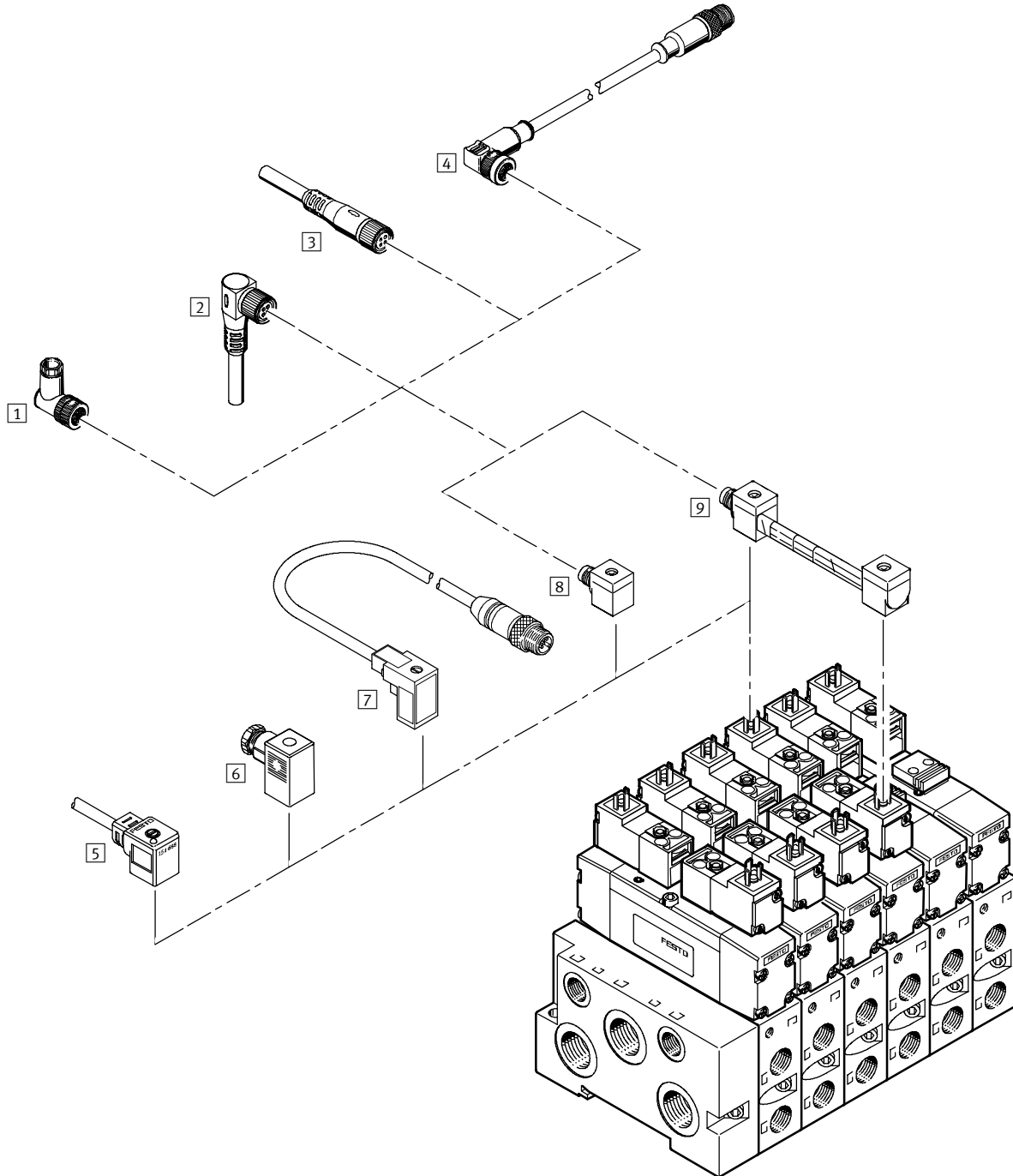


Electrical connection technology, for individual connection

Peripherals overview

FESTO

Valve terminal type 14 VDMA-ISO 24 563



Electrical connection technology, for individual connection

Peripherals overview

FESTO

Accessories		
	Brief description	→ Page
1	SEA-M12-4WD-PG7	Plug socket, angled
2	SIM-M12- ... WD-5-PU	Plug socket, angled, with cable
3	SIM-M12-... GD-5-PU	Plug socket, straight, with cable
4	KM12-M12-GSWD-1-4	Connecting cable, straight plug, angled socket
5	KMEB-1-24-2,5-LED	Plug socket, angled, with cable
6	MSSD-EB	Plug socket
7	KMEB-2-24-M12- ... -LED	Plug socket with cable
8	MSSD-EB-M12-MONO	Plug socket
9	MSSD-EB-M12-DUO	Plug socket

Accessories for valve terminals
Electrical connector systems

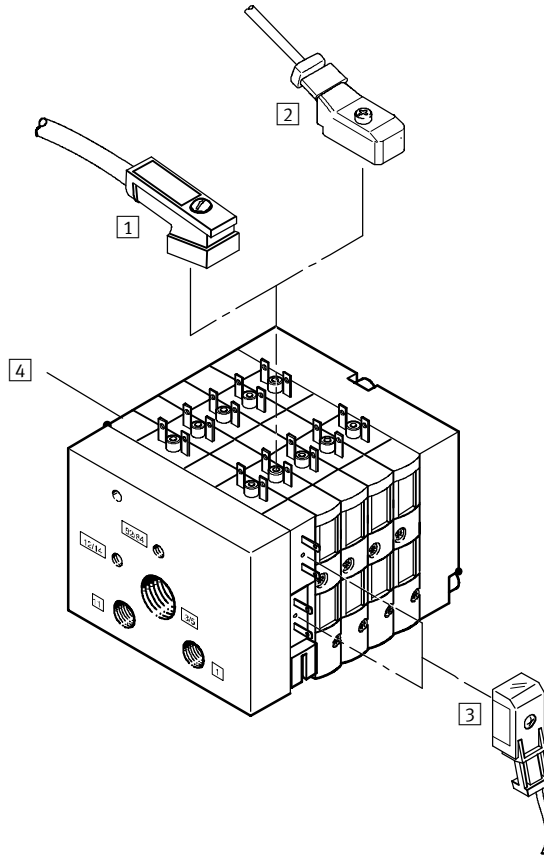
5.1

Electrical connection technology, for individual connection

Peripherals overview

FESTO

Valve terminal type CPV



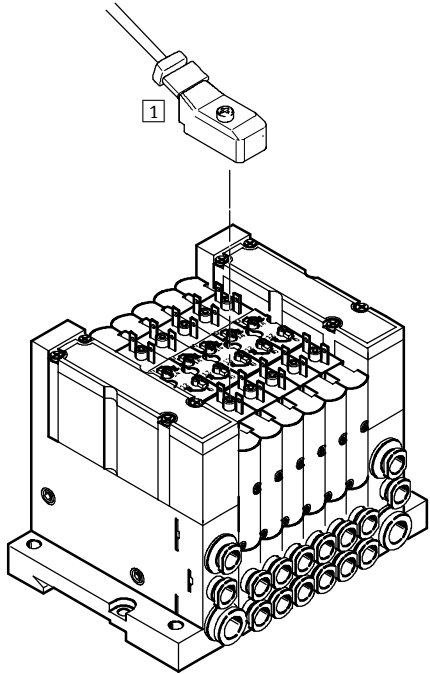
Accessories		
	Brief description	→ Page
1	KMEB-2-24-M12- ... -LED	Plug socket with cable
2	KMYZ-7-24- ... -LED-PUR	Plug socket with cable
3	KRP-1-24-...	Connecting cable for relay plate
4	CPV10-RP2	Relay plate
	-  - Note	4 / 2.1-1
	Only possible with CPV10/14. Used only with MP, FB, AS-interface, CPV Direct	4 / 2.1-1

Electrical connection technology, for individual connection

Peripherals overview

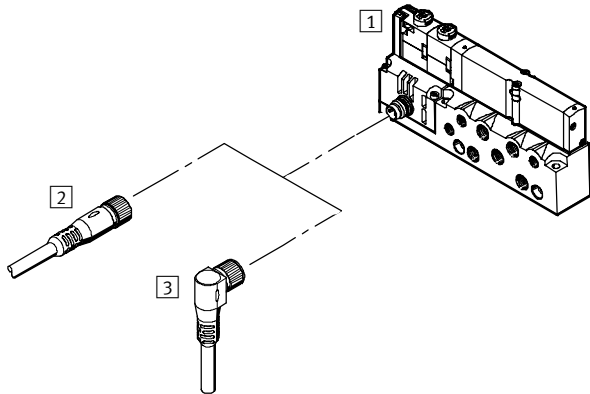
FESTO

Valve terminal type 12 CPA



Accessories		
	Brief description	→ Page
1	KMYZ-7-24- ... -LED-PUR	Plug socket with cable
		4 / 5.1-26

Valve terminal type 32 MPA



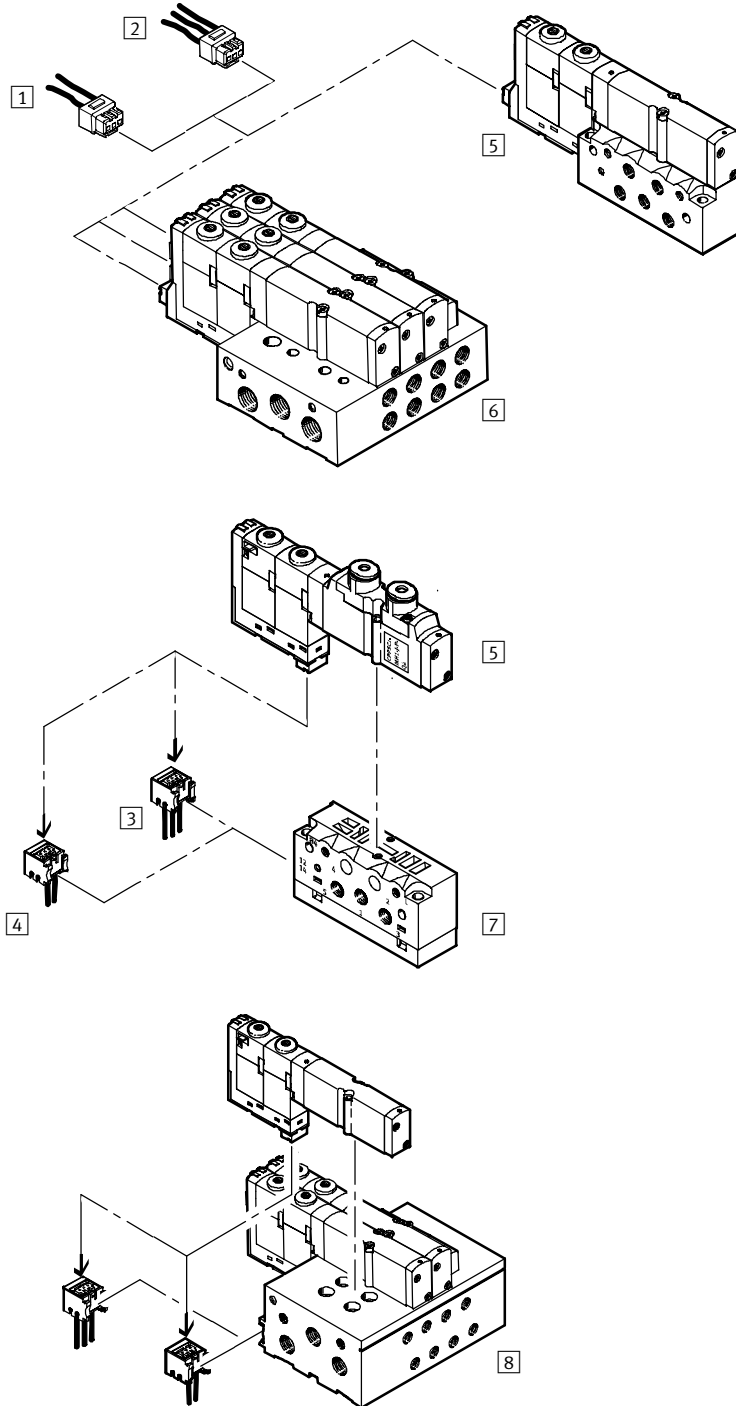
Accessories		
	Brief description	→ Page
1	VMPA-M1H- ... -M7-PI	Solenoid valve with individual sub-base
2	SIM-M8- ... -GD- ... -PU	Plug socket with cable, 4-pin, straight socket without LED
3	SIM-M8- ... -WD- ... -PU	Plug socket with cable, 4-pin, angled socket without LED
		4 / 5.1-21

Electrical connection technology, for individual connection

Peripherals overview

FESTO

Valve terminal type 82 CPA-SC



Electrical connection technology, for individual connection

Peripherals overview

FESTO

Accessories		
	Brief description	→ Page
1	KMH-...	Plug socket with cable, 1 coil
2	KMH-D-...	Plug socket with cable, 2 coils
3	MHAP-PI-...	Plug base, 1 coil
4	MHAP-PI-D-...	Plug base, 2 coils
5	CPASC-HC individual valve	Solenoid valve
6	CPASC-HC valve terminal	Solenoid valve
7	CPASC-PI individual valve	Solenoid valve
8	CPASC-PI valve terminal	Solenoid valve

Electrical connection technology, for individual connection

FESTO

Peripherals overview

Overview						
Cable/plug connector	Valve terminal					→ Page
	Type 14	Type 10	Type 12	Type 32	Type 82	
KM12-M12GSGD-2,5	■	–	–	–	–	4 / 5.1-24
KM12-M12GSGD-5	■	–	–	–	–	4 / 5.1-24
KM12-M12GSGD-1-4	■	–	–	–	–	4 / 5.1-24
KMEB-1-230AC-2,5	■	–	–	–	–	4 / 5.1-18
KMEB-1-230AC-5	■	–	–	–	–	4 / 5.1-18
KMEB-1-24-2,5-LED	■	–	–	–	–	4 / 5.1-18
KMEB-1-24-5-LED	■	–	–	–	–	4 / 5.1-18
KMEB-1-24-10-LED	■	–	–	–	–	4 / 5.1-18
KMEB-2-24-M12-0,5-LED	■	■ ¹⁾	–	–	–	4 / 5.1-18
KMEB-2-24-M12-2,5-LED	■	■ ¹⁾	–	–	–	4 / 5.1-18
KMH-0,5	–	–	–	–	■	4 / 5.1-30
KMH-1	–	–	–	–	■	4 / 5.1-30
KMH-2,5	–	–	–	–	■	4 / 5.1-30
KMH-5	–	–	–	–	■	4 / 5.1-30
KMH-D-0,5	–	–	–	–	■	4 / 5.1-30
KMH-D-1	–	–	–	–	■	4 / 5.1-30
KMH-D-2,5	–	–	–	–	■	4 / 5.1-30
KMH-D-5	–	–	–	–	■	4 / 5.1-30
KMYZ-7-24-2,5-LED-PUR	–	■ ²⁾	■	–	–	4 / 5.1-26
KMYZ-7-24-5-LED-PUR	–	■ ²⁾	■	–	–	4 / 5.1-26
KMYZ-7-24-10-LED-PUR	–	■ ²⁾	■	–	–	4 / 5.1-26
KRP-1-24-2,5	–	■ ³⁾	–	–	–	4 / 5.1-28
KRP-1-24-5	–	■ ³⁾	–	–	–	4 / 5.1-28
MHAP-PI-0,5	–	–	–	–	■	4 / 5.1-32
MHAP-PI-1	–	–	–	–	■	4 / 5.1-32
MHAP-PI-D-0,5	–	–	–	–	■	4 / 5.1-32
MHAP-PI-D-1	–	–	–	–	■	4 / 5.1-32
MSSD-EB	■	–	–	–	–	4 / 5.1-15
MSSD-EB-M12-MONO	■	–	–	–	–	4 / 5.1-15
MSSD-EB-M12-DUO	■	–	–	–	–	4 / 5.1-15
SIM-M12-4WD-5-PU	■	–	–	–	–	4 / 5.1-21
SIM-M12-4GD-5-PU	■	–	–	–	–	4 / 5.1-21
SIM-M12-5GD-2,5-PU	■	–	–	–	–	4 / 5.1-21
SIM-M12-5GD-5-PU	■	–	–	–	–	4 / 5.1-21
SIM-M8-4GD-2,5-PU	–	–	–	■	–	4 / 5.1-21
SIM-M8-4GD-5-PU	–	–	–	■	–	4 / 5.1-21
SIM-M8-4WD-2,5-PU	–	–	–	■	–	4 / 5.1-21
SIM-M8-4WD-5-PU	–	–	–	■	–	4 / 5.1-21
SEA-M12-4WD-PG7	■	–	–	–	–	4 / 5.1-152

1) CPV18 only

2) CPV/CPA10/14 only

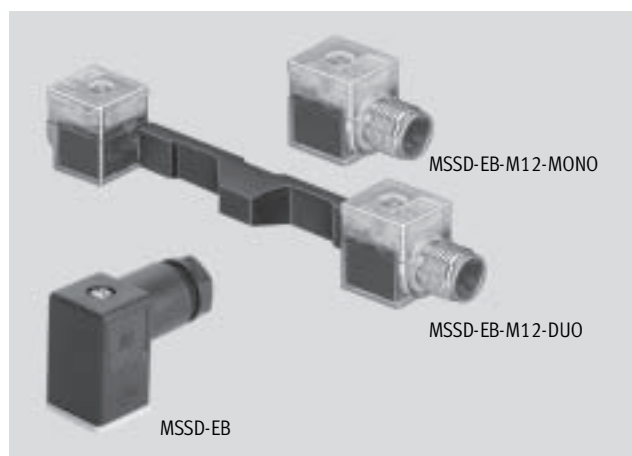
3) CPV10/14 only

Electrical connection technology, for individual connection

Technical data – MSSD-EB

FESTO

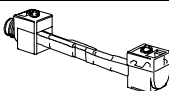
- Plug socket for connecting individual valves (for valve terminal type 14)
- Can be fabricated with any cable lengths or M12 push-in connector for pre-assembled cable
- 2-pin plug socket
- MSSD-EB-M12: with LED



Accessories for valve terminals
Electrical connector systems

5.1

General technical data		
Type	MSSD-EB	MSSD-EB-M12
Type of mounting	M2.5 central screw	M2.5 central screw
Mounting position	Any	Any
Operating voltage range	[V] 250 AC	–
	[V] 300 DC	24 DC
Current-carrying capacity	[A] 6	2x0.12
Cable gland fitting	Pg7	–
Cable diameter	[mm] 6.5	–
Max. wire cross section	[mm ²] 0.75	–
Protection class to EN 60 529	IP65 (assembled)	IP65 (assembled)
Material of housing	Polyamide	Polyamide
Material of contacts	Brass	Brass
Material	–	Polyvinyl chloride
Ambient temperature	[°C] –40 ... +90	–10 ... +50

Ordering data					
	Signal status display LED	Electrical connection	Product weight [g]	Type	Part No.
	–	Angled socket, 2-pin	12	MSSD-EB	151 687
	■	Angled socket, 2-pin; straight plug, 2-pin, M12	22	MSSD-EB-M12-MONO	188 024
	■	2 angled sockets, 2-pin; straight plug, 3-pin, M12	36	MSSD-EB-M12-DUO	188 025

Electrical connection technology, for individual connection

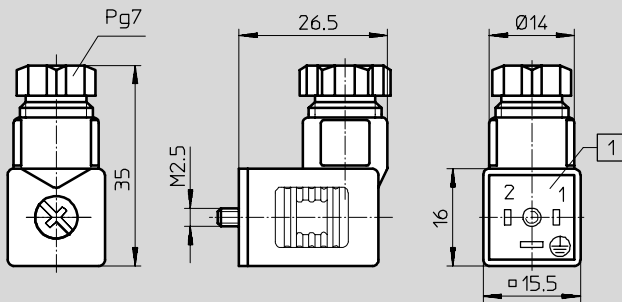
Technical data – MSSD-EB

FESTO

Dimensions

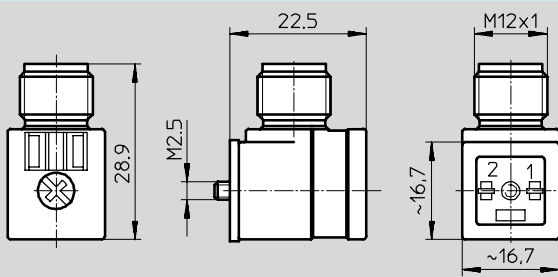
Download CAD data → www.festo.com/en/engineering

MSSD-EB

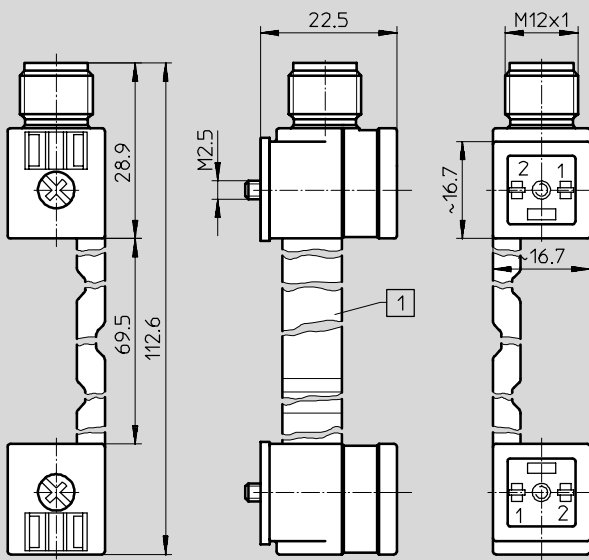


1 Insert rotatable in steps of 90°

MSSD-EB-M12-MONO



MSSD-EB-M12-DUO



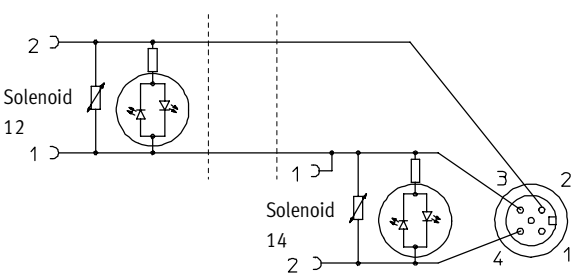
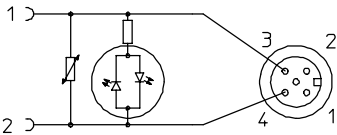
1 Cover is attached subsequently

Electrical connection technology, for individual connection

Technical data – MSSD-EB



Circuit diagram	
MSSD-EB-M12-MONO	MSSD-EB-M12-DUO

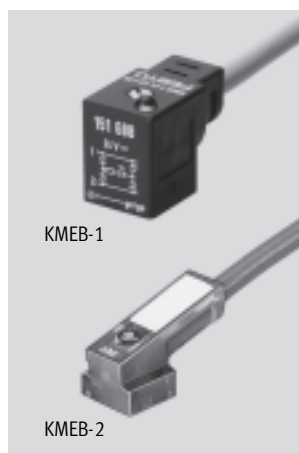


Electrical connection technology, for individual connection

Technical data – KMEB

FESTO

- Plug socket with cable for connecting individual valves
- Pre-assembled
- Cable lengths: 2.5 m, 5 m and 10 m
- 3-pin plug socket
- 24 V DC: with LEDs and protective circuit
- Not suitable for chain link trunking



General technical data			
Type	KMEB-1-...	KMEB-2-...	KMEB-2-24-M12-...
Electrical connection	Angled socket, 3-pin	Angled socket, 3-pin	Angled socket, 3-pin; straight plug, 5-pin, M12
Type of mounting	M2.5 central screw	M2.5 central screw	M2.5 central screw; threaded connector M12
Mounting position	Any	Any	Any
Constructional design [mm ²]	3x0.5	3x0.75	3x0.5
Cable diameter [mm]	5.2	6.2	5
Protection class to EN 60 529	IP65 (assembled)	IP65 (assembled)	IP65 (assembled)
Material of housing	Polyamide	Polymer	Polyurethane
Material of contacts	Silver-plated bronze	Tin-plated bronze	Tin-plated brass Silver-plated brass
Material of cable sheath	Polyvinyl chloride	Polyurethane	Polyurethane
Ambient temperature [°C]	-20 ... +80	-20 ... +80	-5 ... +50

Ordering data						
	Signal status display LED	Operating voltage [V]	Product weight [g]	Cable length [m]	Type	Part No.
	■	24 DC	125	2.5	KMEB-1-24-2,5-LED	151 688
	■	24 DC	230	5	KMEB-1-24-5-LED	151 689
	■	24 DC	460	10	KMEB-1-24-10-LED	193 457
		230 AC	125	2.5	KMEB-1-230AC-2,5	151 690
		230 AC	230	5	KMEB-1-230-5	151 691
	■	24 DC	200	2.5	KMEB-2-24-2,5-LED	174 844
	■	24 DC	400	5	KMEB-2-24-5-LED	174 845
		230 AC	200	2.5	KMEB-2-230AC-2,5	174 846
		230 AC	400	5	KMEB-2-230-5	174 847
	■	24 DC	54	0.5	KMEB-2-24-M12-0,5-LED	177 677
	■	24 DC	215	2.5	KMEB-2-24-M12-2,5-LED	177 679

Electrical connection technology, for individual connection

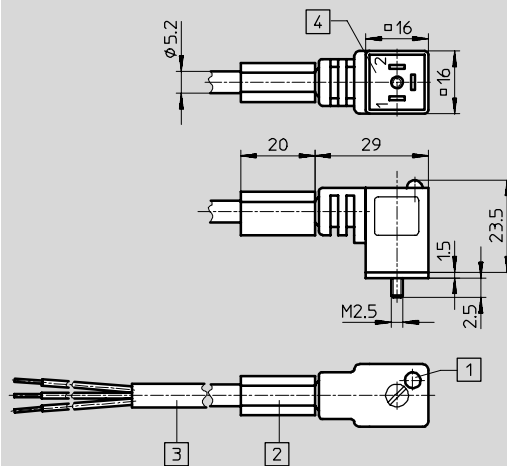
Technical data – KMEB

FESTO

Dimensions

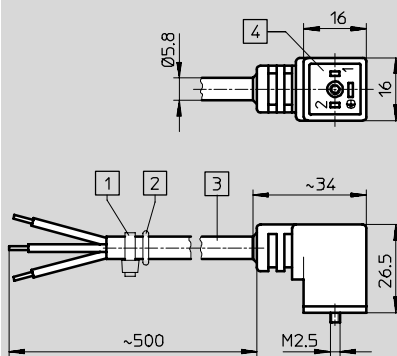
Download CAD data → www.festo.com/en/engineering

KMEB-1-24-...



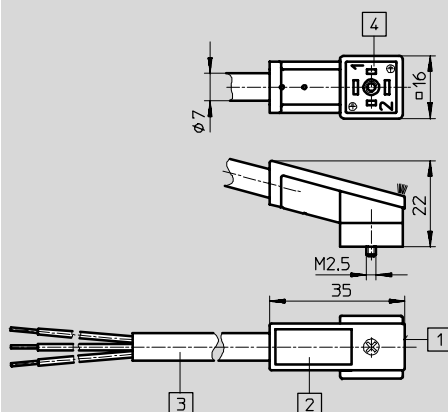
- 1 LED illuminated area
- 2 Inscription label
- 3 3-core cable, 2.5 m, 5 m or 10 m (3x0.5 mm²)
- 4 Connection pattern to DIN 43 650 type C

KMEB-1-230-...



- 1 Cable binder
- 2 O-ring 5x1.5
- 3 3-core cable, 2.5 m or 5 m (3x0.5 mm²)
- 4 Connection pattern to DIN 43 650 type C

KMEB-2-...

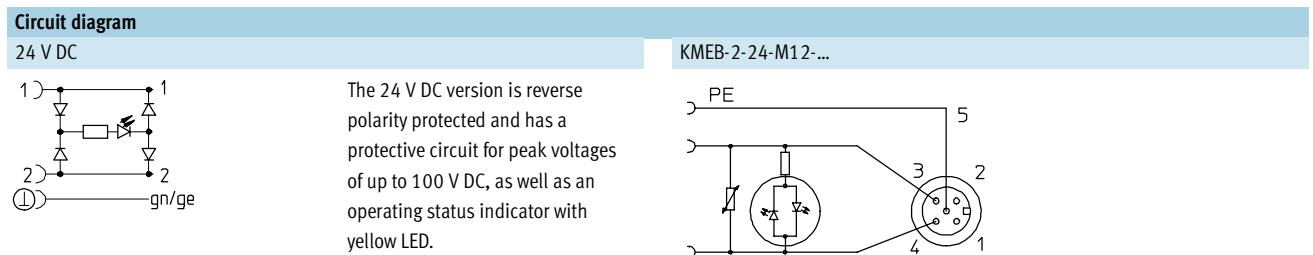
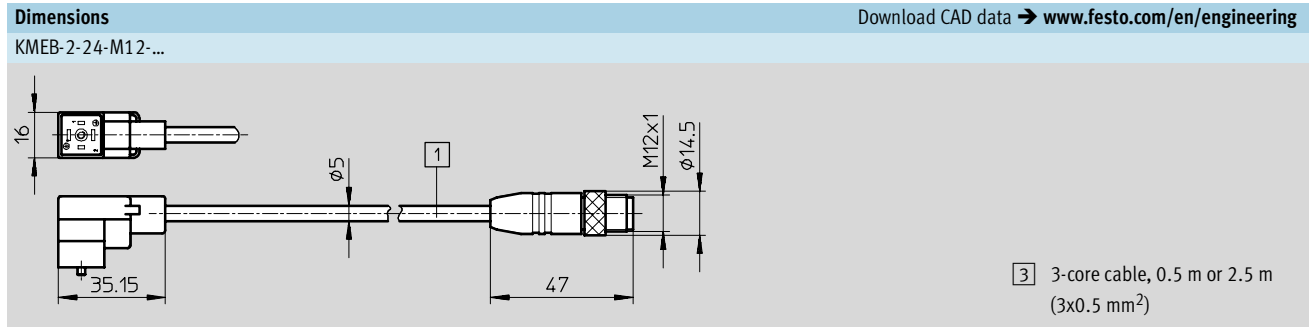


- 1 LED illuminated area (integrated)
- 2 Inscription label
- 3 3-core cable, 2.5 m or 5 m (3x0.75 mm²)
- 4 Connection pattern to DIN 43 650 type C

Electrical connection technology, for individual connection

Technical data – KMEB

FESTO

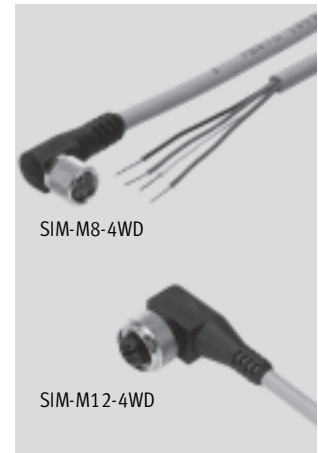
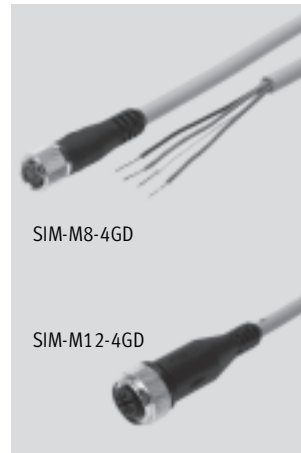


Electrical connection technology, for individual connection

Technical data – SIM

FESTO

- Plug socket with cable for connecting individual valves or sensors (signal generators)
- Pre-assembled
- Cable lengths of 2.5 m or 5 m
- 4-pin or 5-pin plug socket
- Not suitable for chain link trunking



Accessories for valve terminals
Electrical connector systems

5.1

General technical data		
Type	SIM-...	
Type of mounting	Union nut	
Mounting position	Any	
Operating voltage range	[V]	45 AC
	[V]	70 DC
Protection class to EN 60 529	IP65/IP67 (assembled)	
Material of housing	Polyurethane	
Material of contacts	Nickel-plated/gold-plated bronze	
Material of union nut	Nickel-plated/chrome-plated brass	
Material of cable sheath	Polyurethane	
Ambient temperature	[°C]	–40 ... +70
Ambient temperature of flexible cable installation	[°C]	–5 ... +70

Ordering data								
	Electrical connection	Current-carrying capacity [A]	Constructional design [mm ²]	Cable diameter [mm]	Product weight [g]	Cable length [m]	Type	Part No.
	Straight socket, 4-pin, M8	2.8	4x0.25	4.5	86	2.5	SIM-M8-4GD-2,5-PU	158 960
	Straight socket, 4-pin, M8	2.8	4x0.25	4.5	159	5	SIM-M8-4GD-5-PU	158 961
	Angled socket, 4-pin, M8	2.8	4x0.25	4.5	85	2.5	SIM-M8-4WD-2,5-PU	158 962
	Angled socket, 4-pin, M8	2.8	4x0.25	4.5	154	5	SIM-M8-4WD-5-PU	158 963
	Straight socket, 4-pin, M12	2.8	4x0.25	4.5	158	5	SIM-M12-4GD-5-PU	164 259
	Angled socket, 4-pin, M12	2.8	4x0.25	4.5	162	5	SIM-M12-4WD-5-PU	164 258
	Straight socket, 5-pin, M12	4	5x0.25	5	96	2.5	SIM-M12-5GD-2,5-PU	175 715
	Straight socket, 5-pin, M12	4	5x0.25	5	191	5	SIM-M12-5GD-5-PU	175 716

Electrical connection technology, for individual connection

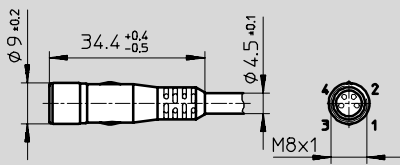
Technical data – SIM

FESTO

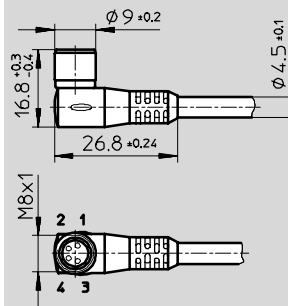
Dimensions

Download CAD data → www.festo.com/en/engineering

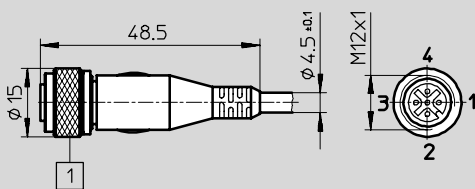
SIM-M8-4GD



SIM-M8-4WD

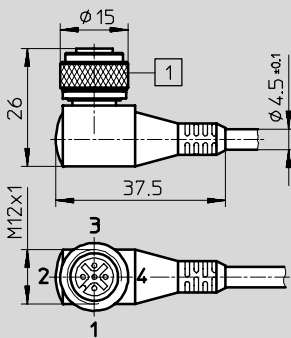


SIM-M12-4GD



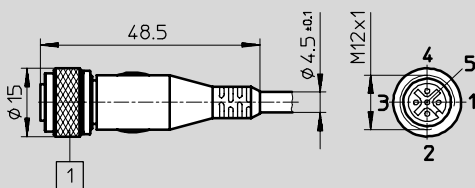
1 M12 union nut

SIM-M12-4WD



1 M12 union nut

SIM-M12-5GD

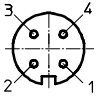
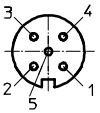


1 M12 union nut

Electrical connection technology, for individual connection

Technical data – SIM

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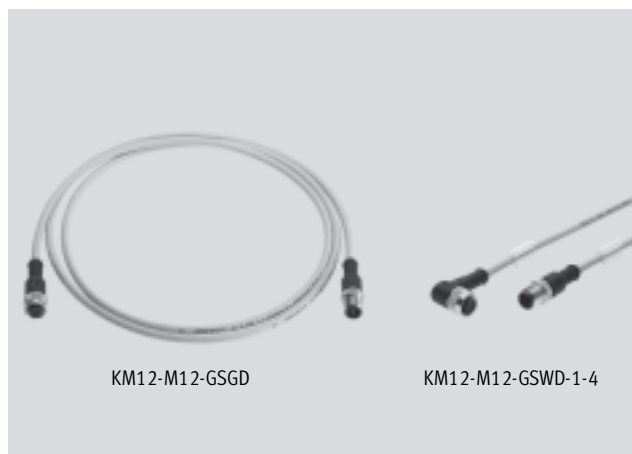
Wiring allocation (socket view)		
SIM-M8, 4-pin		
	Pin	Core colour
	1	Brown
	2	White
	3	Blue
	4	Black
SIM-M12, 4-pin		
	Pin	Core colour
	1	Brown
	2	White
	3	Blue
	4	Black
SIM-M12, 5-pin		
	Pin	Core colour
	1	Brown
	2	White
	3	Blue
	4	Black
	5	Grey

Electrical connection technology, for individual connection

Technical data – KM12-M12

FESTO

- Plug socket with cable for connecting individual valves or sensors (generators)
- Pre-assembled at both ends
- Cable lengths 1 m, 2.5 m or 5 m
- 4-pin plug socket
- Not suitable for chain link trunking



General technical data		
Type		KM12-M12-...
Type of mounting		M12 union nut/threaded connector
Mounting position		Any
Operating voltage range	[V]	Max. 60 AC
	[V]	Max. 75 DC
Protection class to EN 60 529		IP67 (assembled)
Material of housing		Polyurethane
Material of contacts		Gold-plated brass
Material of union nut		Nickel-plated brass
Material of cable sheath		Polyurethane
Ambient temperature	[°C]	–30 ... +70
Ambient temperature of flexible cable installation	[°C]	–5 ... +70

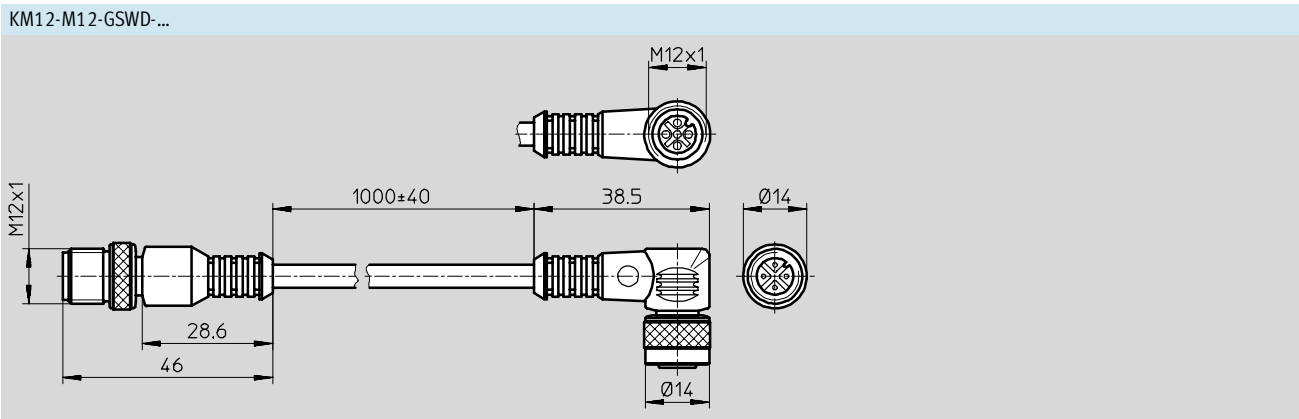
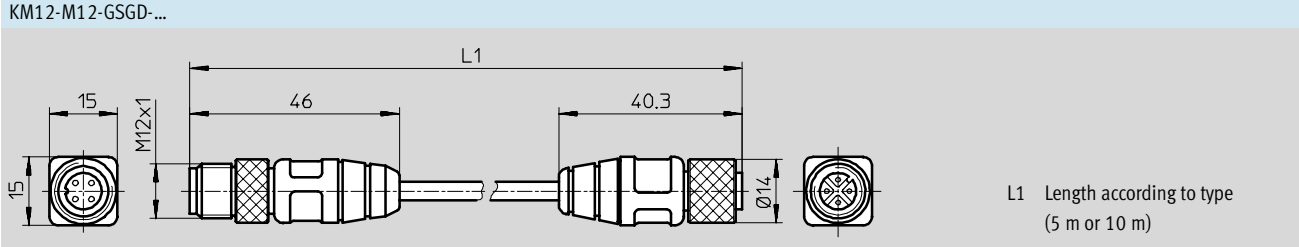
Ordering data							
	Electrical connection	Current-carrying capacity [A]	Construc-tional design [mm ²]	Product weight [g]	Cable length [m]	Type	Part No.
	Straight plug, 4-pin – angled socket, 4-pin	3.8	4x0.34	66	1	KM12-M12-GSWD-1-4	185 499
	Straight plug, 4-pin – straight socket, 4-pin	3.8	4x0.25	103	2.5	KM12-M12-GSGD-2,5	18 684
	Straight plug, 4-pin – straight socket, 4-pin	2.8	4x0.25	173	5	KM12-M12-GSGD-5	18 686

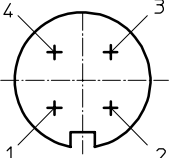
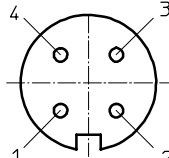
Electrical connection technology, for individual connection

Technical data – KM12-M12

FESTO

Dimensions Download CAD data → www.festo.com/en/engineering



Wiring allocation (plug/socket view)																										
KM12-M12																										
View – plug	Wiring allocation	View – socket																								
	<table><tr><td>+ (24 V)</td><td>1</td><td>•</td><td>Brown</td><td>→</td><td>C 1</td></tr><tr><td>- (0 V)</td><td>3</td><td>•</td><td>Blue</td><td>→</td><td>C 3</td></tr><tr><td>x (Signal)</td><td>4</td><td>•</td><td>Black</td><td>→</td><td>C 4</td></tr><tr><td>x+1 (Signal x+1)</td><td>2</td><td>•</td><td>White</td><td>→</td><td>C 2</td></tr></table>	+ (24 V)	1	•	Brown	→	C 1	- (0 V)	3	•	Blue	→	C 3	x (Signal)	4	•	Black	→	C 4	x+1 (Signal x+1)	2	•	White	→	C 2	
+ (24 V)	1	•	Brown	→	C 1																					
- (0 V)	3	•	Blue	→	C 3																					
x (Signal)	4	•	Black	→	C 4																					
x+1 (Signal x+1)	2	•	White	→	C 2																					

Electrical connection technology, for individual connection

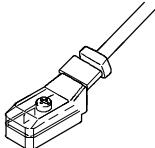
Technical data – KMYZ-7

FESTO

- Plug socket with cable for connecting individual valves CPV/CPA10/14
- Pre-assembled
- Cable lengths: 2.5 m, 5 m and 10 m
- 2-pin plug socket
- With LEDs and protective circuit
- With integrated reduction of holding current
- Reverse polarity protected
- Not suitable for chain link trunking



General technical data	
Type	KMYZ-7-...
Electrical connection	Angled socket, 2-pin
Type of mounting	Self-tapping central screw KB 18x7
Mounting position	Any
Operating voltage range [V]	20 ... 26 DC
Current-carrying capacity [A]	1
Cable diameter [mm]	3.4
Protection class to EN 60 529	IP65 (assembled)
Material of housing	Polyamide
Material of contacts	Bronze
Material of cable sheath	Polyurethane
Ambient temperature [°C]	-10 ... +50

Ordering data						
	Signal status display LED	Constructional design [mm ²]	Product weight [g]	Cable length [m]	Type	Part No.
	■	2x0.25	43	2.5	KMYZ-7-24-2,5-LED-PUR	193 683
	■	2x0.25	82	5	KMYZ-7-24-5-LED-PUR	193 685
	■	2x0.25	155	10	KMYZ-7-24-10-LED-PUR	196 070

Electrical connection technology, for individual connection

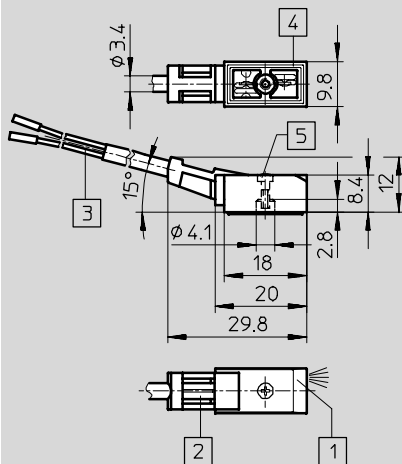
Technical data – KMYZ-7

FESTO

Dimensions

Download CAD data → www.festo.com/en/engineering

KMYZ-7-...



- 1 LED illuminated area
- 2 Location for identification plate
- 3 2-core cable 2.5 m, 5 m or 10 m (2x0.25 mm²)
- 4 Connection pattern for MZC
- 5 Mounting screw

Electrical connection technology, for individual connection

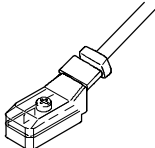
Technical data – KRP

FESTO

- Plug socket with cable for connecting relay plates, (valve terminal CPV10 and CPV14)
- Pre-assembled
- Cable lengths: 2.5 m and 5 m
- 2-pin plug socket
- Not suitable for chain link trunking



General technical data	
Type	KRP-...
Electrical connection	Angled socket, 2-pin
Type of mounting	Self-tapping central screw KB 18x9
Mounting position	Any
Operating voltage range [V]	20 ... 26 DC
Current-carrying capacity [A]	1
Cable diameter [mm]	3.5
Protection class to EN 60 529	IP65 (assembled)
Material of housing	Polyurethane
Material of contacts	Bronze
Material of cable sheath	Polyvinyl chloride
Ambient temperature [°C]	-10 ... +50

Ordering data					
	Constructional design	Product weight	Cable length	Type	Part No.
	[mm ²]	[g]	[m]		
	2x0.25	49	2.5	KRP-1-24-2,5	165 612
	2x0.25	94	5	KRP-1-24-5	165 613

Electrical connection technology, for individual connection

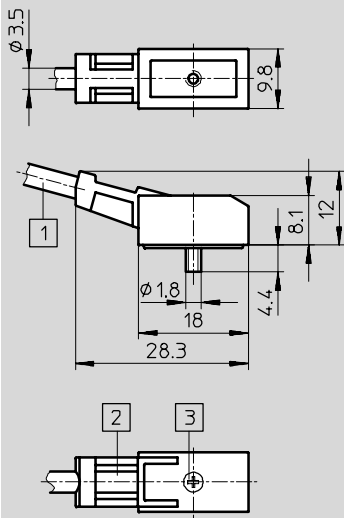
Technical data – KRP

FESTO

Dimensions

Download CAD data → www.festo.com/en/engineering

KRP-...



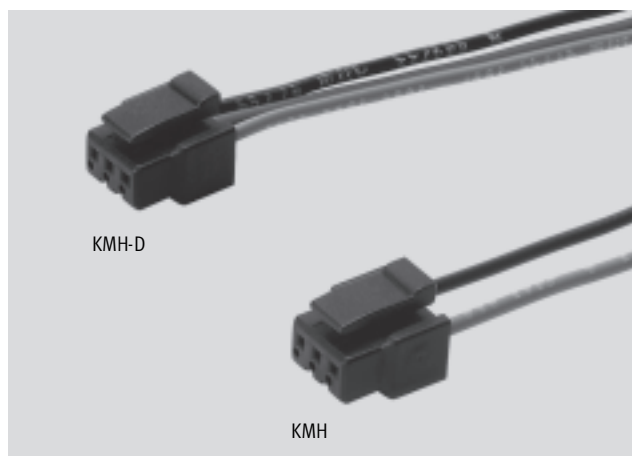
- 1 2-core cable 2.5 m or 5 m
(2x0.25 mm²)
- 2 Location for identification plate
- 3 Mounting screw

Electrical connection technology, for individual connection

Technical data – KMH

FESTO

- Plug socket with cable for the horizontal connection of individual valves (type CPA-SC1)
- Pre-assembled
- Cable lengths 0.5 m, 1 m, 2.5 m or 5 m
- 3-pin plug socket
- Not suitable for chain link trunking
- KMH-D for 2 coils



General technical data		
Type	KMH-...	
Electrical connection	3-pin plug socket	
Type of mounting	Clip	
Mounting position	Any	
Operating voltage	[V]	60 DC
Current-carrying capacity	[A]	3
Cable diameter	[mm]	1.3
Protection class to EN 60 529	IP40	
Material of housing	Polyacetal	
Material of contacts	Tin-plated bronze	
Material of cable sheath	Polyvinyl chloride	
Ambient temperature	[°C]	–40 ... +105

Ordering data					
	Constructional design [mm ²]	Product weight [g]	Cable length (L1) [m]	Type	Part No.
	2x0.14	4	0.5	KMH-0,5	197 263
	2x0.14	7	1	KMH-1	197 264
	2x0.14	17	2.5	KMH-2,5	527 400
	2x0.14	31	5	KMH-5	527 401
	3x0.14	6	0.5	KMH-D-0,5	527 396
	3x0.14	11	1	KMH-D-1	527 397
	3x0.14	24	2.5	KMH-D-2,5	527 398
	3x0.14	46	5	KMH-D-5	527 399

Electrical connection technology, for individual connection

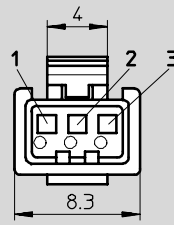
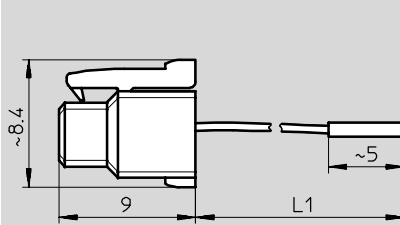
Technical data – KMH

FESTO

Dimensions

Download CAD data → www.festo.com/en/engineering

Type KMH-...



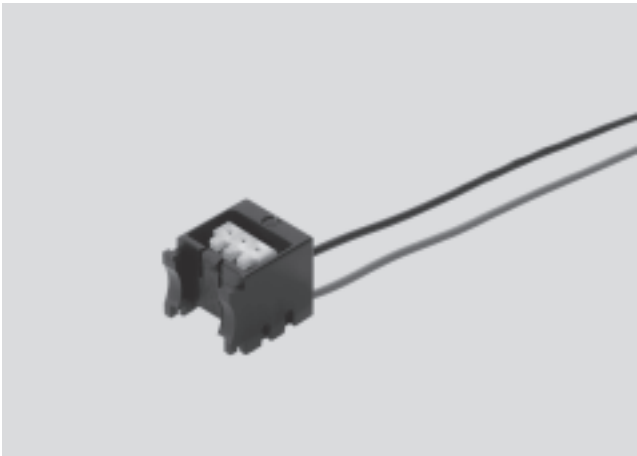
- 1 Pin 1, core colour black
- 2 Pin 2, core colour blue
- 3 Pin 3, core colour red
- L1 Length according to type
(0.5 m, 1 m, 2.5 m or 5 m)

Electrical connection technology, for individual connection

Technical data – MHAP-PI



- Plug base with cable for connecting individual valves (type CPA-SC1, plug-in)
- Pre-assembled
- Cable lengths 0.5 m or 1 m
- 3-pin plug socket
- Not suitable for chain link trunking



General technical data		
Type	MHAP-PI-...	
Electrical connection	3-pin plug socket	
Type of mounting	Clip	
Mounting position	Any	
Operating voltage	[V]	60 DC
Current-carrying capacity	[A]	3
Cable diameter	[mm]	1
Protection class to EN 60 529	IP40	
Material of housing	Polyamide	
Material of contacts	Tin-plated copper	
Ambient temperature	[°C]	–20 ... +80
Storage temperature	[°C]	–20 ... +50

Ordering data					
	Constructional design [mm ²]	Product weight [g]	Cable length (L1) [m]	Type	Part No.
	3x0.14	5	0.5	MHAP-PI-D-0,5	529 116
	3x0.14	8	1	MHAP-PI-D-1	527 395
	2x0.14	4	0.5	MHAP-PI	197 260
	2x0.14	6	1	MHAP-PI-1	532 182

Electrical connection technology, for individual connection

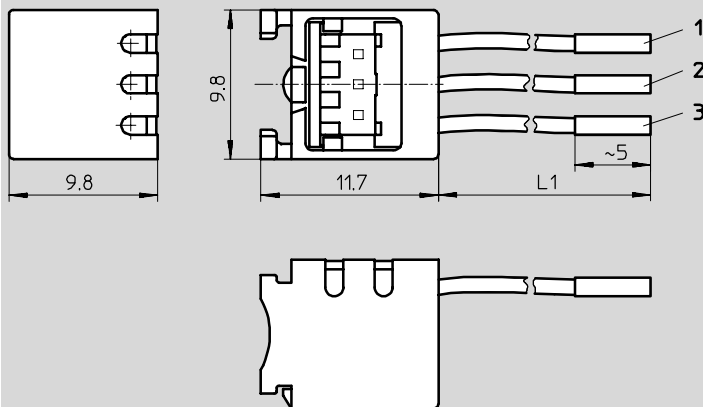
Technical data – MHAP-PI

FESTO

Dimensions

Download CAD data → www.festo.com/en/engineering

Type MHAP-PI-...



- 1 Pin 1, core colour black
- 2 Pin 2, core colour blue
- 3 Pin 3, core colour red
- L1 Length according to type
(0.5 m or 1 m)

Accessories for valve terminals
Electrical connector systems

5.1