

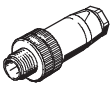
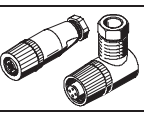
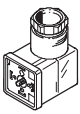
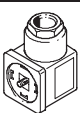


- Plug sockets
- Push-in T-connectors
- Plug sockets with cable
- Connecting cables
- Designs with switching status display
- Weld field immune designs

Plug sockets and push-in T-connectors

Product range overview

FESTO

Function	Design	Type	Electrical connection	Connection direction		Switching status display via LED	→ Page
				In-line	Lateral		
Plug sockets	For pressure sensors and inductive proximity sensors						
		SEA	M8x1, 3-pin	■	–	–	4 / 5.1-152
			M12x1, 4-pin	■	–	–	4 / 5.1-154
			M12x1, 4- or 5-pin	■	–	–	4 / 5.1-156
		SIE	M12x1, 4-pin	■	■	_1)	4 / 8.3-3
	For pressure switches PEV-¼-A-SW27						
		PEV-¼-A-WD	For integral plugs, 4-pin	–	■	–	4 / 8.3-4
	For pressure switches PEV-¼-...-B-...						
		PEV-¼-WD-LED-24	For integral plugs, 4-pin	–	■	■	4 / 8.3-5
		PEV-¼-WD-LED-230		–	■	■	
		MSSD-C-4P	For integral plugs, 4-pin	–	■	–	4 / 8.3-6

1) Available as accessory for SIE-WD-TR

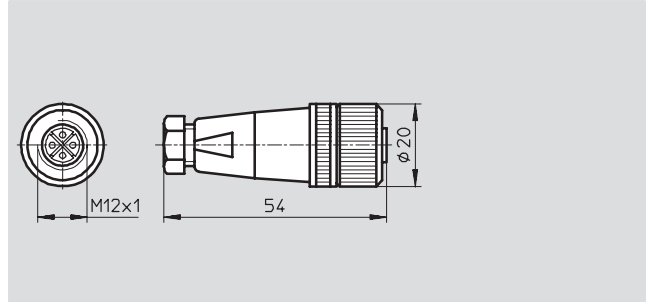
Function	Design	Type	Electrical connection		Switching status display via LED	→ Page
			Left	Right		
Push-in T-connectors		NEDU	Sockets M8x1, 3-pin	Plug M8x1, 4-pin	–	4 / 8.3-8
				Plug M12x1, 4-pin	–	
			Sockets M12x1, 3-pin	Plug M12x1, A-coded, 5-pin	–	

Plug sockets SIE

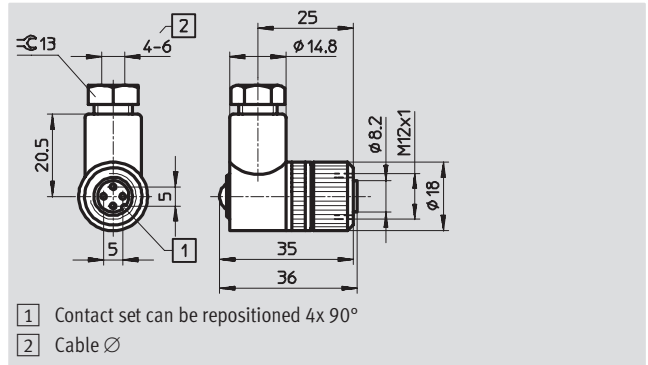
Technical data

FESTO

Sensor socket SIE-GD



Angled plug socket SIE-WD-TR



General technical data					
Connection direction			In-line	Lateral	
Electrical data					
Electrical connection			Straight socket, M12x1, 4-pin		Angled socket, M12x1, 4-pin
Operating voltage range	AC	[V]	≤125		
	DC	[V]	≤150		
Current-carrying capacity		[A]	3		
Cable connection			Screw terminal		
Perm. cable diameter		[mm]	4 ... 6		
Max. wire cross section		[mm ²]	0.75		0.5
Ready status display			-		LED green (accessory)
Protection class to EN 60 529			IP67 (assembled)		
Ambient temperature		[°C]	−40 ... +85		
Materials					
Housing			Polyamide		

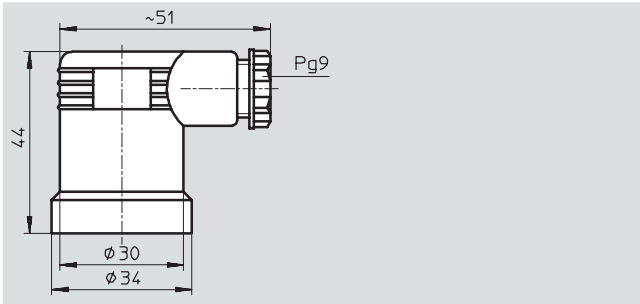
Ordering data			
		Part No.	Type
Connection direction		In-line	Lateral
Plug socket		18 494	SIE-GD
Ready status display		12 956	SIE-WD-TR
		12 957	SIE-LP-LED-GR

Plug sockets PEV

Technical data



Angled plug socket PEV-1/4-A-WD



General technical data				
Electrical data				
Electrical connection			Angled socket, 4-pin	
Operating voltage range	AC	[V]	≤ 230	
	DC	[V]	≤180	
Cable connection			Screw terminal	
Perm. cable diameter		[mm]	4.5 ... 9	
Max. wire cross section		[mm²]	1.5	
Protection class to EN 60 529			IP65 (assembled)	
Ambient temperature		[°C]	-40 ... +90	
Weight		[g]	55	
Materials				
Housing			Fibreglass reinforced polyamide	
Contacts			Nickel plated brass	

Ordering data				
For pressure switches	Operating voltage range		Part No.	Type
	[V DC]	[V AC]		
PEV-1/4-A-SW27	≤ 180	≤ 230	161 209	PEV-1/4-A-WD

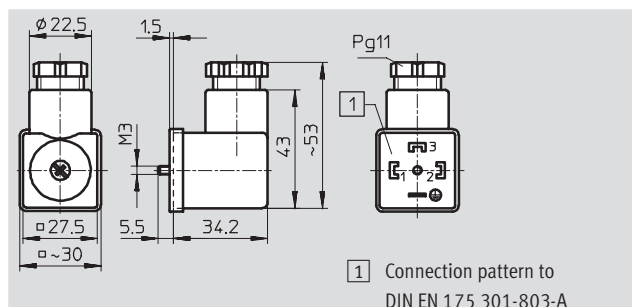
Plug sockets PEV

Technical data – With switching status display

FESTO

Angled plug socket

PEV-1/4-WD-LED-...



General technical data			
		PEV-1/4-WD-LED-24	PEV-1/4-WD-LED-230
Electrical data			
Electrical connection		Angled socket, 4-pin	
Operating voltage range	AC	[V]	–
	DC	[V]	≤ 230
Current-carrying capacity	[A]		15 ... 30
			≤ 180
Cable connection		Screw terminal	
Perm. cable diameter		[mm]	4.5 ... 11
Max. wire cross section		[mm ²]	1.5
Ready status display		LED green	
Switching status display		LED yellow	
Protection class to EN 60 529		IP65 (assembled)	
Ambient temperature		[°C]	–40 ... +90
Weight		[g]	34
Materials			
Housing		Fibreglass reinforced polyamide	
Contacts		Nickel plated brass	

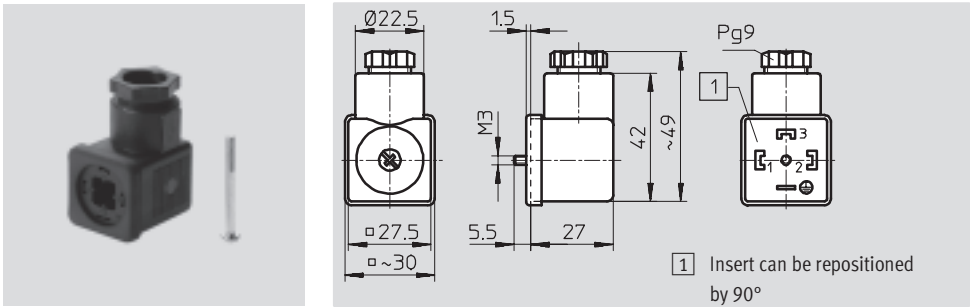
Ordering data			
For pressure switches	Operating voltage range		Part No. Type
	[V DC]	[V AC]	
PEV-1/4-B-OD..., PEV-1/4-SC-OD	15 ... 30	–	164 274 PEV-1/4-WD-LED-24
	≤ 180	≤ 230	164 275 PEV-1/4-WD-LED-230

Plug sockets MSSD

Technical data



Plug socket MSSD-C-4P



General technical data				
Electrical data				
Electrical connection			Angled socket, 4-pin	
Operating voltage range	AC	[V]	250 ±10%	
	DC	[V]	250 ±10%	
Current-carrying capacity		[A]	10	
Cable connection			Screw terminal	
Perm. cable diameter		[mm]	6 ... 8	
Max. wire cross section		[mm²]	1	
Protection class to EN 60 529			IP65 (assembled)	
Ambient temperature		[°C]	−25 ... +80	
Materials				
Housing			Fibreglass reinforced polyamide	
Contacts			Nickel plated brass	
Seal			Nitrile rubber	

Ordering data				
For pressure switches	Operating voltage range		Part No.	Type
	[V DC]	[V AC]		
PEV-1/4-...-OD	250 ±10%	250 ±10%	171 157	MSSD-C-4P

Push-in T-connectors NEDU

Type codes

FESTO

		NEDU	—	M12	D	5	—	M12	T	4
Function										
NEDU	Push-in T-connector									
Connection, left-hand										
M8	M8x1									
M12	M12x1, A-coded									
Socket design										
D	Multiple socket									
Number of pins/wires										
3	3-pin									
5	5-pin									
Connection, right-hand										
M8	M8x1									
M12	M12x1, A-coded									
Plug design										
T	T-piece									
Number of pins/wires										
4	4-pin									

Push-in T-connectors NEDU

Technical data



NEDU-...



General technical data				
Electrical connection, left ¹⁾		Sockets M8x1, 3-pin	Sockets M8x1, 3-pin	Sockets, M12x1, 5-pin
Electrical connection, right ¹⁾		Plugs, M8x1, 4-pin	Plugs, M12x1, 4-pin	Plugs, M12x1, A-coded, 5-pin
Operating voltage	AC [V]	32	60	250
	DC [V]	32	60	250
Nominal operating voltage	AC [V]	32	60	250
	DC [V]	32	60	60
Current-carrying capacity [A]		2	4	4
Protection class		IP65/IP67		
Max. tightening torque [Nm]		0.3	0.3 for M8; 0.5 for M12	0.5
Connection frequency		100	500	500
Type of mounting		Threaded		
Product weight [g]		9.5	16.9	25.5

1) to EN 60947-5-2

Operating and environmental conditions		
Ambient temperature [°C]	–25 ... +85	
Storage temperature [°C]	–25 ... +85	
Corrosion resistance class CRC ¹⁾	2	

1) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents

Materials			
Electrical connection, right	Plugs, M8x1, 4-pin	Plugs, M12x1, 4-pin	Plugs, M12x1, A-coded, 5-pin
Body	Polyamide	Reinforced polyurethane	Reinforced polyurethane
Union nut	Chrome or nickel plated brass		
Plug	Gold-plated brass		

Push-in T-connectors NEDU

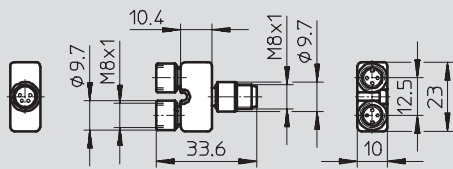
Technical data

FESTO

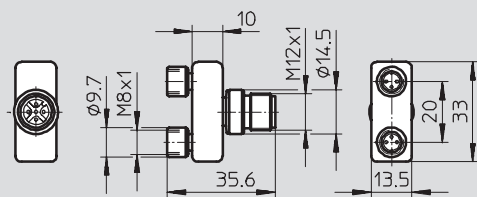
Dimensions

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

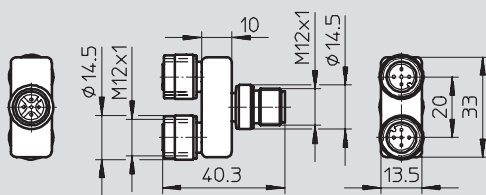
Sockets, M8x1, 3-pin / plugs, M8x1, 4-pin



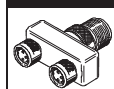
Sockets, M8x1, 3-pin / plugs, M12x1, 5-pin



Sockets, M12x1, 3-pin / plugs, M12x1, A-coded, 5-pin



Ordering data



Electrical connection, left

Electrical connection, right

Part No.

Type

Sockets, M8x1, 3-pin

Plugs, M8x1, 4-pin

544 391

NEDU-M8D3-M8T4

Sockets, M12x1, 3-pin

Plugs, M12x1, 5-pin

541 597

NEDU-M8D3-M12T4

Sockets, M12x1, 3-pin

Plugs, M12x1, A-coded, 5-pin

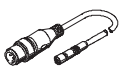
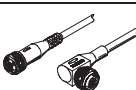
541 596

NEDU-M12D5-M12T4

Connecting cables NEBU

Product range overview

FESTO

Function	Version	Type	Electrical connection		Cable length [m]	Switching status display via LED	→ Page
			Left-hand end	Right-hand end			
Connecting cables	For sensors and proximity sensors						
		NEBU-M5	Socket M5x0.5	Open end	5	–	4 / 8.3-12
				Plug M8x1	1	–	
				Plug M12x1	1	–	
		NEBU-M8	Socket M8x1	Open end	0.1 ... 25	■	4 / 8.3-14
				Plug M8x1		■	
				Plug M12x1		■	
		NEBU-M12	Socket M12x1	Open end	0.1 ... 25	■	4 / 8.3-14
				Plug M8x1		■	
				Plug M12x1		■	

Connecting cables NEBU

Type codes

FESTO

NEBU		—	M12	W	5	P	—	K	—	2.5	—		—	LE		3
------	--	---	-----	---	---	---	---	---	---	-----	---	--	---	----	--	---

Function	
NEBU	Connecting cable

Connection technology, left-hand end	
M5	Socket with connecting thread
M8	Socket with connecting thread
M12	Socket with connecting thread, A-coded

Socket design	
G	Straight
W	Angled

Number of pins/wires (left-hand end)	
3	3-pin (suitable for M8 plug)
4	4-pin (suitable for M8 plug)
5	5-pin (suitable for 3-, 4- and 5-pin M12 plug)

Display	
—	Without LED, DC (standard)
P	LED, PNP
N	LED, NPN

Cable feature	
K	Standard
E	Suitable for chain link trunking
R	Suitable for robots

Cable length	
0.1 ... 25	0.1 ... 25 m

Alternative wire cross section	
—	0.25 mm ² (standard)
Q3	0.14 mm ²

Cable designation	
—	With inscription label holder (standard)
N	Without inscription label holder

Connection technology, right-hand end	
LE	Open end
M8	Socket with connecting thread
M12	Socket with connecting thread, A-coded

Plug design	
G	Straight
W	Angled

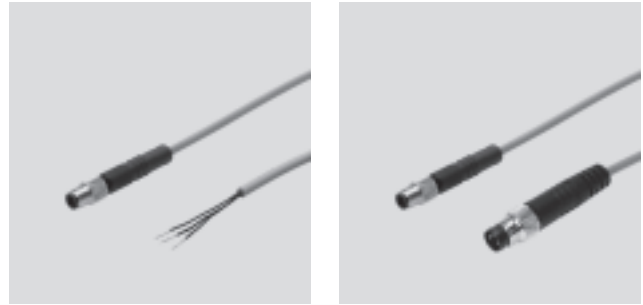
Number of pins/wires (right-hand end)	
3	3-pin (suitable for M8/M12 socket)
4	4-pin (suitable for M8/M12 socket)
5	5-pin (suitable for M12 socket)

Connecting cables NEBU, M5

Technical data

FESTO

NEBU-M5



General technical data				
Electrical connection, right-hand end		Cable, open end, 3-wire	Straight plug, M8x1, 3-pin	Straight plug, M12x1, 4-pin
Cable length	[m]	5	1	1
Cable diameter	[mm]	2.9	2.9	3.4
Cable composition	[mm ²]	3x 0.14	3x 0.14	4x 0.14
Conductor nominal cross section	[mm ²]	0.14		
Cable sheath colour		Grey		
Max. tightening torque, plug socket	[Nm]	0.3		
Max. tightening torque, plug	[Nm]	–	0.3	0.5
Cable feature		Standard		
Test conditions for standard cables		Chain link trunking: 5 million cycles, bending radius 75 mm		
		Resistance to bending: To Festo standard; test conditions on request		

Electrical data				
Electrical connection, left-hand end		Straight socket, M5x0.5, 3-pin		
Electrical connection, right-hand end		Cable, open end, 3-wire	Straight plug, M8x1, 3-pin	Straight plug, M12x1, 4-pin
Operating voltage range	AC [V]	125	75	125
	DC [V]	125	60	125
Protection class		IP65/IP67		

Materials	
Housing	Polyurethane
Union nut	Nickel plated brass
Cable sheath	Polyurethane

Operating and environmental conditions		
	Fixed cable installation	Flexible cable installation
Ambient temperature	–25 ... +70	–5 ... +70
Corrosion resistance class CRC ¹⁾	2	

- 1) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents

Connecting cables NEBU, M5

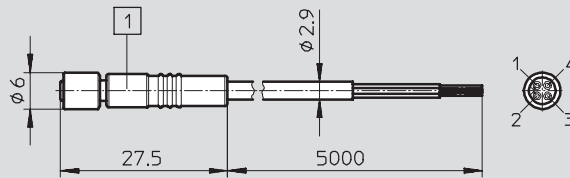
Technical data

FESTO

Dimensions

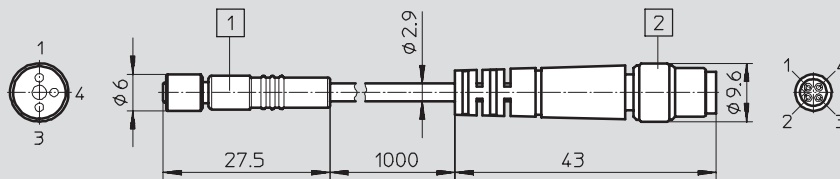
Download CAD data → www.festo.com/en/engineering

Open end



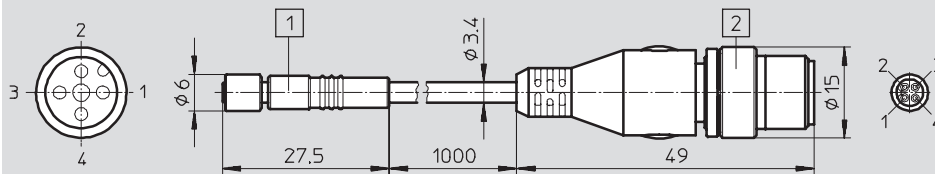
- 1 = Brown
- 2 = Unused
- 3 = Blue
- 4 = Black
- 1 Socket suitable for plug M5x0.5

Plug M8x1



- 1 = Brown
- 2 = Unused
- 3 = Blue
- 4 = Black
- 1 Socket suitable for plug M5x0.5
- 2 Plug suitable for socket M8x1

Plug M12x1



- 1 = Brown
- 2 = Unused
- 3 = Blue
- 4 = Black
- 1 Socket suitable for plug M5x0.5
- 2 Plug suitable for socket M12x1

Ordering data

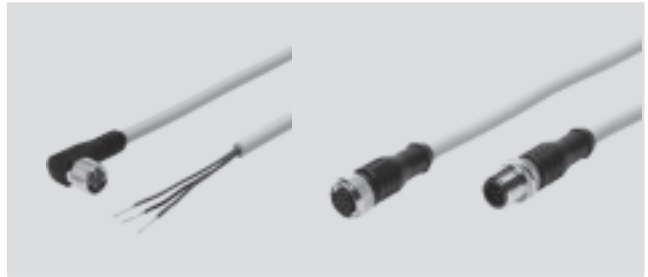
Electrical connection, left-hand end	Electrical connection, right-hand end	Part No.	Type
Straight socket, M5x0.5, 3-pin	Cable, open end, 3-wire	539 508	NEBU-M5G4-K-5-Q3-LE3
	Straight plug, M8x1, 3-pin	539 510	NEBU-M5G4-K-1-Q3-M8G3
	Straight plug, M12x1, 4-pin	539 512	NEBU-M5G4-K-1-Q3-M12G4

Connecting cables NEBU, M8/M12

Technical data

FESTO

NEBU-M8
NEBU-M12



General technical data		
Cable length	[m]	0.1 ... 25
Cable diameter	[mm]	4.5
Cable composition	[mm ²]	3x 0.25, 4x 0.25 or 5x 0.25
Ready status display ¹⁾		Green LED
Switching status display ¹⁾		Yellow LED
Cable sheath colour		Grey
Cable feature ¹⁾		Standard
		Suitable for chain link trunking
		Suitable for robots
Test conditions for standard cables		Chain link trunking: 5 million cycles, bending radius 75 mm
		Resistance to bending: To Festo standard; test conditions on request
Test conditions for suitability for chain link trunking		Chain link trunking: 5 million cycles, bending radius 28 mm
		Resistance to bending: To Festo standard; test conditions on request
Test conditions for suitability for robots		Chain link trunking: 5 million cycles, bending radius 28 mm
		Torsional strength: 300,000 cycles, $\pm 270^\circ/0.1$ m
		Resistance to bending: To Festo standard; test conditions on request

1) If the relevant option is selected → Ordering table 4 / 8.3-17 and modular products4 / 8.3-18

Electrical data – Socket M8x1			
Electrical connection, left-hand end ¹⁾		Socket M8x1, 3-pin, straight or angled	
Electrical connection, right-hand end ¹⁾		Socket M8x1, 4-pin, straight or angled	
		Plug M8x1 or M12x1 3-pin, straight or angled	Plug M8x1 or M12x1 4-pin, straight or angled
		Open end, 3-wire	Open end, 4-wire
Operating voltage range	AC [V]	0 ... 60	0 ... 30
	DC [V]	0 ... 60	0 ... 30
Current-carrying capacity	[A]	3	
Protection class		IP65/IP67	

1) Possible combinations → Ordering table 4 / 8.3-17 and modular products4 / 8.3-18

Electrical data – Socket M12x1				
Electrical connection, left-hand end ¹⁾		Socket M12x1, 5-pin, straight or angled		
Electrical connection, right-hand end ¹⁾		Plug M8x1 or M12x1 3-pin, straight or angled	Plug M8x1 or M12x1 4-pin, straight or angled	Plug M8x1 or M12x1 5-pin, straight or angled
		Open end, 3-wire	Open end, 4-wire	Open end, 5-wire
Operating voltage range	AC [V]	0 ... 300	0 ... 300	0 ... 60
	DC [V]	0 ... 300	0 ... 300	0 ... 60
Current-carrying capacity	[A]	4		
Protection class		IP65/IP67		

1) Possible combinations → Ordering table 4 / 8.3-17 and modular products4 / 8.3-18

Connecting cables NEBU, M8/M12

Technical data

FESTO

Materials	
Housing	Polyurethane
Union nut	Nickel plated brass
Cable sheath	Polyurethane
Note on materials	Free of copper and PTFE

Operating and environmental conditions		
	Fixed cable installation	Flexible cable installation
Ambient temperature [°C]	-25 ... +80	-5 ... +80
Corrosion resistance class CRC ¹⁾	2	

1) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents

Dimensions – Electrical connection, left-hand end

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

Socket M8x1, straight

Socket M8x1, angled

1 Inscription label holder

L Cable length

Socket M12x1, straight

Socket M12x1, angled

1 Inscription label holder

L Cable length

Pin allocations – Electrical connection, left-hand end

Socket M8x1

Socket M12x1

Wire insulation colour code

1 = Brown

2 = White

3 = Blue

4 = Black

5 = Grey

Connecting cables NEBU, M8/M12

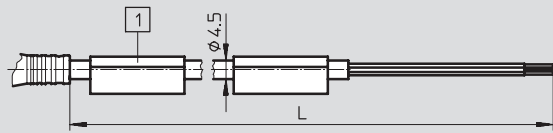
Technical data

FESTO

Dimensions – Electrical connection, right-hand end

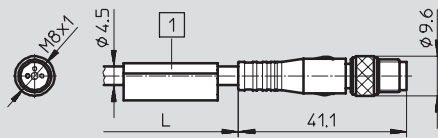
Download CAD data → www.festo.com/en/engineering

Open end

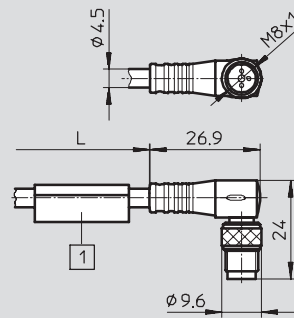


1 Inscription label holder
L Cable length

Plug M8x1, straight

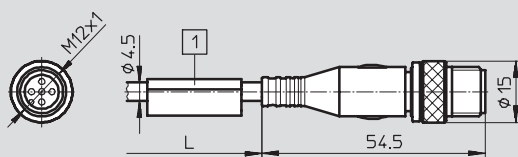


Plug M8x1, angled

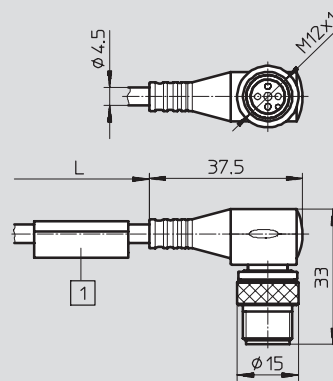


1 Inscription label holder
L Cable length

Plug M12x1, straight



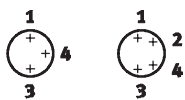
Plug M12x1, angled



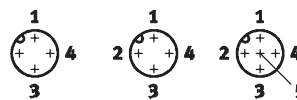
1 Inscription label holder
L Cable length

Pin allocations – Electrical connection, right-hand end

Plug M8x1



Plug M12x1



Wire insulation colour code

1 = Brown
2 = White
3 = Blue
4 = Black
5 = Grey

Connecting cables NEBU, M8/M12

Technical data

FESTO

Ordering data – Basic version					
Electrical connection, left-hand end	Electrical connection, right-hand end	Cable length [m]	Part No.	Type	
Straight socket, M8x1, 3-pin	Cable, open end, 3-wire	2.5	541 333	NEBU-M8G3-K-2.5-LE3	
		5	541 334	NEBU-M8G3-K-5-LE3	
		10	541 332	NEBU-M8G3-K-10-LE3	
	Straight plug, M8x1, 3-pin	0.5	541 346	NEBU-M8G3-K-0.5-M8G3	
		1	541 347	NEBU-M8G3-K-1-M8G3	
		2.5	541 348	NEBU-M8G3-K-2.5-M8G3	
		5	541 349	NEBU-M8G3-K-5-M8G3	
Angled socket, M8x1, 3-pin	Cable, open end, 3-wire	2.5	541 338	NEBU-M8W3-K-2.5-LE3	
		5	541 341	NEBU-M8W3-K-5-LE3	
		10	541 335	NEBU-M8W3-K-10-LE3	
Straight socket, M8x1, 4-pin	Cable, open end, 4-wire	2.5	541 342	NEBU-M8G4-K-2.5-LE4	
		5	541 343	NEBU-M8G4-K-5-LE4	
Angled socket, M8x1, 4-pin	Cable, open end, 4-wire	2.5	541 344	NEBU-M8W4-K-2.5-LE4	
		5	541 345	NEBU-M8W4-K-5-LE4	
Straight socket, M12x1, 5-pin	Cable, open end, 3-wire	2.5	541 363	NEBU-M12G5-K-2.5-LE3	
		5	541 364	NEBU-M12G5-K-5-LE3	
	Cable, open end, 4-wire	5	541 328	NEBU-M12G5-K-5-LE4	
		2.5	541 330	NEBU-M12G5-K-2.5-LE5	
Angled socket, M12x1, 5-pin	Cable, open end, 3-wire	5	541 331	NEBU-M12G5-K-5-LE5	
		2.5	541 367	NEBU-M12W5-K-2.5-LE3	
	Cable, open end, 4-wire	5	541 370	NEBU-M12W5-K-5-LE3	
		5	541 329	NEBU-M12W5-K-5-LE4	

Ordering data – With switching status display					
Electrical connection, left-hand end	Electrical connection, right-hand end	Switch output	Cable length [m]	Part No.	Type
Angled socket, M8x1, 3-pin	Cable, open end, 3-wire	PNP	2.5	541 337	NEBU-M8W5P-K-2.5-LE3
			5	541 340	NEBU-M8W5P-K-5-LE3
		NPN	2.5	541 336	NEBU-M8W5N-K-2.5-LE3
			5	541 339	NEBU-M8W5N-K-5-LE3
Angled socket, M12x1, 5-pin	Cable, open end, 3-wire	PNP	2.5	541 366	NEBU-M12W5P-K-2.5-LE3
			5	541 369	NEBU-M12W5P-K-5-LE3
		NPN	2.5	541 365	NEBU-M12W5N-K-2.5-LE3
			5	541 368	NEBU-M12W5N-K-5-LE3

 **Note**
Additional variants can be configured and ordered via the NEBU modular product system → 4 / 8.3-18.

Ordering data – Inscription labels						
	Material	Use	Dimensions	Part No.	Type	PU ¹⁾
	Polycarbonate	For inscription label holder	23x4 mm	541 598	ASLR-L-423	51

1) Number per frame

Ordering data – Safety clip					
	Material	Use	Size	Part No.	Type
	Polyamide	To secure push-in connectors against easy disconnection (without tool)	M8	548 067	NEAU-M8-GD
			M12	548 068	NEAU-M12-GD

Connecting cables NEBU, M8/M12

Ordering data – Modular products

FESTO

M Mandatory data					O Options →
Module No.	Function	Connection technology, left-hand end	Socket design	Number of pins/wires (left-hand end)	Display
539 052	NEBU	M8 M12	G W	3 4 5	– P N
Ordering example					
539 052	NEBU	– M12	W	5	P

Ordering table				
		Condi- tions	Code	Enter code
M	Module No.	539 052		
	Function	Connecting cable	NEBU	NEBU
			–	–
	Connection technology, left-hand end	Socket with connecting thread	M8	
		Socket with connecting thread, A-coded	M12	
	Socket design	Straight	G	
		Angled	W	
	Number of pins/wires (left-hand end)	3-pin (suitable for M8 plug)	3	
		4-pin (suitable for M8 plug)	4	
		5-pin (suitable for 3-, 4- and 5-pin M12 plug)	5	
O	Display	Without LED, DC (standard)		
		LED, PNP	1 P	
		LED, NPN	1 N	

- 1 P, N Only in combination with M8 connection technology at left-hand end in conjunction with socket design W and number of pins/wires (left-hand end) 3
or
only in combination with M12 connection technology at left-hand end in conjunction with socket design W and number of pins/wires (left-hand end) 5 and number of pins/wires (right-hand end) 3

Transfer order code

539 052 NEBU –

Connecting cables NEBU, M8/M12

Ordering data – Modular products

FESTO

Mandatory data	Options				
Cable attribute	Cable length	Cable designation	Connection technology, right-hand end	Plug design	Number of pins/wires (right-hand end)
K E R	0.1 ... 25	– N	LE M8 M12	G W	3 4 5
– E	– 3.5	– N	– M8	G	3

Ordering table					
Module No.	539 052		Condi- tions	Code	Enter code
↓				–	–
M	Cable attribute	Standard		K	
		Suitable for chain link trunking		E	
		Suitable for robots		R	
				–	–
	Cable length	0.1 ... 25 m (0.1 ... 2.5 m in 0.1 m increments, 2.5 ... 25 m in 0.5 m increments)		...	
O	Cable designation			–	–
		With inscription label holder (standard)			
		Without inscription label holder		N	
M	Connection technology, right-hand end			–	–
		Open end		LE	
		Socket with connecting thread		M8	
		Socket with connecting thread, A-coded		M12	
O	Plug design	Straight	2	G	
		Angled	2	W	
M	Number of pins/wires (right-hand end)	3-pin (suitable for M8/M12 socket)	3	3	
		4-pin (suitable for M8/M12 socket)	4	4	
		5-pin (suitable for M12 socket)	5	5	

- 2 G, W Must be selected with M8, M12 connection technology at right-hand end
Not in combination with LE connection technology at right-hand end
- 3 3 Not in combination with M8 connection technology at left-hand end, number of pins/wires (left-hand end) 4 and LE, M12 connection technology at right-hand end

- 4 4 Not in combination with M8 connection technology at left-hand end, number of pins/wires (left-hand end) 3 and LE, M12 connection technology at right-hand end
- 5 5 Only in combination with LE, M12 connection technology at right-hand end
Not in combination with M8 connection technology at left-hand end and LE, M12 connection technology at right-hand end

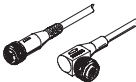
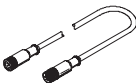
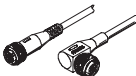
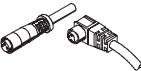
Transfer order code

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Plug sockets with cable SIM

Product range overview

FESTO

Function	Design	Type	Electrical connection	Cable length [m]	Connection direction		Switching status display via LED	→ Page
					In-line	Lateral		
Plug socket with cable	For plugs M8x1							
		SIM-M8	3-pin	2.5, 5, 10	■	■	–	4 / 8.3-22
			3-pin	2.5, 5	■	■	■	4 / 8.3-23
			4-pin	2.5, 5	■	■	–	4 / 8.3-24
		KSMH	4-pin	2	■	–	–	4 / 8.3-25
	For plugs M12x1							
		SIM-M12	3-pin	2.5, 5	■	■	–	4 / 8.3-26
			3-pin	2.5, 5	–	■	■	4 / 8.3-27
			4-pin	5	■	■	–	4 / 8.3-28
			5-pin	2.5, 5	■	–	–	4 / 8.3-29
			8-pin	2; 5	■	–	–	4 / 8.3-30
		KM12	8-pin	2	■	–	–	4 / 8.3-31
	Welding field immune							
		SIM-M12	3-pin	3	■	■	–	4 / 8.3-32
	Snap-on, for plugs M8x1							
		SIM-K	3-pin	2.5, 5, 10	■	■	–	4 / 8.3-33
			4-pin	2.5, 5	■	■	–	4 / 8.3-34
	Clean Design							
		SIM-K-CDN	3-pin	2.5, 5	■	■	–	4 / 8.3-35

Plug sockets with cable SIM

Type codes

FESTO

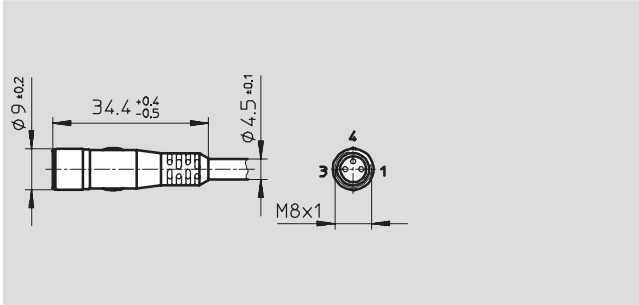
SIM		M8		4		WD		2.5		PU	
Type											
SIM		Plug socket with cable for sensors									
Electrical connection											
M8		Union nut M8x1									
M12		Union nut M12x1									
K		Snap-on plug									
Welding field immunity											
		Basic type, no welding field immunity									
RS		Welding field immune									
Number of wires											
		3-wire									
3		3-wire									
4		4-wire									
5		5-wire									
8		8-wire									
Connection direction											
GD		In-line									
WD		Lateral									
Cable length											
2		2 m									
2.5		2.5 m									
3		3 m									
5		5 m									
10		10 m									
Switch output											
		PNP or NPN									
PSL		PNP									
NSL		NPN									
Cable sheath material											
PU		Polyurethane									
		Polyvinyl chloride									
Ease of cleaning											
		Basic type									
CDN		Clean Design, suitable for foodstuffs									

Plug sockets with cable SIM

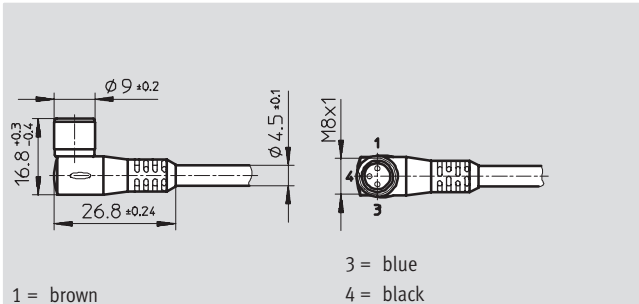
Technical data – M8, 3-pin

FESTO

SIM-M8-3GD-...-PU



SIM-M8-3WD-...-PU



General technical data					
			SIM-M8-3...-2,5-PU	SIM-M8-3...-5-PU	SIM-M8-3...-10-PU
Electrical data					
Electrical connection			Straight or angled socket, M8x1, 3-pin		
Current-carrying capacity		[A]	2.8		
Operating voltage range	AC	[V]	≤45		
	DC	[V]	≤70		
Protection class			IP65/IP67		
Design					
Cable length		[m]	2.5	5	10
Cable composition		[mm ²]	3x 0.25		
Wire ends			Tin-coated		
Ambient temperature					
Fixed cable installation		[°C]	−40 ... +70		
Flexible cable installation		[°C]	−5 ... +70		
Materials					
Cable sheath			Polyurethane		

Ordering data					
		Part No.	Type	Part No.	Type
Connection direction		In-line		Lateral	
Cable length [m]	2.5	159 420	SIM-M8-3GD-2,5-PU	159 422	SIM-M8-3WD-2,5-PU
	5	159 421	SIM-M8-3GD-5-PU	159 423	SIM-M8-3WD-5-PU
	10	192 964	SIM-M8-3GD-10-PU	192 965	SIM-M8-3WD-10-PU

Plug sockets with cable SIM

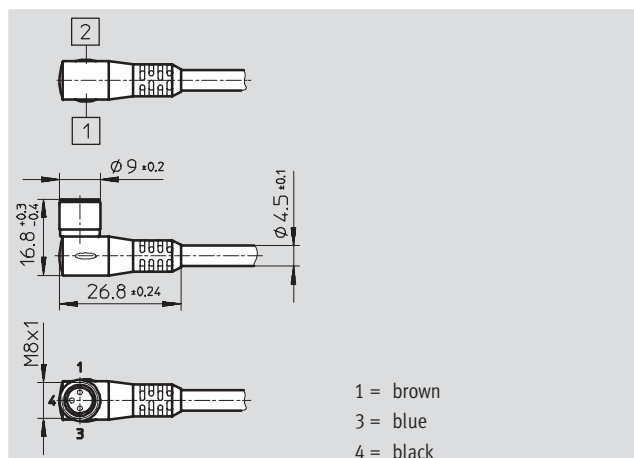
Technical data – M8, 3-pin with switching status display

FESTO

SIM-M8-3WD-...-PSL-PU

SIM-M8-3WD-...-NSL-PU

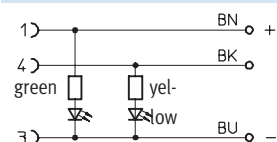
- Ready status display and switching status display with LED



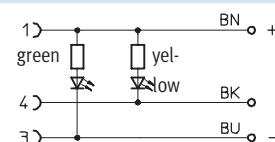
General technical data			
		SIM-M8-3WD-2,5-...-PU	SIM-M8-3WD-5-...-PU
Electrical data			
Switch output		PNP or NPN	
Electrical connection		Angled socket, M8x1, 3-pin	
Current-carrying capacity		[A]	2.8
Operating voltage range	AC	[V]	≤45
	DC	[V]	≤70
Protection class		IP65/IP67	
Design			
Cable length		[m]	2.5
Cable composition		[mm ²]	3x 0.25
Wire ends		Tin-coated	
Ready status display		LED green	
Switching status display		LED yellow	
Ambient temperature			
Fixed cable installation		[°C]	−40 ... +70
Flexible cable installation		[°C]	−5 ... +70
Materials			
Cable sheath		Polyurethane	

Circuit diagram and pin allocation

PNP switch output



NPN switch output



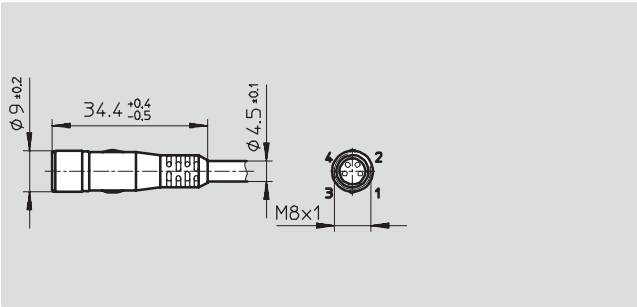
Ordering data					
		Part No.	Type	Part No.	Type
Switch output		PNP		NPN	
Cable length [m]	2.5	159 424	SIM-M8-3WD-2,5-PSL-PU	159 426	SIM-M8-3WD-2,5-NSL-PU
	5	159 425	SIM-M8-3WD-5-PSL-PU	159 427	SIM-M8-3WD-5-NSL-PU

Plug sockets with cable SIM

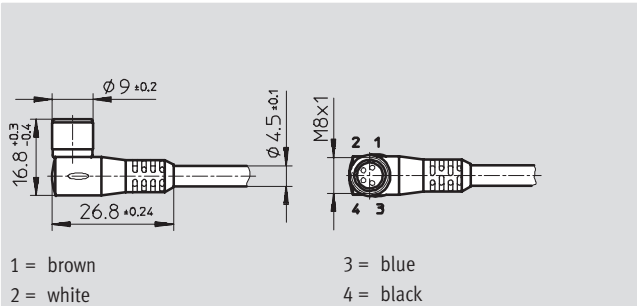
Technical data – M8, 4-pin



SIM-M8-4GD-...-PU



SIM-M8-4WD-...-PU



General technical data				
			SIM-M8-4...-2,5-PU	SIM-M8-4...-5-PU
Electrical data				
Electrical connection			Straight or angled socket, M8x1, 4-pin	
Current-carrying capacity		[A]	2.8	
Operating voltage range	AC	[V]	≤45	
	DC	[V]	≤70	
Protection class			IP65/IP67	
Design				
Cable length		[m]	2.5	5
Cable composition		[mm²]	4x 0.25	
Wire ends			Tin-coated	
Ambient temperature				
Fixed cable installation		[°C]	−40 ... +70	
Flexible cable installation		[°C]	−5 ... +70	
Materials				
Cable sheath			Polyurethane	

Ordering data				
		Part No.	Type	Part No. Type
Connection direction		In-line		Lateral
Cable length [m]	2.5	158 960	SIM-M8-4GD-2,5-PU	158 962 SIM-M8-4WD-2,5-PU
	5	158 961	SIM-M8-4GD-5-PU	158 963 SIM-M8-4WD-5-PU

Plug sockets with cable KSMH

Technical data – Connecting cable M8, 4-pin

FESTO

KSMH-1-M8-2-M8



General technical data			
Electrical data			
Electrical connection		Straight plug/straight socket, M8x1, 4-pin	
Current-carrying capacity	[A]	2	
Operating voltage range	AC	[V]	≤60
	DC	[V]	≤75
Protection class		IP68	
Design			
Cable length	[m]	2	
Cable composition	[mm ²]	4x 0.14	
Ambient temperature			
Fixed cable installation	[°C]	−5 ... +70	
Materials			
Cable sheath		Polyurethane	
Insulating sheath		Polyvinyl chloride	

Dimensions

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

Technical drawing of a Festo KSMH-1-M8-2-M8 plug socket with cable. The drawing includes a side view and two cross-sectional views.

Side View Dimensions:

- Plug length: 36 mm
- Cable length: 2000 ⁺⁶⁰ mm
- Socket length: 42.5 mm
- Cable outer diameter: $\varnothing 9.5$ mm
- Pin diameter: $\varnothing 3.4^{+0.1}$ mm
- Thread: M8x1

Cross-sectional Views:

- Left cross-section shows the plug with pins labeled 1, 2, 3, and 4.
- Right cross-section shows the socket with pins labeled 1, 2, 3, and 4.

Color Code:

- 1 = brown
- 2 = white
- 3 = blue
- 4 = black

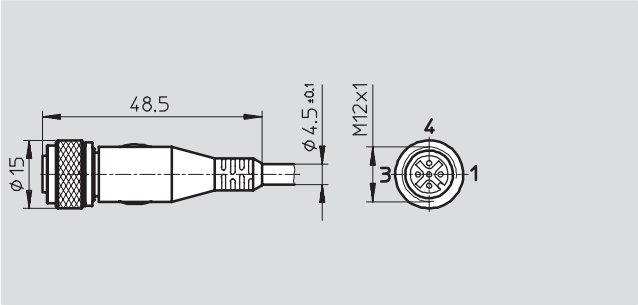
Ordering data			
		Part No.	Type
Cable length [m]	2	175 714	KSMH-1-M8-2-M8

Plug sockets with cable SIM

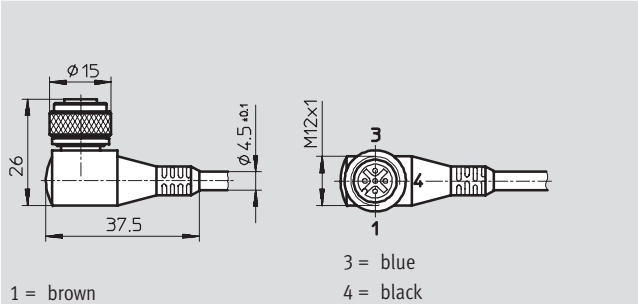
Technical data – M12, 3-pin



SIM-M12-3GD-...-PU



SIM-M12-3WD-...-PU



General technical data				
			SIM-M12-3...-2,5-PU	
			SIM-M12-3...-5-PU	
Electrical data				
Electrical connection			Straight or angled socket, M12x1, 3-pin	
Current-carrying capacity		[A]	4	
Operating voltage range	AC	[V]	≤250	
	DC	[V]	≤300	
Protection class			IP65/IP67	
Design				
Cable length		[m]	2.5	5
Cable composition		[mm²]	3x 0.25	
Wire ends			Tin-coated	
Ambient temperature				
Fixed cable installation		[°C]	−40 ... +70	
Flexible cable installation		[°C]	−5 ... +70	
Materials				
Cable sheath			Polyurethane	

Ordering data				
		Part No.	Type	Part No. Type
Connection direction		In-line		Lateral
Cable length [m]	2.5	159 428	SIM-M12-3GD-2,5-PU	159 430 SIM-M12-3WD-2,5-PU
	5	159 429	SIM-M12-3GD-5-PU	159 431 SIM-M12-3WD-5-PU

Plug sockets with cable SIM

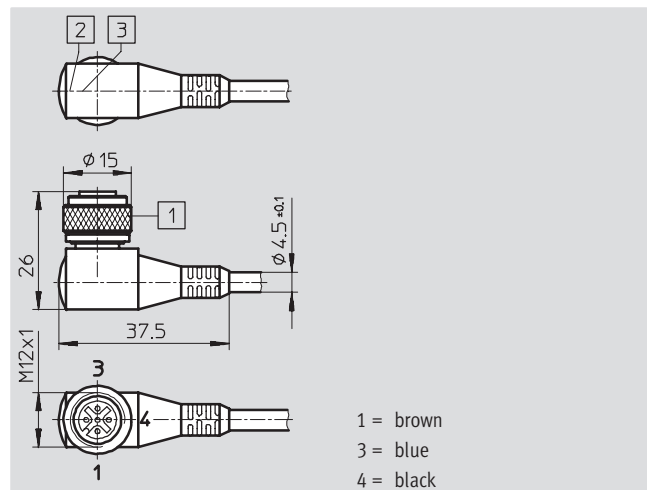
Technical data – M12, 3-pin with switching status display

FESTO

SIM-M12-3WD-...-PSL-PU

SIM-M12-3WD-...-NSL-PU

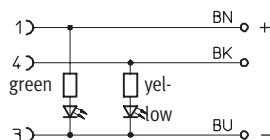
- Ready status display and switching status display with LED



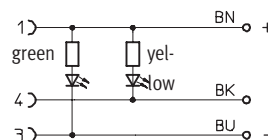
General technical data				
		SIM-M12-3WD-2,5-...-PU		SIM-M12-3WD-5-...-PU
Electrical data				
Switch output		PNP or NPN		
Electrical connection		Angled socket, M12x1, 3-pin		
Current-carrying capacity	[A]	4		
Operating voltage range	DC	[V]	10 ... 30	
Protection class		IP65/IP67		
Design				
Cable length	[m]	2.5	5	
Cable composition	[mm ²]	3x 0.25		
Wire ends		Tin-coated		
Ready status display		LED green		
Switching status display		LED yellow		
Ambient temperature				
Fixed cable installation	[°C]	−40 ... +70		
Flexible cable installation	[°C]	−5 ... +70		
Materials				
Cable sheath		Polyurethane		

Circuit diagram and pin allocation

PNP switch output



NPN switch output



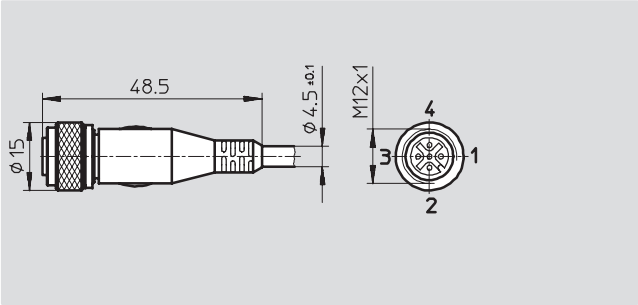
Ordering data				
	Part No.	Type	Part No.	Type
Switch output		PNP		NPN
Cable length [m]	2.5	159 432 SIM-M12-3WD-2,5-PSL-PU	159 434	SIM-M12-3WD-2,5-NSL-PU
	5	159 433 SIM-M12-3WD-5-PSL-PU	159 435	SIM-M12-3WD-5-NSL-PU

Plug sockets with cable SIM

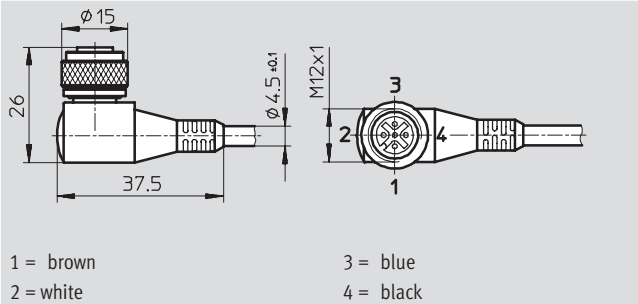
Technical data – M12, 4-pin



SIM-M12-4GD-5-PU



SIM-M12-4WD-5-PU



General technical data			
		SIM-M12-4...-5-PU	
Electrical data			
Electrical connection		Straight or angled socket, M12x1, 4-pin	
Current-carrying capacity	[A]	2.8	
Operating voltage range	AC	[V]	≤45
	DC	[V]	≤70
Protection class		IP65/IP67	
Design			
Cable length	[m]	5	
Cable composition	[mm ²]	4x 0.25	
Wire ends		Tin-coated	
Ambient temperature			
Fixed cable installation	[°C]	−40 ... +70	
Flexible cable installation	[°C]	−5 ... +70	
Materials			
Cable sheath		Polyurethane	

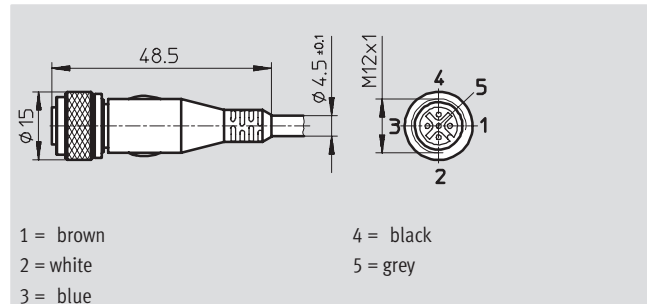
Ordering data				
	Part No.	Type	Part No.	Type
Connection direction	In-line		Lateral	
Cable length [m]	5	164 259 SIM-M12-4GD-5-PU	164 258	SIM-M12-4WD-5-PU

Plug sockets with cable SIM

Technical data – M12, 5-pin

FESTO

SIM-M12-5GD-...-PU



General technical data				
			SIM-M12-5GD-2,5-PU	SIM-M12-5GD-5-PU
Electrical data				
Electrical connection			Straight socket, M12x1, 5-pin	
Current-carrying capacity		[A]	4	
Operating voltage range	AC	[V]	≤45	
	DC	[V]	≤70	
Protection class			IP65/IP67	
Design				
Cable length		[m]	2.5	5
Cable composition		[mm ²]	5x 0.25	
Wire ends			Tin-coated	
Ambient temperature				
Fixed cable installation		[°C]	−40 ... +70	
Flexible cable installation		[°C]	−5 ... +70	
Materials				
Cable sheath			Polyurethane	

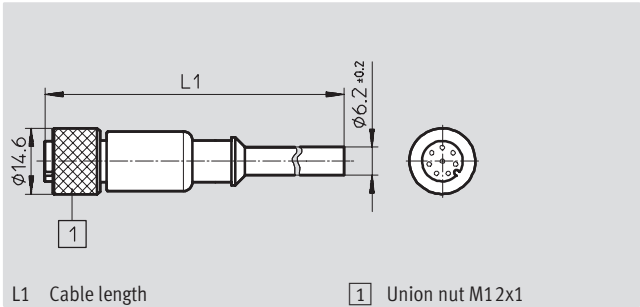
Ordering data			
		Part No.	Type
Cable length [m]	2.5	175 715	SIM-M12-5GD-2,5-PU
	5	175 716	SIM-M12-5GD-5-PU

Plug sockets with cable SIM

Technical data – M12, 8-pin



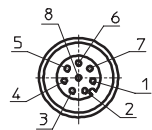
SIM-M12-8GD-...-PU



General technical data			
		SIM-M12-8GD-2-PU	
		SIM-M12-8GD-5-PU	
Electrical data			
Electrical connection		Straight socket, M12x1, 8-pin	
Current-carrying capacity	[A]	4	
Operating voltage range	AC	[V]	≤45
	DC	[V]	≤70
Protection class		IP68	
Design			
Cable length	[m]	2	5
Cable composition	[mm ²]	8x 0.25	
Wire ends		Tin-coated	
Ambient temperature			
Fixed cable installation	[°C]	−25 ... +80	
Materials			
Cable sheath		Polyurethane	

Pin allocation

M12 plug socket



- | | | | |
|---|--------------------------|---|----------------------|
| 1 | 24 V sensor (white, WH) | 5 | Coil 14 (grey, GY) |
| 2 | Sensor 2 (brown, BN) | 6 | Coil 12 (pink, PK) |
| 3 | Sensor 1 (green, GN) | 7 | Diagnosis (blue, BU) |
| 4 | 0 V sensors (yellow, YE) | 8 | 0 V coils (red, RD) |

Ordering data			
		Part No.	Type
Cable length [m]	2	525 616	SIM-M12-8GD-2-PU
	5	525 618	SIM-M12-8GD-5-PU

Plug sockets with cable KM12

Technical data – Connecting cable M12, 8-pin

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KM12-8GD8GS-2-PU



General technical data			
Electrical data			
Electrical connection		Straight plug/straight socket, M12x1, 8-pin	
Current-carrying capacity	[A]	4	
Operating voltage range	AC	[V]	≤45
	DC	[V]	≤70
Protection class		IP68	
Design			
Cable length	[m]	2	
Cable composition	[mm ²]	8x 0.25	
Ambient temperature			
Fixed cable installation	[°C]	−25 ... +80	
Materials			
Cable sheath		Polyurethane	

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

Pin allocation			
M12 plug	M12 plug socket		
		1 2 3 4 24 V sensor (white, WH) Sensor 2 (brown, BN) Sensor 1 (green, GN) 0 V sensors (yellow, YE)	5 6 7 8 Coil 14 (grey, GY) Coil 12 (pink, PK) Diagnosis (blue, BU) 0 V coils (red, RD)

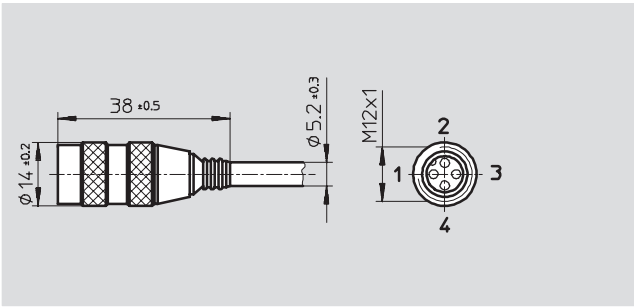
Ordering data			
		Part No.	Type
Cable length [m]	2	525 617	KM12-8GD8GS-2-PU

Plug sockets with cable SIM

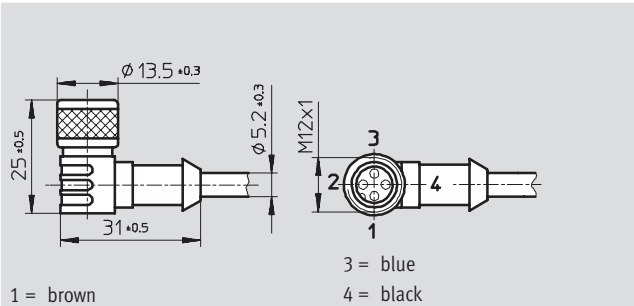
Technical data – M12, 3-pin, welding field immune



SIM-M12-RS-3GD-3



SIM-M12-RS-3WD-3



General technical data			
Electrical data			
Electrical connection			Straight or angled socket, M12x1, 3-pin
Current-carrying capacity	[A]	4	
Operating voltage range	AC	[V]	≤45
	DC	[V]	≤70
Protection class			IP65/IP67
Design			
Cable length	[m]	3	
Cable composition	[mm ²]	3x 0.25	
Cable sheath colour			Orange
Wire ends			Tin-coated
Ambient temperature			
Fixed cable installation	[°C]	−25 ... +80	
Flexible cable installation	[°C]	−0 ... +80	
Materials			
Cable sheath			Polyvinyl chloride, screened

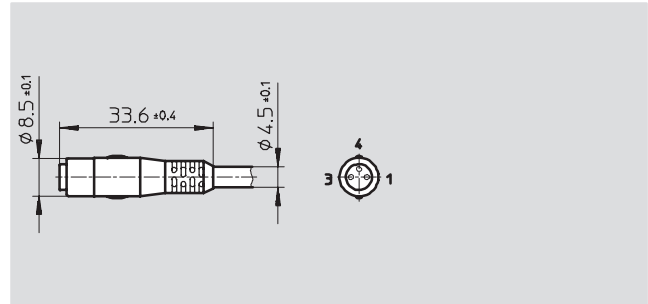
Ordering data					
	Part No.	Type		Part No.	Type
Connection direction		In-line		Latera	
Cable length [m]	2.5	30 450	SIM-M12-RS-3GD-3	30 451	SIM-M12-RS-3WD-3

Plug sockets with cable SIM-K

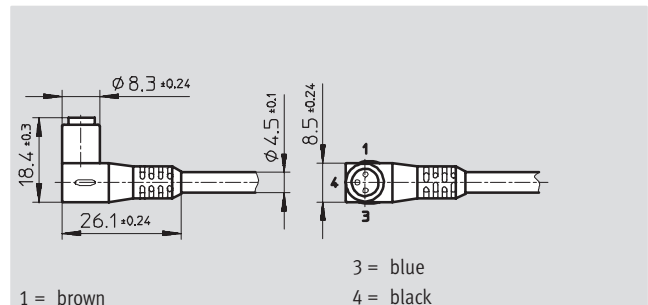
Technical data – Snap-on, 3-pin

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SIM-K-GD-...-PU



SIM-K-WD-...-PU



General technical data					
		SIM-K-...-2,5-PU		SIM-K-...-5-PU	SIM-K-...-10-PU
Electrical data					
Electrical connection		Straight or angled socket, snap-on			
Current-carrying capacity		[A]	2.8		
Operating voltage range	AC	[V]	≤45		
	DC	[V]	≤70		
Protection class		IP65/IP67			
Design					
Cable length		[m]	2.5	5	10
Cable composition		[mm ²]	3x 0.25		
Wire ends		Tin-coated			
Ambient temperature					
Fixed cable installation		[°C]	−40 ... +70		
Flexible cable installation		[°C]	−5 ... +70		
Materials					
Cable sheath		Polyurethane			

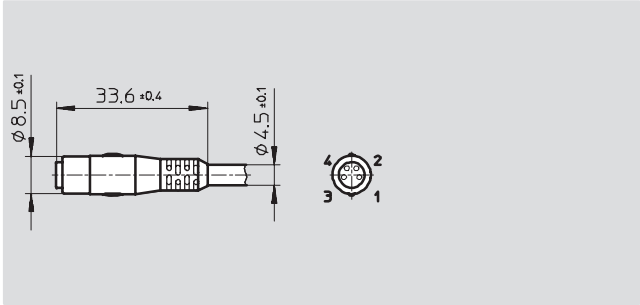
Ordering data					
Connection direction		Part No.	Type	Part No.	Type
Connection direction		In-line		Lateral	
Cable length [m]	2.5	164 257	SIM-K-GD-2,5-PU	164 255	SIM-K-WD-2,5-PU
	5	164 256	SIM-K-GD-5-PU	164 254	SIM-K-WD-5-PU
	10	192 962	SIM-K-GD-10-PU	192 963	SIM-K-WD-10-PU

Plug sockets with cable SIM-K

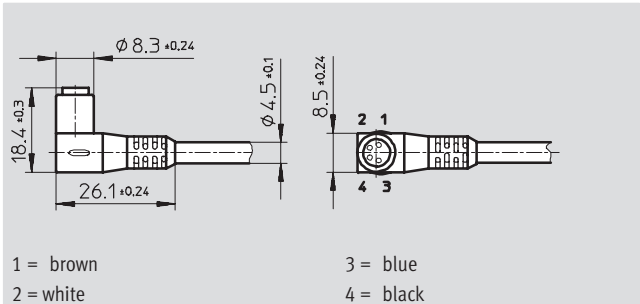
Technical data – Snap-on, 4-pin

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SIM-K-4-GD-...-PU



SIM-K-4-WD-...-PU



General technical data				
			SIM-K-4-...-2,5-PU	
			SIM-K-4-...-5-PU	
Electrical data				
Electrical connection			Straight or angled socket, snap-on	
Current-carrying capacity		[A]	2.8	
Operating voltage range	AC	[V]	≤45	
	DC	[V]	≤70	
Protection class			IP65/IP67	
Design				
Cable length		[m]	2.5	5
Cable composition		[mm ²]	4x 0.25	
Wire ends		Tin-coated		
Ambient temperature				
Fixed cable installation		[°C]	−40 ... +70	
Flexible cable installation		[°C]	−5 ... +70	
Materials				
Cable sheath			Polyurethane	

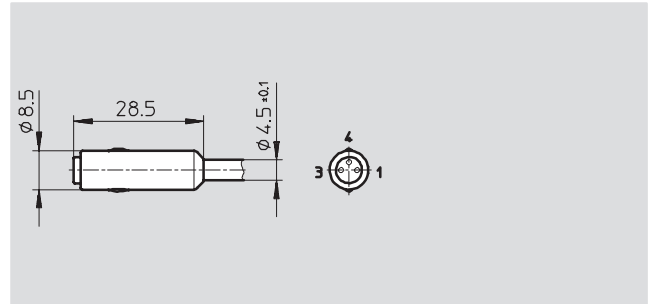
Ordering data					
		Part No.	Type	Part No.	Type
Connection direction		In-line		Lateral	
Cable length	2.5 m	164 250	SIM-K-4-GD-2,5-PU	164 252	SIM-K-4-WD-2,5-PU
	5 m	164 251	SIM-K-4-GD-5-PU	164 253	SIM-K-4-WD-5-PU

Plug sockets with cable SIM-K

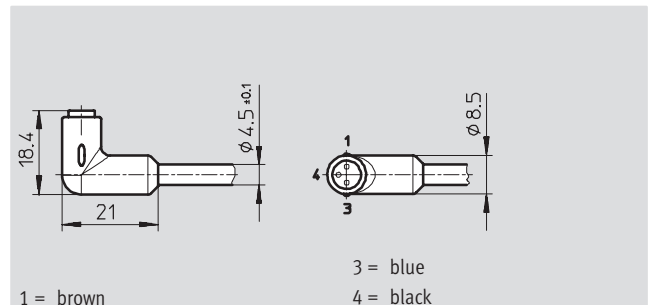
Technical data – Snap-on, 3-pin, Clean Design

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SIM-K-GD-...-CDN



SIM-K-WD-...-CDN



General technical data				
			SIM-K-...-2,5-CDN	SIM-K-...-5-CDN
Electrical data				
Electrical connection			Straight or angled socket, snap-on	
Current-carrying capacity		[A]	2.8	
Operating voltage range	AC	[V]	≤45	
	DC	[V]	≤70	
Protection class			IP65/IP67/IP69	
Design				
Cable length		[m]	2.5	5
Cable composition		[mm ²]	3x 0.25	
Wire ends			Tin-coated	
Ambient temperature				
Fixed cable installation		[°C]	−30 ... +70	
Flexible cable installation		[°C]	−5 ... +70	
Materials ¹⁾				
Cable sheath			Polyurethane	

1) Materials suitable for foodstuffs, resistant to cleaning and disinfecting agents to DIN 11483

Ordering data				
		Part No.	Type	Part No. Type
Connection direction		In-line		Lateral
Cable length [m]	2.5	525 259	SIM-K-GD-2,5-CDN	525 261 SIM-K-WD-2,5-CDN
	5	525 260	SIM-K-GD-5-CDN	525 262 SIM-K-WD-5-CDN