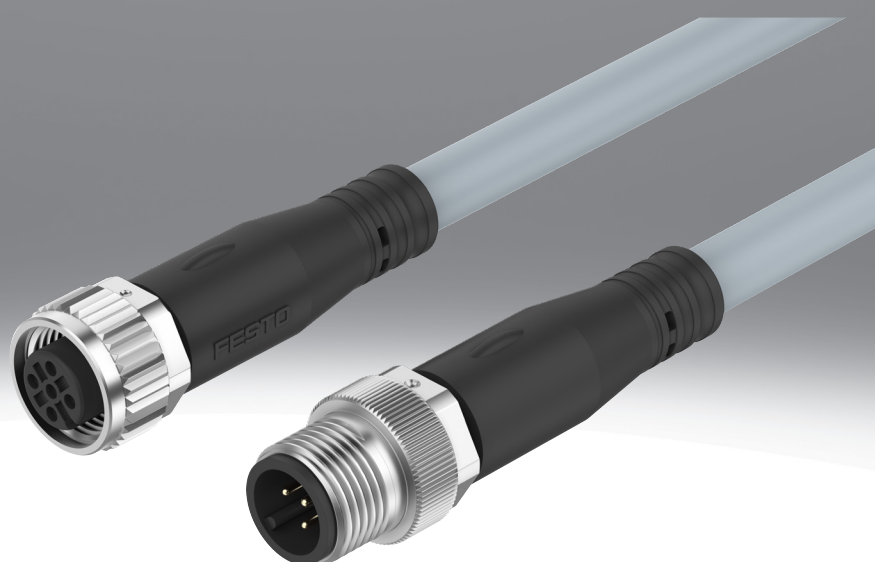


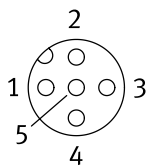
Connecting cable NEBU

FESTO



Datasheet

General technical data – Socket M12, 5-pin, nominal conductor cross-section 1 qmm



Wire colour according to IEC 757

- 1. BN
- 2. WH
- 3. BU
- 4. BK
- 5. GY

Electrical connection 2, connection type	Cable	Plug
Conforms to standard	EN 60947-5-2, EN 61076-2-101, IEC 61010-1	
Frequency of connection	100	
Cable designation	Without inscription label holder	
Vibration resistance	Test conditions on request	
Shock resistance	Test conditions on request	
Nominal altitude of use	<= 2000 m NHN	

Technical data – Electrical connection 1, socket M12, 5-pin, conductor nominal cross-section 1 qmm

Electrical connection 1, connector system	M12x1, A-coded to EN 61076-2-101
Electrical connection 1, function	Field device side
Electrical connection 1, connection type	Socket
Electrical connection 1, cable outlet	Straight
Electrical connection 1, design	Round
Electrical connection 1, number of connections/cores	5
Electrical connection 1, used connections/cores	5
Electrical connection 1, type of mounting	Screw-type lock with 13 mm hexagon and longitudinal knurl, Rotatable
Electrical connection 1, compatible type of mounting	Compatible with rotatable/non-rotatable screw-type lock

Technical data – Electrical connection 2, socket M12, 5-pin, conductor nominal cross-section 1 qmm

Electrical connection 2, connection type	Cable	Plug
Electrical connection 2, function	Control side	
Electrical connection 2, cable outlet	–	Straight
Electrical connection 2, design	–	Round
Electrical connection 2, connector system	Open end	M12x1, A-coded to EN 61076-2-101
Wire ends	Stripped; Cut off bluntly	–
Electrical connection 2, number of connections/cores	5	
Electrical connection 2, used connections/cores	5	
Electrical connection 2, type of mounting	–	Screw-type lock with 13 mm hexagon and longitudinal knurl, Rotatable
Electrical connection 2, compatible type of mounting	–	Compatible with rotatable/non-rotatable screw-type lock

Datasheet

Technical data – Electrical, socket M12, 5-pin, conductor nominal cross-section 1 qmm

Operational voltage range DC	0 ... 60 V
Operational voltage range AC	0 ... 60 V
Immunity to surge	1.5 kV
Current rating at 40° C	4 A
Note on permissible current load at 40°C	Observe derating
Pollution degree	3
Protective conductor connection	Not provided
Shielding	No

Technical data – Cable, M12 socket, 5-pin, conductor nominal cross section 1 qmm

Cable diameter	7 mm
Cable diameter tolerance	± 0.1 mm
Cable characteristic	Suitable for energy chains
Bending radius, fixed cable	21 mm
Bending radius, moving cable	71 mm
Test conditions cable	Bending strength: to Festo standard; Test conditions on request; Flexural strength: >50000 cycles, bending radius 5 mm; Energy chain: > 5 million cycles, bending radius 75 mm; Acceleration: 10 m/s ² ; Speed: 3 m/s; Travelling distance: 1.8 m
Cable structure	5 x 1 mm ²
Nominal cross section conductor	1 mm ²
	79.9

Materials

Material housing	TPE-U(PUR)
Housing colour	Black
Material cable sheath	TPE-U(PUR)
Cable sheath colour	Grey
Material insulating sheath	PP
Material screw-type lock	Brass, nickel-plated
Material seals	NBR
Material electrical contact	Gold-plated copper alloy
Note on materials	RoHS compliant; Free of halogen; Copper-free; Free of phosphoric acid ester
Special characteristics	Oil-resistant
LABS (PWIS) conformity	VDMA24364-B2-L

Operating and environmental conditions – Socket M12, 5-pin, conductor nominal cross-section 1 qmm

Cable length	5	7.5	10
Ambient temperature	-25 ... 80°C		
Ambient temperature with moving cable	-5 ... 80°C		
Storage temperature	-25 ... 80°C		
Corrosion resistance class CRC ¹⁾	2 - Moderate corrosion stress		
CE mark (see declaration of conformity) ²⁾	To EU Low Voltage Directive In accordance with EU RoHS Directive		
UKCA marking (see declaration of conformity) ³⁾	To UK RoHS instructions To UK regulations for electrical equipment		
Degree of protection	IP65; IP68; IP69K		
Note on degree of protection	In mounted state		IP 65/67/69K (electrical connection 1), In mounted state
Relative air humidity	Max. 93% at 40°C		
Overvoltage category	II		
Suitability for the production of Li-ion batteries	Suitable for battery production with reduced Cu/Zn/Ni values (F1a)		

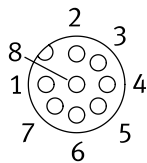
1) More information www.festo.com/x/topic/crc

2) More information www.festo.com/catalogue/... Support/Downloads.

3) More information www.festo.com/catalogue/... Support/Downloads.

Datasheet

General technical data – Socket M12, 8-pin



Wire colour according to IEC 757

- 1. WH
- 2. BN
- 3. GN
- 4. YE
- 5. GY
- 6. PK
- 7. BU
- 8. RD

Conforms to standard	EN 61076-2-101
Cable designation	Without inscription label holder

Technical data – Electrical connection 1, M12 socket, 8-pin

Electrical connection 1, connector system	M12x1, A-coded to EN 61076-2-101
Electrical connection 1, function	Field device side
Electrical connection 1, connection type	Socket
Electrical connection 1, cable outlet	Straight, Angled
Electrical connection 1, design	Round
Electrical connection 1, number of connections/cores	8
Electrical connection 1, used connections/cores	8
Electrical connection 1, type of mounting	Screw-type lock, Rotatable

Technical data – Electrical connection 2, M12 socket, 8-pin

Electrical connection 2, function	Control side
Electrical connection 2, connection type	Cable, Plug
Electrical connection 2, connector system	M12x1, A-coded to EN 61076-2-101, Open end
Wire ends	Tin-plated
Electrical connection 2, number of connections/cores	8
Electrical connection 2, used connections/cores	8

Technical data – Electrical, M12 socket, 8-pin

Operational voltage range DC	0 ... 30 V
Operational voltage range AC	0 ... 30 V
Immunity to surge	0.8 kV
Current rating at 40° C	2 A
Pollution degree	3

Datasheet

Technical data – Cable, M12 socket, 8-pin

Cable diameter	6.2 ... 6.3 mm
Cable diameter tolerance	±0.2 mm
Cable characteristic	Standard
Bending radius, fixed cable	≥32 mm
Bending radius, moving cable	≥64 mm
Cable structure	8 x 0.25 mm ²
Nominal cross section conductor	0.25 mm ²

Materials

Material housing	TPE-U(PUR)
Material cable sheath	TPE-U(PUR)
Cable sheath colour	Grey
Material insulating sheath	PP, TPE-U(PUR)
Material screw-type lock	Chrome-plated brass, Brass, nickel-plated
Material seals	NBR
Material electrical contact	Gold-plated copper alloy, Brass, nickel-plated and gold-plated
Note on materials	RoHS compliant
LABS (PWIS) conformity	VDMA24364-B2-L

Operating and environmental conditions – M12 socket, 8-pin

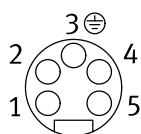
Ambient temperature	-25 ... 80°C
Ambient temperature with moving cable	-5 ... 80°C
Corrosion resistance class CRC ¹⁾	2 - Moderate corrosion stress
CE mark (see declaration of conformity) ²⁾	In accordance with EU RoHS Directive
UKCA marking (see declaration of conformity) ³⁾	To UK RoHS instructions
Degree of protection	IP67
Note on degree of protection	In mounted state

1) More information www.festo.com/x/topic/kbk

2) More information www.festo.com/catalogue/... Support/Downloads.

3) More information www.festo.com/catalogue/... Support/Downloads.

General technical data – Socket G7/8



Wire colour according to IEC 757

1. BK
2. BU
3. GN YA
4. BN
5. WH

Based on standard	NFPA/T3.5.29 R1-2007
Frequency of connection	100
Cable designation	Without inscription label holder

Datasheet

Technical data – Electrical connection 1, socket G7/8

Electrical connection 1, connector system	G7/8 coded to NFPA/T3.5.29 R1-2007
Electrical connection 1, function	Field device side
Electrical connection 1, connection type	Socket
Electrical connection 1, cable outlet	Angled
Electrical connection 1, note on cable outlet	Cable outlet not in line with the industry standard. Matched with the CPX protective cover.
Electrical connection 1, design	Round
Electrical connection 1, number of connections/cores	5
Electrical connection 1, used connections/cores	5
Electrical connection 1, type of mounting	Screw-type lock

Technical data – Electrical connection 2, socket G7/8

Electrical connection 2, function	Control side
Electrical connection 2, connection type	Cable
Electrical connection 2, connector system	Open end
Electrical connection 2, number of connections/cores	5
Electrical connection 2, used connections/cores	5

Technical data – Electrical, socket G7/8

Operational voltage range DC	0 ... 300 V
Operational voltage range AC	0 ... 300 V
Immunity to surge	4 kV
Current rating at 40° C	9 A
Pollution degree	3

Technical data – Cable, G7/8 socket

Cable diameter	8.7 mm
Cable diameter tolerance	±0.2 mm
Cable characteristic	Standard
Bending radius, fixed cable	≥65 mm
Test conditions cable	Test conditions on request
Cable structure	5 x 1.5 mm ²
Nominal cross section conductor	1.5 mm ²

Materials

Material housing	TPE-U(PUR)
Housing colour	Black
Material cable sheath	TPE-U(PUR)
Cable sheath colour	Black
Material screw-type lock	Brass, nickel-plated
Material electrical contact	Gold-plated brass
Note on materials	RoHS compliant
LABS (PWIS) conformity	VDMA24364-B2-L

Datasheet

Operating and environmental conditions – Socket G7/8

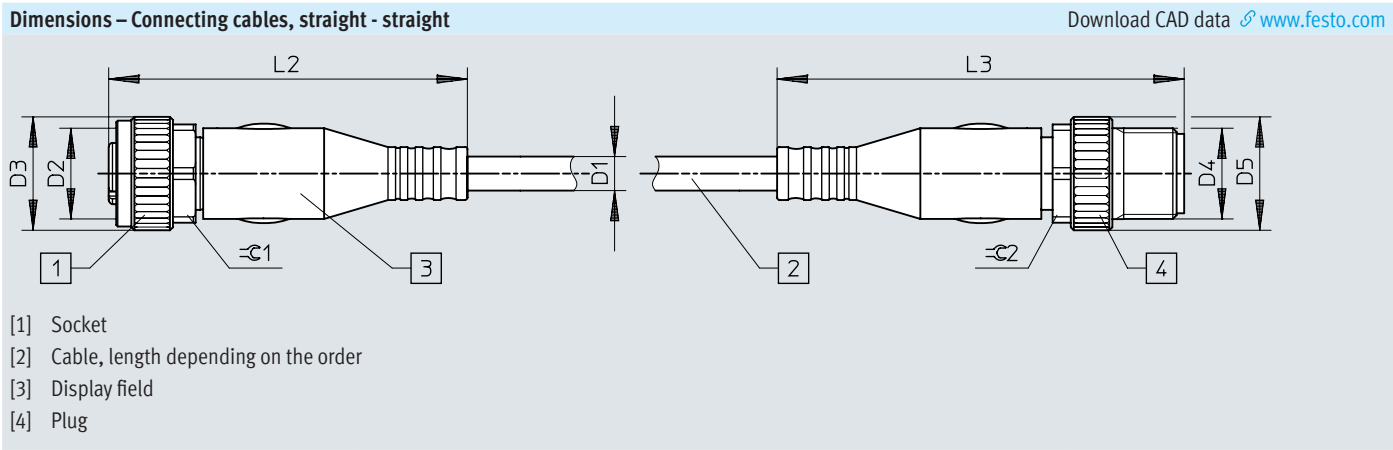
Ambient temperature	-20 ... 80°C
Corrosion resistance class CRC ¹⁾	1 - Low corrosion stress
CE mark (see declaration of conformity) ²⁾	To EU Low Voltage Directive
UKCA marking (see declaration of conformity) ³⁾	To UK regulations for electrical equipment
Degree of protection	IP65; IP67
Note on degree of protection	In mounted state

1) More information www.festo.com/x/topic/kbk

2) More information www.festo.com/catalogue/... Support/Downloads.

3) More information www.festo.com/catalogue/... Support/Downloads.

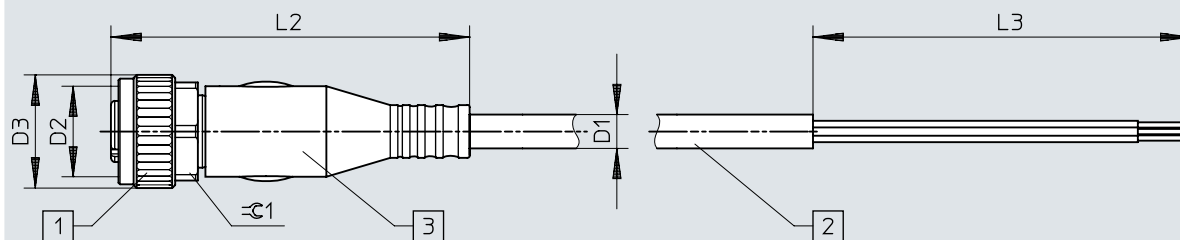
Dimensions



	D1 Ø	D2	D3 Ø	D4	D5 Ø	L2	L3	≙ 1	≙ 2
NEBU-M12G5-...-Q8N-M12G5	7	M12x1	15	M12x1	15	47,5	54,5	13	13
KM12-8GD8GS-2-PU	6,2	M12x1	-	M12x1	14,6	-	-	-	-

Dimensions

Dimensions – Connecting cables, straight - open end

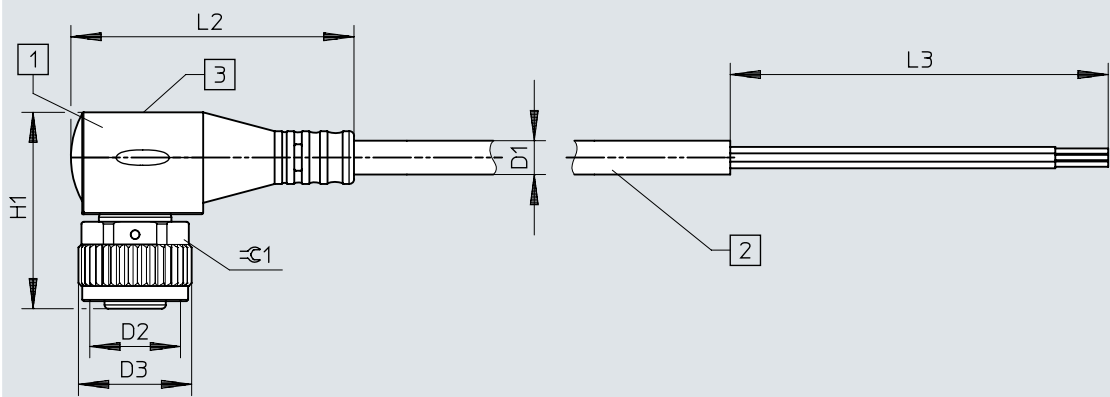
[Download CAD data](http://www.festo.com) www.festo.com


- [1] Socket
- [2] Cable, length depending on the order
- [3] Display field

	D1 Ø	D2	D3 Ø	L2	L3	≈ 1
NEBU-M12G5-E-...-Q8N-LE5	7	M12x1	15	47,5	50	13
SIM-M12-8GD-...-PU	6,2	M12x1	14,5	-	70	-

Dimensions

Dimensions – Connecting cables, angled - open cable end Download CAD data www.festo.com

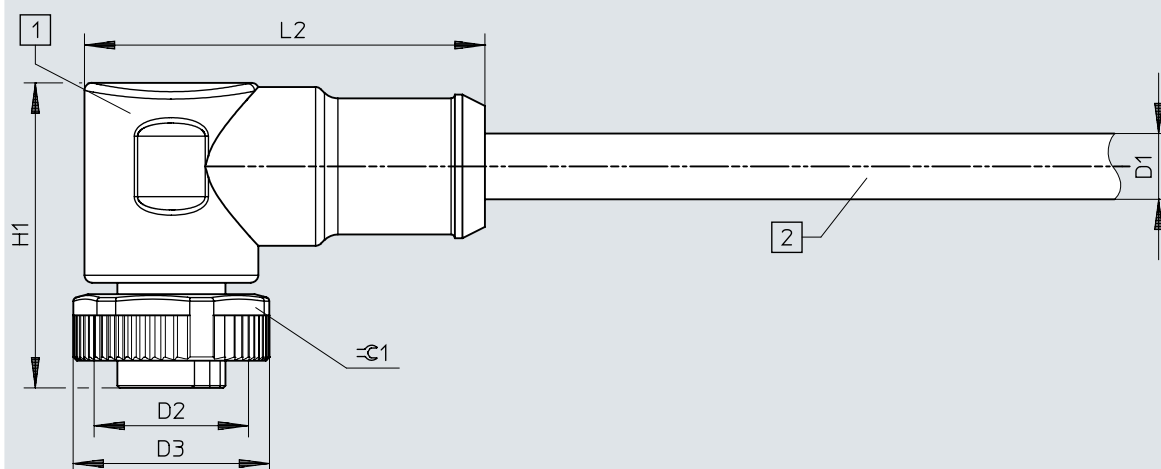


- [1] Socket
- [2] Cable, length depending on the order
- [3] Display field

	D1 Ø	D2	D3 Ø	L2	L3	H1
NEBU-M12W8-K-...-N-LE8	6,3	M12x1	14,5	33,5	70	26,2

Dimensions

Dimensions – Connecting cables, G7/8 5-pin

[Download CAD data](#) www.festo.com


[1] Socket G//8

[2] Cable, length 2 m

	D1 Ø	D2	D3 Ø	L2	H1	$\pm C1$
NEBU-G78W5-K-2-N-LE5	8,7	7/8"	26	53	40,4	24

Ordering data

Ordering data –Socket M12, 5-pin, conductor nominal cross-section 1 qmm

	Electrical connection 1, cable outlet	Electrical connection 2, connection type	Cable length	Product weight	Part no.	Type
	Straight	Cable	5 m	422 g	8078303	NEBU-M12G5-E-5-Q8N-LE5
			10 m	822 g	8078304	NEBU-M12G5-E-10-Q8N-LE5

Socket M12, 5-pin, conductor nominal cross-section 1 qmm

	Electrical connection 1, cable outlet	Electrical connection 2, connection type	Cable length	Product weight	Part no.	Type
	Straight	Plug	5 m	434 g	574321	NEBU-M12G5-E-5-Q8N-M12G5
			7.5 m	635 g	574322	NEBU-M12G5-E-7.5-Q8N-M12G5
			10 m	835 g	574323	NEBU-M12G5-E-10-Q8N-M12G5

Socket M12, 8-pin

	Electrical connection 1, cable outlet	Electrical connection 2, connection type	Cable length	Product weight	Part no.	Type
	Straight	Cable	2 m		525616	SIM-M12-8GD-2-PU
			5 m	343 g	525618	SIM-M12-8GD-5-PU
			10 m		570008	SIM-M12-8GD-10-PU
			15 m		5105631	SIM-M12-8GD-15-PU
			20 m		5105632	SIM-M12-8GD-20-PU
			25 m		5105633	SIM-M12-8GD-25-PU
	Angled	Cable	2 m	125 g	542256	NEBU-M12W8-K-2-N-LE8
			5 m	292 g	542257	NEBU-M12W8-K-5-N-LE8
			10 m	570 g	570007	NEBU-M12W8-K-10-N-LE8
			15 m	848 g	8048086	NEBU-M12W8-K-15-N-LE8

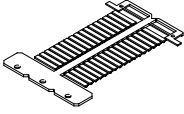
Ordering data – M12 socket, 8-pin

	Electrical connection 1, cable outlet	Electrical connection 2, connection type	Cable length	Product weight	Part no.	Type
	Straight	Plug	2 m	140 g	525617	KM12-8GD8GS-2-PU

Socket G7/8

	Electrical connection 1, cable outlet	Electrical connection 2, connection type	Cable length	Product weight	Part no.	Type
	Angled	Cable	2 m	680 g	573855	NEBU-G78W5-K-2-N-LE5

Accessories

Inscription labels				
	Size	Part no.	Type	
	4x23 mm	541598	ASLR-L-423	

Safety clip				
	Function	Size	Part no.	Type
	Safety clip	M8	548067	NEAU-M8-GD
		M12	548068	NEAU-M12-GD