Universal plug connectors, for self-assembly

FESTO



Universal plug connectors, for self-assembly Product range overview



Version	Туре	Connection cross section	Connector type	Electrical connection	Protection class	Bus protocol/activat	→ Page/ Internet
Harax® quick co	nnaction	[mm ²]				ion	
narax® quick co	NECU-SHX	0.14 0.34	Plug	M8x1, 3-pin	IP65, IP67	_	3
	NECO-5IIA	0.14 0.54	riug	M8x1, 4-pin	11 05, 11 07		
				M12x1, 3-pin, A-coded			
_				M12x1, 4-pin, A-coded			
		0.34 0.75		M12x1, 3-pin, A-coded			
		0.54 0.75		M12x1, 4-pin, A-coded			
				W12X1, 4-pm, A-coded		1	
Screw terminal							
	NECU-S-M8G4	0.14 0.5	Plug	M8x1, 4-pin	IP67	-	5
	-0-						
	NECUD12C2	0.14 0.75	Plug	M12x1, 4-pin, D-coded	IP65, IP67	Ethernet	6
	NECUS-B12G5	0.14 0.75	Plug	M12x1, 5-pin, B-coded	IP65, IP67	_	7
	NECUB12G5	0.14 0.75	Socket	M12x1, 5-pin, B-coded	IP65, IP67	-	8
	NECU-G78C2	0.25 2	Socket	G7/8", 4-pin G7/8", 5-pin	IP65, IP67, IP68	-	9
Cable connector			T	T	T		1
	NECU-M8G4	0.14 0.5	Socket	M8x1, 4-pin	IP67	_	10
	SIE-GD	0.25 0.75	Socket	M12x1, 4-pin	IP67	-	11
8	SIE-WD-TR	0.25 0.75	Socket	M12x1, 4-pin	IP67	-	12
Spring-loaded to		0.75 2.5	Cocket	AIDA nuch null 5 min	IDGE IDG7		112
	NECUPPG5	0.75 2.5	Socket	AIDA push-pull, 5-pin	IP65, IP67	_	13

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→ Internet: www.festo.com/catalog/...



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Plug NECU-S-...-HX

Reconnectable M8 and M12 round plug connectors with $\operatorname{\mathsf{Harax}}^{\ensuremath{\mathbb{R}}}$ quick connection technology for low-voltage applications.



General technical data									
NECU-S-		M8G3-HX	M8G4-HX	M12G3-HX	M12G4-HX	M12G3-HX-Q7	M12G4-HX-Q7		
Electrical connection	Electrical connection		Straight plug / insulation displacement connector						
		M8x1		M12x1		M12x1			
				A-coded		A-coded			
		3-pin	4-pin	3-pin	4-pin	3-pin	4-pin		
Operating voltage range	[V DC]	0 32		0 32		0 48			
	[V AC]	0 32		0 32		0 48			
Surge capacity	[kV]	0.8		•					
Acceptable current load	[A]	4		4		6			
at 40 °C									
Based on standard		EN 61076-2-104 EN 61076-2-101							
		EN 61984							
Cable diameter	[mm]	2.5 5.1		2.9 5.1		4.7 6.0			
Individual wire diameter	[mm]	≥0.1							
Connection cross section	[mm ²]	0.14 0.34		0.14 0.34		0.34 0.75			
Wire diameter	[mm]	0.9 1.6		0.9 1.6		1.6 2.0			
Wire insulation		PP		PP		-			
		PVC							
		TPE-E		TPE-E		-			
Connection frequency		3							
Max. tightening torque	[Nm]	0.3		0.5		0.5			
of locking clip									
Protection class		IP65	<u> </u>		<u> </u>		<u> </u>		
		IP67							

Materials	laterials				
Housing	PA				
	Nickel-plated die-cast zinc				
Seals	FPM				
	PUR				
Pin contact	Gold-plated				
Note on materials	Free of copper and PTFE				
	RoHS-compliant				

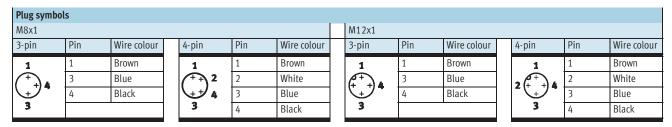
Operating and environmental conditions	perating and environmental conditions				
Ambient temperature [°C]	-25 +85				
Corrosion resistance class CRC ¹⁾	1				
Degree of contamination	3				
Certification	cULus recognized (OL)				

¹⁾ Corrosion resistance class 1 according to Festo standard 940 070 Components subject to low corrosion stress. Transport and storage protection. Parts that do not have primarily decorative surface requirements, e.g. in internal areas that are not visible or behind covers.

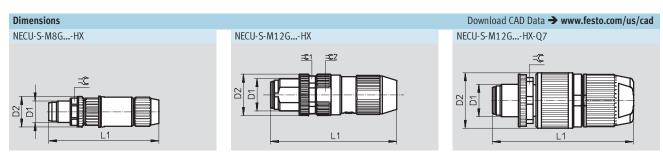
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Compatibility m	atrix						
NECU-S-	M8G3-HX	M8G4-HX	M12G3-HX	M12G4-HX	M12G3-HX-Q7	M12G4-HX-Q7	
Sensors							
NEBU/SIM	•				-	-	
SM8/M	•				-	-	
SM10/M	-	-	-	-	-	-	
SM10	-	-	-	-	-	-	
		•	•	•	•	•	
Valves							
KME-1	-	-	-	_			
KMEB-3	-	-	-	-			
KMEB-1	-	-	-	-			
KMC-1	-	-	-	-			
KMF-1	-	-	-	-			
KMV-1	-	-	-	-			
KMYZ-2/3/7/9	•				-	-	
NEBV-M8W4L	•			•	-	-	
NEBV-M8G4L	•			•	-	-	
NEBV-H1G2	•			•	•		
KMEB-2	-	-	-	-	•		



Туре	D1	D2	L1	≈	= ©1	= ©2
NECU-S-M8GHX	M8x1	11.5	40.8	9	-	-
NECU-S-M12GHX	M12x1	15.3	46.75	-	13	14
NECU-S-M12GHX-Q7	M12x1	20.5	52.2	17	-	-

Ordering data				
Connection cross	Electrical connection	Weight	Part No.	Туре
section				
[mm ²]		[g]		
0,14 0,34	Plug M8x1, 3-pin, straight, insulation displacement connector	7.8	562024	NECU-S-M8G3-HX
	Plug M8x1, 4-pin, straight, insulation displacement connector	7.8	562025	NECU-S-M8G4-HX
	Plug M12x1, A-coded, 3-pin, straight, insulation displacement connector	17.5	562027	NECU-S-M12G3-HX
	Plug M12x1, A-coded, 4-pin, straight, insulation displacement connector	17.5	562028	NECU-S-M12G4-HX
0,34 0,75	Plug M12x1, A-coded, 3-pin, straight, insulation displacement connector	32.8	564946	NECU-S-M12G3-HX-Q7
	Plug M12x1, A-coded, 4-pin, straight, insulation displacement connector	33.3	564947	NECU-S-M12G4-HX-Q7



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5

Plug NECU-S-M8G4

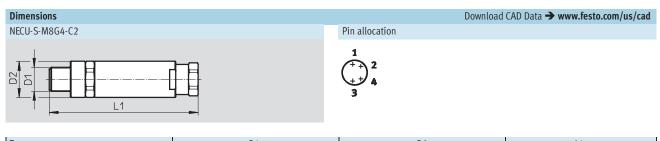
- Plug
- 4-pin
- Can be assembled with any cable length



General technical data		
Electrical connection		Plug M8x1, 4-pin, straight, screw terminal
Plug coding		Coded via contact arrangement
Operating voltage range	[V DC]	0 30
	[V AC]	0 30
Surge capacity	[kV]	0.8
Acceptable current load	[A]	4
Based on standard		EN 61076-2-101
		EN 61984
Transmission characteristics		DIN EN 50173 / CAT 5
Permissible cable \varnothing	[mm]	3.5 5.0
Connection cross section	[mm ²]	0.14 0.5
Type of mounting		Via knurled nut
Protection class		IP67

Materials Control of the Control of				
Pin contact	Gold-plated brass			
Union nut	Nickel-plated brass			
Note on materials	RoHS-compliant			

Operating and environmental conditions					
Ambient temperature	[°C]	-25 +85			
Degree of contamination		3			



lype	D1	D2	L1
NECU-S-M8G4-C2	M8	12	49.6

Ordering data		
Electrical connection	Part No.	Туре
Plug M8x1, 4-pin, straight	1068198	NECU-S-M8G4-C2



Plug NECU-...-D12...-C2

- Plug for power supply
- 4-pin
- Can be assembled with any cable lengths
- With screw terminal

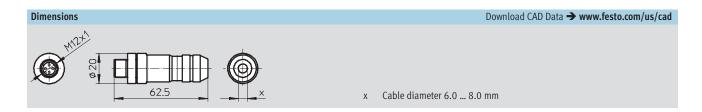


General technical data		
Electrical connection		Plug M12x1, round plug connector, 4-pin, straight, suitable for self-assembly, screw terminal, can be screened
Plug coding		D, for Ethernet
Operating voltage range	[V DC]	0 250
	[V AC]	0 250
Surge capacity	[kV]	2.5
Acceptable current load	[A]	4
Based on standard		EN 61076-2-101
		EN 61984
Transmission characteristics		DIN EN 50173 / CAT 5
Permissible cable ∅	[mm]	6.0 8.0
Connection cross section	[mm ²]	0.14 0.75
Protection class		IP65/IP67

Materials	
Housing	Nickel-plated die-cast zinc
Pin contact	Gold-plated brass
Note on materials	Free of copper and PTFE
	RoHS-compliant

Operating and environmental conditions		
Ambient temperature [°C]	-40 +85	
Corrosion resistance class CRC ¹⁾	1	
Degree of contamination	3	
CE mark	To EU Low Voltage Directive	
(see declaration of conformity)		

1) Corrosion resistance class 1 according to Festo standard 940 070 Components subject to low corrosion stress. Transport and storage protection. Parts that do not have primarily decorative surface requirements, e.g. in internal areas that are not visible or behind covers.



Ordering data			
Electrical connection	Weight	Part No.	Туре
	[g]		
Plug M12x1, round plug connector, 4-pin, straight, suitable for self-assembly, screw terminal,	47	543109	NECU-M-S-D12G4-C2-ET
can be screened			



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Plug NECU-S-B12G5

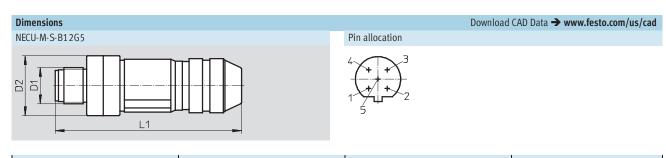
- Plug
- 5-pin
- Can be assembled with any cable length



General technical data		
Electrical connection		Plug M12x1, 5-pin, straight, screw terminal
Plug coding		B, for Profibus
Operating voltage range	[V DC]	0 60
	[V AC]	0 60
Surge capacity	[kV]	1.5
Acceptable current load	[A]	4
Based on standard		EN 61076-2-101
		EN 61984
Transmission characteristics		DIN EN 50173 / CAT 5
Permissible cable Ø	[mm]	6 8
Connection cross section	[mm ²]	0.14 0.75
Protection class		IP65/IP67

Materials	
Housing	Nickel-plated die-cast zinc
Pin contact	Gold-plated brass
Note on materials	RoHS-compliant

Operating and environmental conditions		
Ambient temperature [°C]	-25 +85	
Degree of contamination	3	
CE mark	To EU Low Voltage Directive	
(see declaration of conformity)		



NECU-M-S-B12G5 M12 20 62.5	Туре	D1	D2	L1
	NECU-M-S-B12G5	M12	20	62.5

Ordering data		
Electrical connection	Part No.	Туре
Plug M12x1, 5-pin, straight	1066354	NECU-M-S-B12G5-C2-PB

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Socket NECU-B12G5

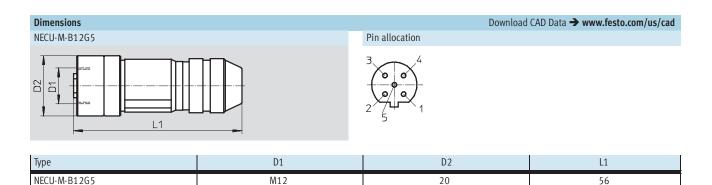
- Socket
- 5-pin
- Can be assembled with any cable length



General technical data		
Electrical connection		Socket M12x1, 5-pin, straight, screw terminal
Plug coding		B, for Profibus
Operating voltage range	[V DC]	0 60
	[V AC]	0 60
Surge capacity	[kV]	1.5
Acceptable current load	[A]	4
Based on standard		EN 61076-2-101
		EN 61984
Transmission characteristics		DIN EN 50173 / CAT 5
Permissible cable \varnothing	[mm]	68
Connection cross section	[mm ²]	0.14 0.75
Protection class		IP65/IP67

Materials	
Housing	Nickel-plated die-cast zinc
Pin contact	Gold-plated brass
Note on materials	RoHS-compliant

Operating and environmental conditions		
Ambient temperature [°C]	-25 +85	
Degree of contamination	3	
CE mark	To EU Low Voltage Directive	
(see declaration of conformity)		



Ordering data		
Electrical connection	Part No.	Туре
Socket M12x1, 5-pin, straight	1067905	NECU-M-B12G5-C2-PB



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Power supply socket NECU-G78...-C2

- Power supply socket for fieldbus connection
- 4-pin and 5-pin
- Can be assembled with any cable lengths
- With screw terminal
- Wire cross section of up to 2 mm²



General technical data			
Туре		NECU-G78G4-C2	NECU-G78G5-C2
Electrical connection		Socket 7/8", round plug connector, 4-pin, straight,	Socket 7/8", round plug connector, 5-pin, straight,
		suitable for self-assembly, screw terminal	suitable for self-assembly, screw terminal
Plug coding		ODVA AutoSIG	NFPA/T3.5.29 R1-2003
Operating voltage range	[V DC]	0 250	
	[V AC]	0 250	
Surge capacity	[kV]	2.5	
Acceptable current load	[A]	8	10
Based on standard		EN 61984	
Permissible cable \varnothing	[mm]	5.0 12.0	
Connection cross section	[mm ²]	0.25 2.0	
Protection class		IP65/IP67/IP68	

Materials	
Housing	PA (colour: black)
Seals	NBR
Pin contact	Gold-plated copper base alloy
Union nut	Nickel-plated brass
Note on materials	Free of copper and PTFE
	RoHS-compliant

Operating and environmental conditions		
Ambient temperature [°C]	-40 +80	
Corrosion resistance class CRC ¹⁾	1	
Degree of contamination	3	
CE mark	To EU Low Voltage Directive	
(see declaration of conformity)		
Certification	CSA C/US (OL)	

¹⁾ Corrosion resistance class 1 according to Festo standard 940 070 Components subject to low corrosion stress. Transport and storage protection. Parts that do not have primarily decorative surface requirements, e.g. in internal areas that are not visible or behind covers.



Ordering data			
Electrical connection	Weight	Part No.	Туре
	[g]		
Socket 7/8", round plug connector, 4-pin, straight, suitable for self-assembly, screw terminal	49	543108	NECU-G78G4-C2
Socket 7/8", round plug connector, 5-pin, straight, suitable for self-assembly, screw terminal	51	543107	NECU-G78G5-C2



Cable socket NECU-M8G4

- Socket for power supply
- 4-pin
- Can be assembled with any cable lengths
- With cable connector PG7

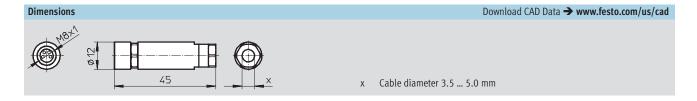


General technical data		
Electrical connection		Socket M8x1, 4-pin, straight
Operating voltage range	[V DC]	030
	[V AC]	030
Surge capacity	[kV]	0.8
Acceptable current load	[A]	3
Based on standard		EN 61984
Permissible cable \varnothing	[mm]	3.5 5.0
Connection cross section	[mm ²]	0.14 0.5
Connection frequency		500
Type of mounting		Via knurled nut
Mounting position		Any
Max. tightening torque	[Nm]	0.3
of plug		
Protection class		IP67

Materials	
Housing	PBT (colour: black)
	Nickel-plated die-cast zinc
Pin contact	Gold-plated brass
Union nut	Nickel-plated brass
Note on materials	RoHS-compliant

Operating and environmental conditions		
Ambient temperature [°C]	-40 +80	
Storage temperature [°C]	-40 +80	
Corrosion resistance class CRC ¹⁾	2	
Degree of contamination	3	

1) Corrosion resistance class 2 according to Festo standard 940 070 Components subject to moderate corrosion stress. 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.



Ordering data			
Electrical connection	Weight	Part No.	Туре
	[g]		
Socket M8x1, 4-pin, straight	9.5	544392	NECU-M8G4



Sensor socket SIE-GD

- Reconnectable for low-voltage applications
- 4-pin
- Can be assembled with any cable lengths
- With cable connector PG7



General technical data		
Electrical connection		Straight socket M12x1, 4-pin
Operating voltage range	[V DC]	0 250
	[V AC]	0 250
Surge capacity	[kV]	2.5
Acceptable current load	[A]	4
at 40 °C		
Conforms to		EN 61076-2-101
		EN 61984
Permissible cable \varnothing	[mm]	4 6
Connection cross section	[mm ²]	0.25 0.75
Connection frequency		50
Type of mounting		Via knurled nut
Max. tightening torque	[Nm]	0.5
Protection class		IP67

Materials		
Housing	PA	
Union nut	PA	
Note on materials	RoHS-compliant	

Operating and environmental conditions		
Ambient temperature [°C]	-25 +85	
Corrosion resistance class CRC ¹⁾	4	
Degree of contamination	3	
CE mark	To EU Low Voltage Directive	
(see declaration of conformity)		

¹⁾ Corrosion resistance class 4 according to Festo standard 940 070 Components subject to particularly high corrosion stress. Parts used with aggressive media, e.g. in the food or chemical industry. These applications should be supported with special tests with the media if required.



Ordering data		
Electrical connection	Part No.	Туре
Straight socket M12x1, 4-pin	18494	SIE-GD

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Angled socket SIE-WD-TR

- Reconnectable for low-voltage applications
- 4-pin
- Can be assembled with any cable lengths

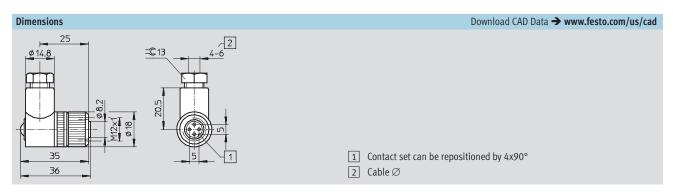


General technical data		
Electrical connection		Angled socket M12x1, 4-pin
Operating voltage range	[V DC]	0 250
	[V AC]	0 250
Surge capacity	[kV]	2.5
Acceptable current load	[A]	4
at 40 °C		
Conforms to		EN 61076-2-101
		EN 61984
Permissible cable Ø	[mm]	46
Connection cross section	[mm ²]	0.25 0.75
Connection frequency		50
Type of mounting		Via knurled nut
Max. tightening torque	[Nm]	0.5
Protection class		IP67

Materials		
Housing	PA	
Union nut	PA	
Note on materials	RoHS-compliant RoHS-compliant	

Operating and environmental conditions		
Ambient temperature [°C]	-25 +85	
Corrosion resistance class CRC ¹⁾	4	
Degree of contamination	3	
CE mark	To EU Low Voltage Directive	
(see declaration of conformity)		

1) Corrosion resistance class 4 according to Festo standard 940 070 Components subject to particularly high corrosion stress. Parts used with aggressive media, e.g. in the food or chemical industry. These applications should be supported with special tests with the media if required.



Ordering data					
	Electrical connection	Part No.	Туре		
Angled socket	Angled socket M12x1, 4-pin	12956	SIE-WD-TR		



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Socket NECU-PPG5

- Power supply socket
- 5-pin
- Can be assembled with any cable length



General technical data			
Electrical connection		Socket AIDA push-pull, 5-pin, straight, spring-loaded terminal	
Plug coding		Black insulator	
Operating voltage range	[V DC]	0 24	
Surge capacity	[kV]	2.5	
Acceptable current load	[A]	16	
Based on standard		EN 61984	
Permissible cable ∅	[mm]	913	
Connection cross section	[mm ²]	0.75 2.5	
Protection class		IP65/IP67	

Materials	
Housing	Nickel-plated die-cast zinc
Housing colour	Silver
Seals	NBR, TPE
Pin contact	Nickel-plated and gold-plated copper based alloy
Note on materials	RoHS-compliant

Operating and environmental conditions		
Ambient temperature [°C]	-40 +100	
Degree of contamination	3	
Fire protection classification to UL 94	V-0	

Ordering data		
Electrical connection	Part No.	Туре
Socket AIDA push-pull, 5-pin, straight	563059	NECU-M-PPG5-C1

Universal plug connectors SIE, for self-assembly Accessories

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Operational status indicator SIE-LP-LED-GR

Indicates the ready status of a proximity sensor SIE connected via the angled socket SIE-WD-TR by illuminating a green LED



Ordering data			
Operating voltage range	Ambient temperature	Part No.	Туре
[V DC]	[°C]		
10 30	-25 +70	12957	SIE-LP-LED-GR

Product Range and Company Overview

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Custom Automation Components Complete custom engineered solutions



Custom Control Cabinets Comprehensive engineering support and on-site services



Complete Systems Shipment, stocking and storage services

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Pneumatics Pneumatic linear and rotary actuators, valves, and air supply



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Quality Assurance, ISO 9001 and ISO 14001 Certifications

Festo Corporation is committed to supply all Festo products and services that will meet or exceed our customers' requirements in product quality, delivery, customer service and satisfaction.

To meet this commitment, we strive to ensure a consistent, integrated, and systematic approach to management that will meet or exceed the requirements of the ISO 9001 standard for Quality Management and the ISO 14001 standard for Environmental Management.



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