	MQI32A/MM../C/Z18F 1/AF0
PROFIBUS		MQP21D/MM../C/Z28F 0/AF0	MQP22D/MM../C/Z28F 0/AF0	MQP32D/MM../C/Z28F 0/AF0
		MQP21D/MM../C/Z28F 1/AF0	MQP22D/MM../C/Z28F 1/AF0	MQP32D/MM../C/Z28F 1/AF0
		MQP21D/MM../C/Z28F 0/AF2	MQP22D/MM../C/Z28F 0/AF2	MQP32D/MM../C/Z28F 0/AF2
		MQP21D/MM../C/Z28F 1/AF2	MQP22D/MM../C/Z28F 1/AF2	MQP32D/MM../C/Z28F 1/AF2
		MQP21D/MM../C/Z28F 0/AF3	MQP22D/MM../C/Z28F 0/AF3	MQP32D/MM../C/Z28F 0/AF3
		MQP21D/MM../C/Z28F 1/AF3	MQP22D/MM../C/Z28F 1/AF3	MQP32D/MM../C/Z28F 1/AF3
PROFIBUS/ PROFIsafe		–	MQS22F/MM../C/Z28F 0/AF0 – SafetyDrive	MQS32F/MM../C/Z28F 0/AF0 – SafetyDrive
		–	MQS22F/MM../C/Z28F 1/AF0 – SafetyDrive	MQS32F/MM../C/Z28F 1/AF0 – SafetyDrive
		–	MQS22F/MM../C/Z28F 0/AF2 – SafetyDrive	MQS32F/MM../C/Z28F 0/AF2 – SafetyDrive
		–	MQS22F/MM../C/Z28F 1/AF2 – SafetyDrive	MQS32F/MM../C/Z28F 1/AF2 – SafetyDrive
		–	MQS22F/MM../C/Z28F 0/AF3 – SafetyDrive	MQS32F/MM../C/Z28F 0/AF3 – SafetyDrive
		–	MQS22F/MM../C/Z28F 1/AF3 – SafetyDrive	MQS32F/MM../C/Z28F 1/AF3 – SafetyDrive
DeviceNet		MQD21A/MM../C/Z38F 0/AF1	MQD22A/MM../C/Z38F 0/AF1	MQD32A/MM../C/Z38F 0/AF1
		MQD21A/MM../C/Z38F 1/AF1	MQD22A/MM../C/Z38F 1/AF1	MQD32A/MM../C/Z38F 1/AF1

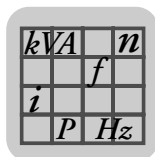


6.6.5 Assignment of motors to MF../MM../Z.8., MQ../MM../Z.8. field distributors

1400 1/min

Power [kW]	Motor 	Field distributors	
		with MF.. fieldbus interface	with MQ.. fieldbus interface
0.25	DFR63L4/TH	— MF../ MM03C / Z.8F 0 / BW1 / AF.. ¹⁾	— MQ../ MM03C / Z.8F 0 / BW1 / AF.. ¹⁾
	DFR63L4 / BR / TH .	— MF../ MM03C / Z.8F 0 / AF.. ¹⁾	— MQ../ MM03C / Z.8F 0 / AF.. ¹⁾
0.37	DT71D4/TH	MF../ MM03C / Z.8F 0 / BW1 / AF.. MF../ MM05C / Z.8F 0 / BW1 / AF.. ¹⁾	MQ../ MM03C / Z.8F 0 / BW1 / AF.. MQ../ MM05C / Z.8F 0 / BW1 / AF.. ¹⁾
	DT71D4 / BMG / TH .	MF../ MM03C / Z.8F 0 / AF.. MF../ MM05C / Z.8F 0 / AF.. ¹⁾	MQ../ MM03C / Z.8F 0 / AF.. MQ../ MM05C / Z.8F 0 / AF.. ¹⁾
0.55	DT80K4/TH	MF../ MM05C / Z.8F 0 / BW1 / AF.. MF../ MM07C / Z.8F 0 / BW1 / AF.. ¹⁾	MQ../ MM05C / Z.8F 0 / BW1 / AF.. MQ../ MM07C / Z.8F 0 / BW1 / AF.. ¹⁾
	DT80K4 / BMG / TH .	MF../ MM05C / Z.8F 0 / AF.. MF../ MM07C / Z.8F 0 / AF.. ¹⁾	MQ../ MM05C / Z.8F 0 / AF.. MQ../ MM07C / Z.8F 0 / AF.. ¹⁾
0.75	DT80N4/TH	MF../ MM07C / Z.8F 0 / BW1 / AF.. MF../ MM11C / Z.8F 0 / BW1 / AF.. ¹⁾	MQ../ MM07C / Z.8F 0 / BW1 / AF.. MQ../ MM11C / Z.8F 0 / BW1 / AF.. ¹⁾
	DT80N4 / BMG / TH .	MF../ MM07C / Z.8F 0 / AF.. MF../ MM11C / Z.8F 0 / AF.. ¹⁾	MQ../ MM07C / Z.8F 0 / AF.. MQ../ MM11C / Z.8F 0 / AF.. ¹⁾
1.1	DT90S4/TH	MF../ MM11C / Z.8F 0 / BW1 / AF.. MF../ MM15C / Z.8F 0 / BW1 / AF.. ¹⁾	MQ../ MM11C / Z.8F 0 / BW1 / AF.. MQ../ MM15C / Z.8F 0 / BW1 / AF.. ¹⁾
	DT90S4 / BMG / TH .	MF../ MM11C / Z.8F 0 / AF.. MF../ MM15C / Z.8F 0 / AF.. ¹⁾	MQ../ MM11C / Z.8F 0 / AF.. MQ../ MM15C / Z.8F 0 / AF.. ¹⁾
1.5	DT90L4/TH	MF../ MM15C / Z.8F 0 / BW1 / AF.. MF../ MM22C / Z.8F 0 / BW2 / AF.. ¹⁾	MQ../ MM15C / Z.8F 0 / BW1 / AF.. MQ../ MM22C / Z.8F 0 / BW2 / AF.. ¹⁾
	DT90L4 / BMG / TH .	MF../ MM15C / Z.8F 0 / AF.. MF../ MM22C / Z.8F 0 / AF.. ¹⁾	MQ../ MM15C / Z.8F 0 / AF.. MQ../ MM22C / Z.8F 0 / AF.. ¹⁾
2.2	DV100M4/TH	MF../ MM22C / Z.8F 0 / BW2 / AF.. MF../ MM30C / Z.8F 0 / BW2 / AF.. ¹⁾	MQ../ MM22C / Z.8F 0 / BW2 / AF.. MQ../ MM30C / Z.8F 0 / BW2 / AF.. ¹⁾
	DV100M4 / BMG / TH .	MF../ MM22C / Z.8F 0 / AF.. MF../ MM30C / Z.8F 0 / AF.. ¹⁾	MQ../ MM22C / Z.8F 0 / AF.. MQ../ MM30C / Z.8F 0 / AF.. ¹⁾
3	DV100L4/TH	MF../ MM30C / Z.8F 0 / BW2 / AF.. MF../ MM3XC / Z.8F 0 / BW2 / AF.. ¹⁾	MQ../ MM30C / Z.8F 0 / BW2 / AF.. MQ../ MM3XC / Z.8F 0 / BW2 / AF.. ¹⁾
	DV100L4 / BMG / TH .	MF../ MM30C / Z.8F 0 / AF.. MF../ MM3XC / Z.8F 0 / AF.. ¹⁾	MQ../ MM30C / Z.8F 0 / AF.. MQ../ MM3XC / Z.8F 0 / AF.. ¹⁾

1) Combination with increased short-term torque



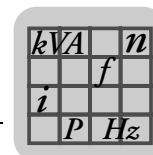
Fieldbus Interfaces and Field Distributors

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

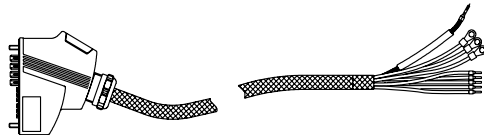
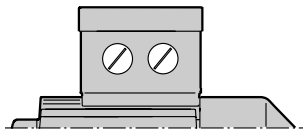
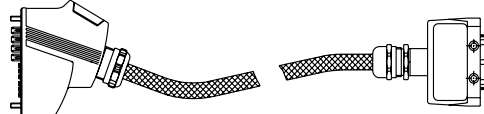
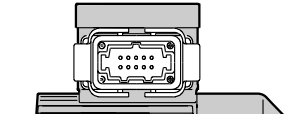
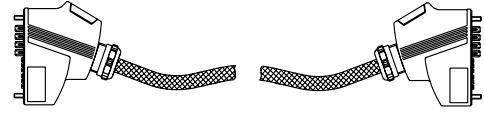
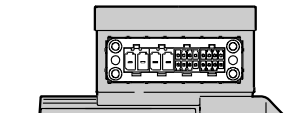
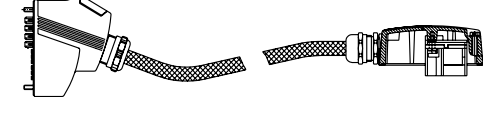
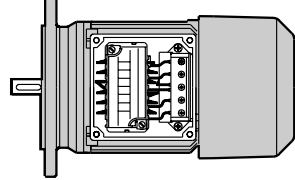
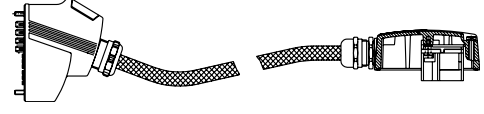
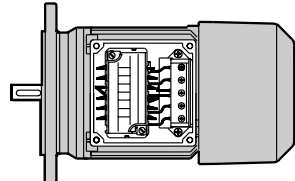
2900 1/min

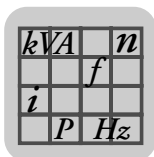
Power [kW]	Motor Δ	Field distributors	
		with MF.. fieldbus interface	with MQ.. fieldbus interface
0.37	DFR63L4/TH	MF../ MM03C / Z.8F 1 / BW1 / AF.. MF../ MM05C / Z.8F 1 / BW1 / AF.. ¹⁾	MQ../ MM03C / Z.8F 1 / BW1 / AF.. MQ../ MM05C / Z.8F 1 / BW1 / AF.. ¹⁾
	DFR63L4/ BMG /TH.	MF../ MM03C / Z.8F 1 / AF.. MF../ MM05C / Z.8F 1 / AF.. ¹⁾	MQ../ MM03C / Z.8F 1 / AF.. MQ../ MM05C / Z.8F 1 / AF.. ¹⁾
0.55	DT71D4/TH	MF../ MM05C / Z.8F 1 / BW1 / AF.. MF../ MM07C / Z.8F 1 / BW1 / AF.. ¹⁾	MQ../ MM05C / Z.8F 1 / BW1 / AF.. MQ../ MM07C / Z.8F 1 / BW1 / AF.. ¹⁾
	DT71D4 / BMG / TH .	MF../ MM05C / Z.8F 1 / AF.. MF../ MM07C / Z.8F 1 / AF.. ¹⁾	MQ../ MM05C / Z.8F 1 / AF.. MQ../ MM07C / Z.8F 1 / AF.. ¹⁾
0.75	DT80K4/TH	MF../ MM07C / Z.8F 1 / BW1 / AF.. MF../ MM11C / Z.8F 1 / BW1 / AF.. ¹⁾	MQ../ MM07C / Z.8F 1 / BW1 / AF.. MQ../ MM11C / Z.8F 1 / BW1 / AF.. ¹⁾
	DT80K4 / BMG / TH .	MF../ MM07C / Z.8F 1 / AF.. MF../ MM11C / Z.8F 1 / AF.. ¹⁾	MQ../ MM07C / Z.8F 1 / AF.. MQ../ MM11C / Z.8F 1 / AF.. ¹⁾
1.1	DT80N4/TH	MF../ MM11C / Z.8F 1 / BW1 / AF.. MF../ MM15C / Z.8F 1 / BW1 / AF.. ¹⁾	MQ../ MM11C / Z.8F 1 / BW1 / AF.. MQ../ MM15C / Z.8F 1 / BW1 / AF.. ¹⁾
	DT80N4 / BMG / TH .	MF../ MM11C / Z.8F 1 / AF.. MF../ MM15C / Z.8F 1 / AF.. ¹⁾	MQ../ MM11C / Z.8F 1 / AF.. MQ../ MM15C / Z.8F 1 / AF.. ¹⁾
1.5	DT90S4/TH	MF../ MM15C / Z.8F 1 / BW1 / AF.. MF../ MM22C / Z.8F 1 / BW2 / AF.. ¹⁾	MQ../ MM15C / Z.8F 1 / BW1 / AF.. MQ../ MM22C / Z.8F 1 / BW2 / AF.. ¹⁾
	DT90S4 / BMG / TH .	MF../ MM15C / Z.8F 1 / AF.. MF../ MM22C / Z.8F 1 / AF.. ¹⁾	MQ../ MM15C / Z.8F 1 / AF.. MQ../ MM22C / Z.8F 1 / AF.. ¹⁾
2.2	DT90L4/TH	MF../ MM22C / Z.8F 1 / BW2 / AF.. MF../ MM30C / Z.8F 1 / BW2 / AF.. ¹⁾	MQ../ MM22C / Z.8F 1 / BW2 / AF.. MQ../ MM30C / Z.8F 1 / BW2 / AF.. ¹⁾
	DT90L4 / BMG / TH .	MF../ MM22C / Z.8F 1 / AF.. MF../ MM30C / Z.8F 1 / AF.. ¹⁾	MQ../ MM22C / Z.8F 1 / AF.. MQ../ MM30C / Z.8F 1 / AF.. ¹⁾
3	DV100M4/TH	MF../ MM30C / Z.8F 1 / BW2 / AF.. MF../ MM3XC / Z.8F 1 / BW2 / AF.. ¹⁾	MQ../ MM30C / Z.8F 1 / BW2 / AF.. MQ../ MM3XC / Z.8F 1 / BW2 / AF.. ¹⁾
	DV100M4 / BMG / TH .	MF../ MM30C / Z.8F 1 / AF.. MF../ MM3XC / Z.8F 1 / AF.. ¹⁾	MQ../ MM30C / Z.8F 1 / AF.. MQ../ MM3XC / Z.8F 1 / AF.. ¹⁾

1) Combinations with increased short-term torque

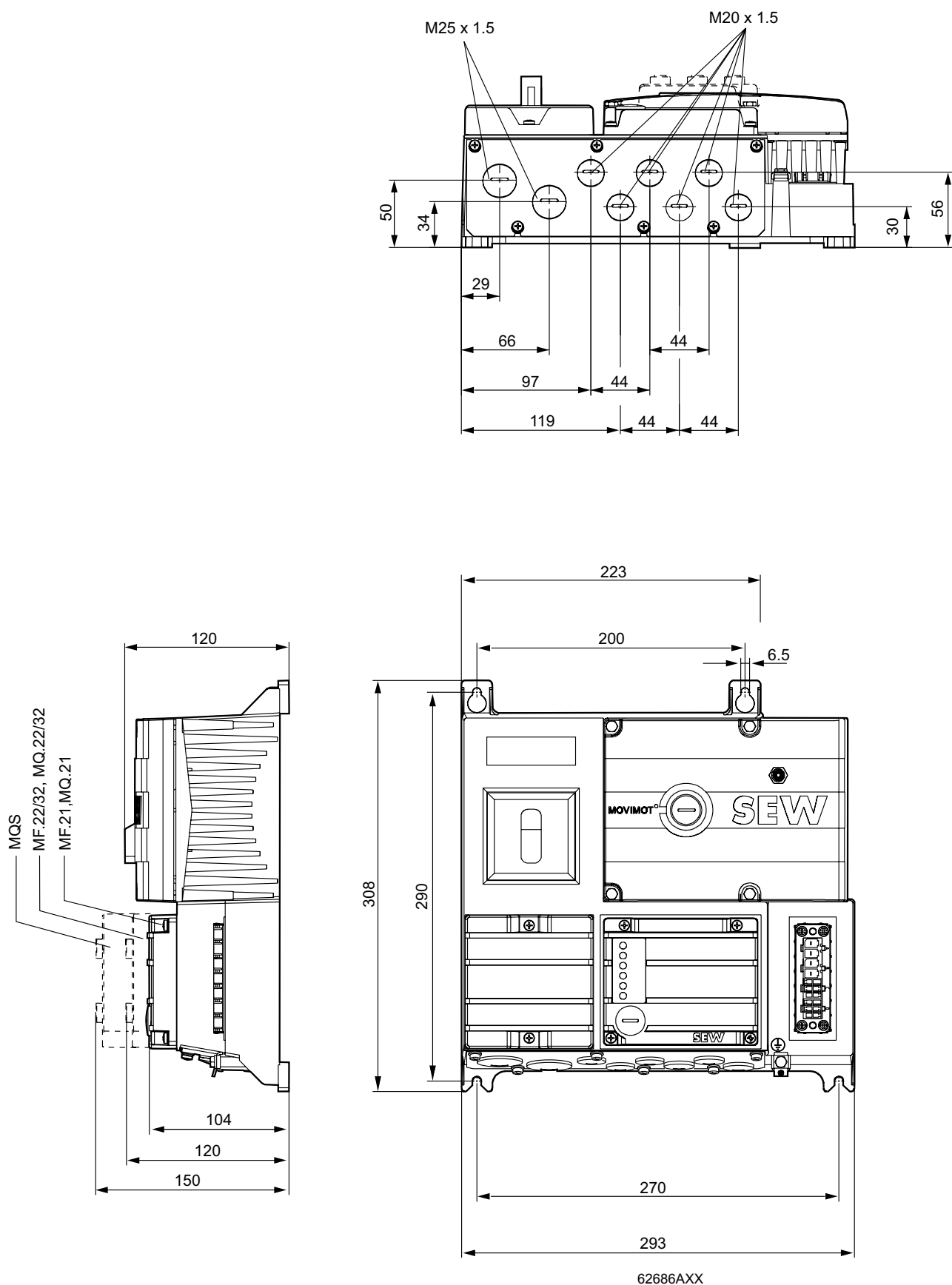


6.6.6 Hybrid cable for connecting Z.8. field distributors to motors

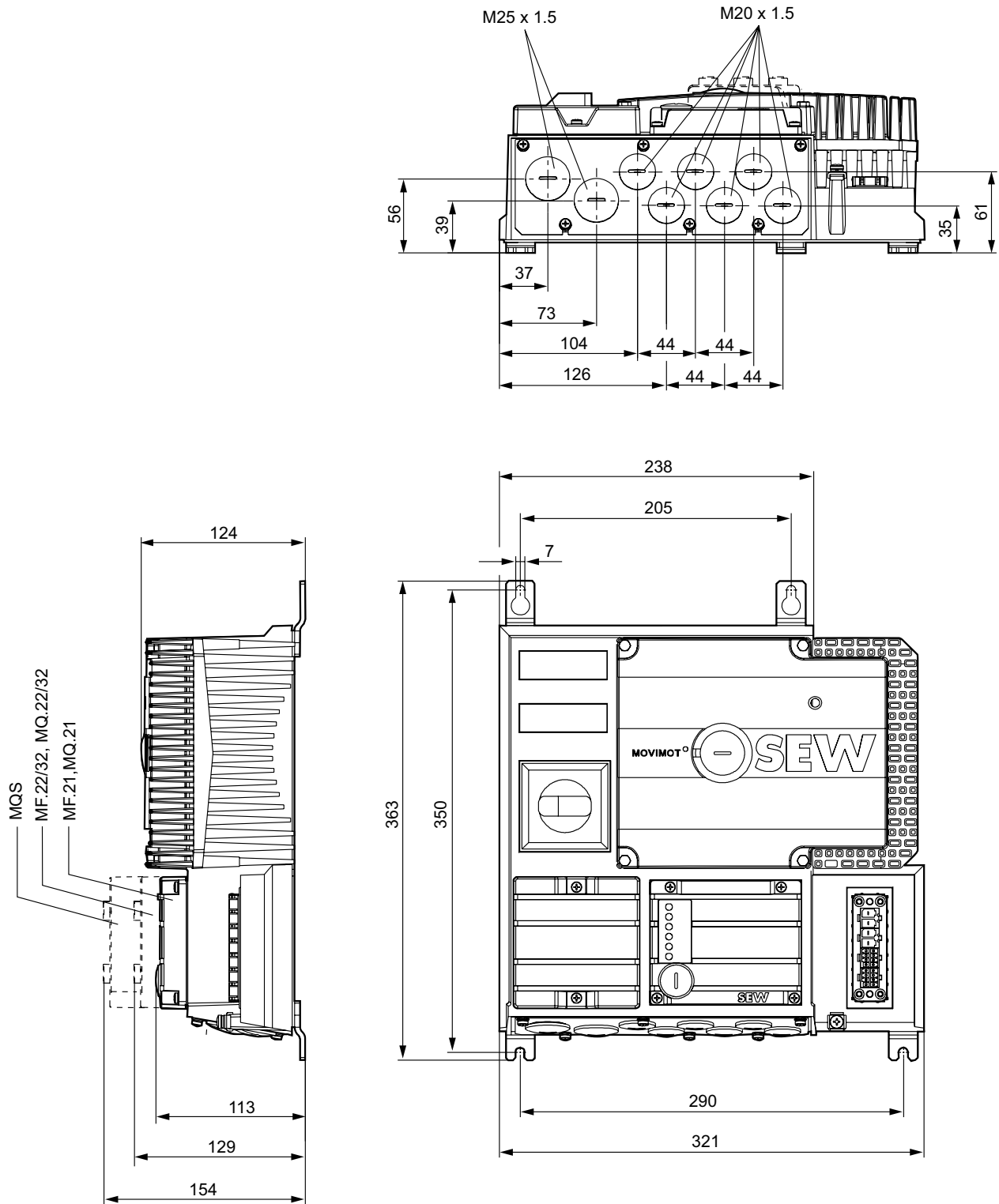
Field distributors	Hybrid cable	Cable type	Drive
Z.8	Part number 0186 742 3  High-priority type (preferred lengths 1.5 / 2 / 3 / 5 m) High-priority types with preferred length can usually be delivered at short notice	A	AC motors with cable gland 
	Part number: 0593 076 6  High-priority type (preferred lengths 1.5 / 2 / 3 / 5 m) High-priority types with preferred length can usually be delivered at short notice	A	AC motors with ASB4 plug connector 
	Part number 0186 741 5 	A	AC motors with APG4 plug connector 
	Part number: 0593 278 5 (⋈) Part number: 0816 325 1 (Δ) 	A	AC motors with IS plug connector, sizes DT71DT90 
	Part number: 0593 755 8 (⋈) Part number: 0816 326 X (Δ) 	A	AC motors with IS plug connector, size DV100 



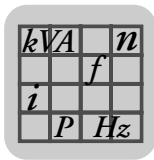
6.6.7 Dimension drawing for MF../MM03-MM15/Z.8., MQ../MM03-MM15/Z.8. field distributors (size 1)



6.6.8 Dimension drawing for MF../MM22-MM30/Z.8., MQ../MM22-MM30/Z.8. field distributors (size 2)



62687axx



6.7 SafetyDrive designs

6.7.1 Order information

	NOTES • The SafetyDrive design must be ordered explicitly. • For PROFIsafe field distributors, the SafetyDrive design is obligatory. It is always listed in the selection tables. • For all other field distributors, the order note: "–SafetyDrive" must be added if safe disconnection is required and the combination permits this.
---	---

6.7.2 Permitted SafetyDrive designs

Use only those components in safety applications that were designed and delivered for this purpose by SEW-EURODRIVE.

Only the following unit combinations are permitted for applications with safe disconnection of the drive according to stop category 0 or 1 to EN 60204-1 and fail-safe protection against restart according to EN 954-1, category 3:

- 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 permitted with Z16F, Z26F, Z26J only
AF1 Only permitted with Z36F
AF2, AF3 Only permitted with Z26F, Z26J

Connection module:

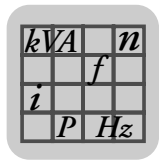
Z16F, Z26F, Z26J, Z36F

Fieldbus interface:

MFI21A, 22A, 32A Only permitted with Z16F
MQI21A, 22A, 32A
MFI23F, 33F

MFP21D, 22D, 32D Only permitted with Z26F, Z26J
MFP22H, 32H
MQP21D, 22D, 32D
MQS22F, 32F

MFD21A, 22A, 32A Only permitted with Z36F
MQD21A, 22A, 32A
MFO21A, 22A, 32A



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



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

Connection module:
Z17F, Z27F, Z37F

MOVIMOT® inverter:
MM03C .. MM15C

Fieldbus interface:

MFI21A, 22A, 32A	Only permitted with Z17F
MQI21A, 22A, 32A	
MFI23F, 33F	

MFP21D, 22D, 32D	Only permitted with Z27F
MFP22H, 32H	
MQP21D, 22D, 32D	
MQS22F, 32F	

MFD21A, 22A, 32A	Only permitted with Z37F
MQD21A, 22A, 32A	
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, Z28J
AF1, AGA, AGB	Only permitted with Z38F, Z38G
AF2, AF3	Only permitted with Z28F, Z28J

Connection module:
Z18F, Z28F, Z28J, Z38F, Z38G

MOVIMOT® inverter:
MM03C .. MM3XC

Fieldbus interface:

MFI21A, 22A, 32A	Only permitted with Z18F
MQI21A, 22A, 32A	
MFI23F, 33F	

MFP21D, 22D, 32D	Only permitted with Z28F, Z28J
MFP22H, 32H	
MQP21D, 22D, 32D	
MQS22F, 32F	

MFD21A, 22A, 32A	Only permitted with Z38F, Z38G
MQD21A, 22A, 32A	
MFO21A, 22A, 32A	