

Electrical connection technology, for power supply

Product range overview

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Overview of power supply for valve terminals									
Plug	Valve terminal								→ Page
	Type 04	Type 10 ¹⁾	Type 03	DN1	AS1	Type 02	Type ECP	Type 50	
FBSD-GD-7	-	■	-	■	■	-	-	-	4 / 5.1-87
FBSD-GD-9	-	■	-	■	■	-	-	-	4 / 5.1-87
FBSD-GD-13,5	-	■	-	■	■	-	-	-	4 / 5.1-87
FBSD-WD-7	-	■	-	■	■	-	-	-	4 / 5.1-87
FBSD-WD-9	-	■	-	■	■	-	-	-	4 / 5.1-87
NTSD-GD-9	■	-	■	-	-	■	■	■	4 / 5.1-114
NTSD-GD-13,5	■	-	■	-	-	■	■	■	4 / 5.1-114
NTSD-WD-7	■	-	■	-	-	■	■	■	4 / 5.1-114
NTSD-WD-9	■	-	■	-	-	■	■	■	4 / 5.1-114
NTSD-WD-11	■	-	■	-	-	■	■	■	4 / 5.1-114
PS1-SAC10-10POL	-	■	-	-	-	-	-	-	4 / 5.1-116

1) Power supply CPV Direct

Type 10/type 12

In the case of valve terminals type 10 and type 12 with bus interface, the voltage is supplied via the CP installation system (type ECP).

Type 32

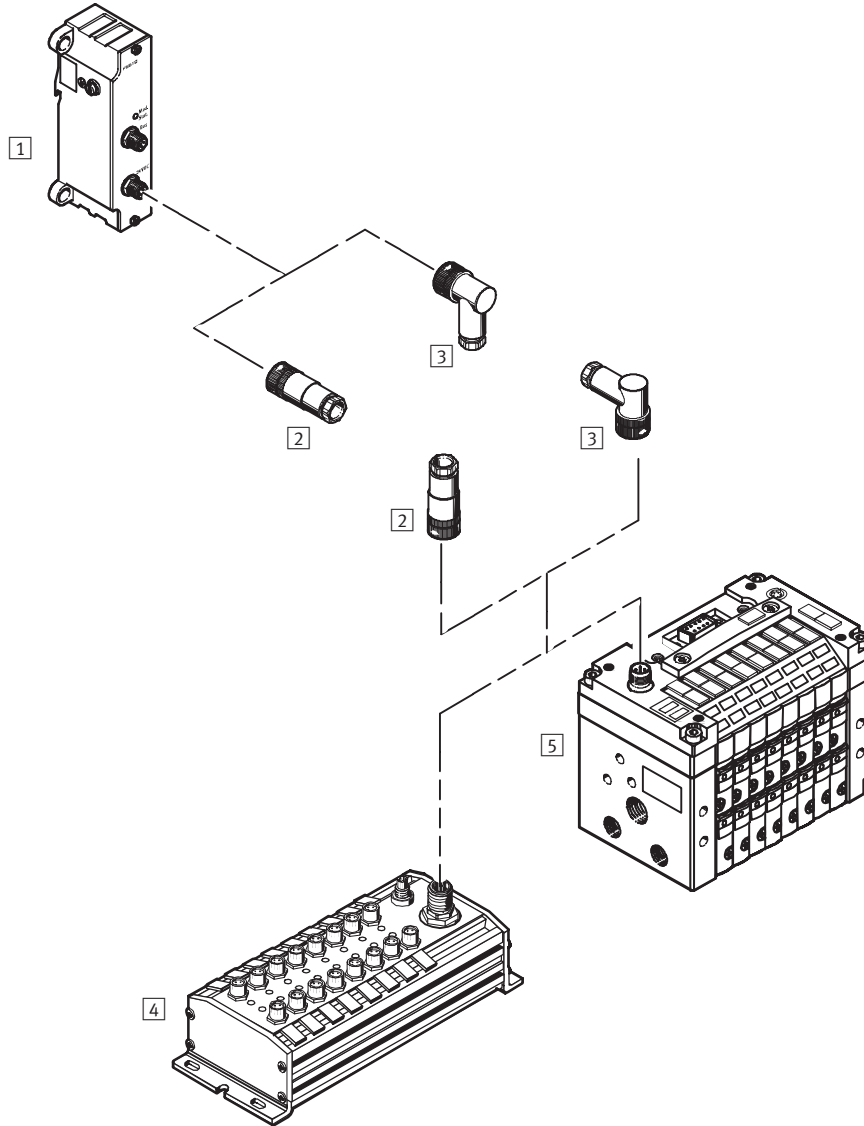
In the case of valve terminal type 32 with bus interface, the voltage is supplied via the CPX terminal (type 50).

Electrical connection technology, for power supply

Peripherals overview



Power supply via M12 connection



Accessories for valve terminals
Electrical connector systems

5.1

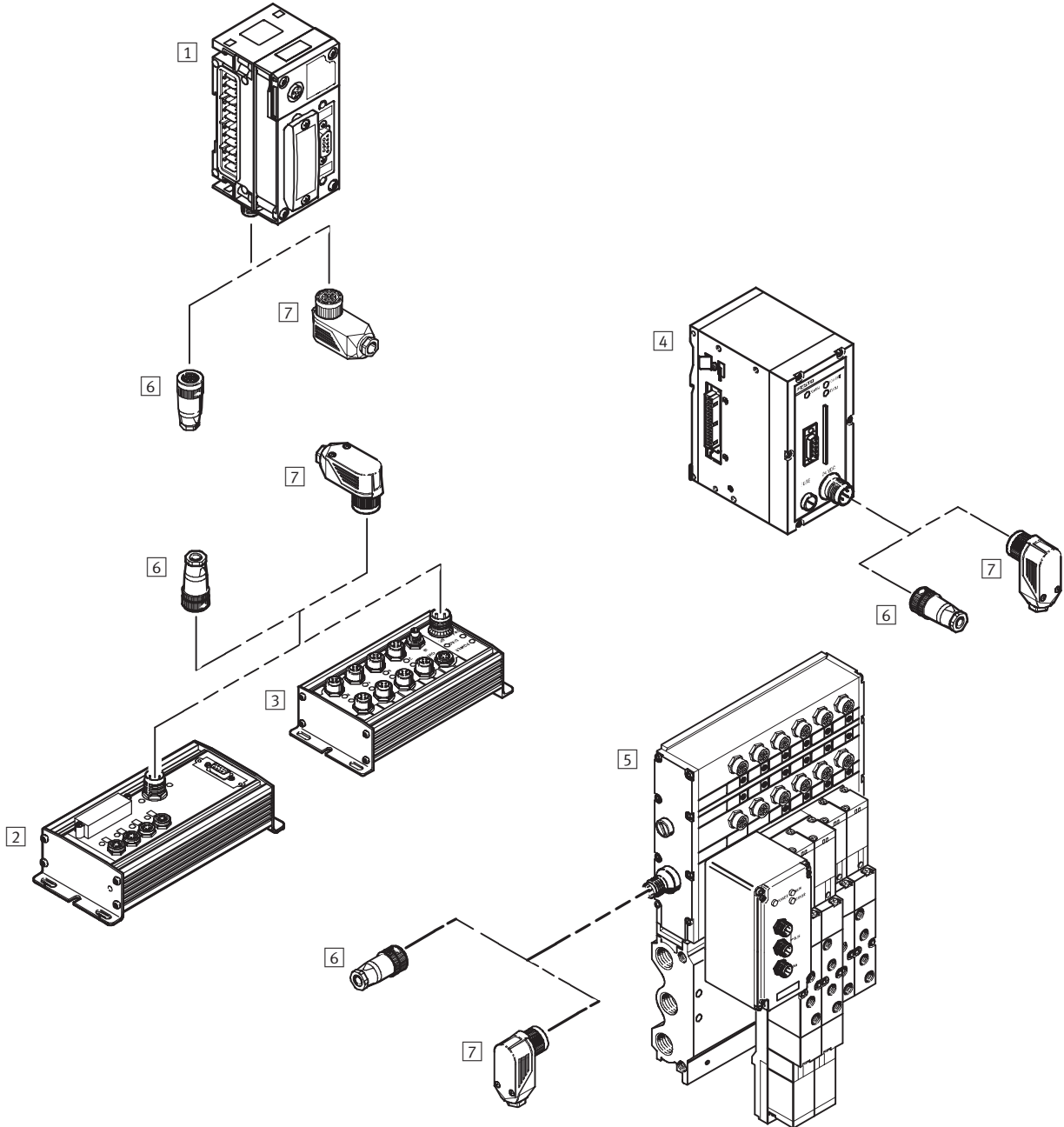
Accessories		
	Brief description	→ Page
1	VIDN-03-8A Bus node for type 03 (DeviceNet interface)	4 / 4.8-152
2	FBSD-GD-... Fieldbus connection, straight socket	4 / 5.1-87
3	FBSD-WD-7 Fieldbus connection, angled socket, Pg7	4 / 5.1-87
	FBSD-WD-9 Fieldbus connection, angled socket, Pg9	4 / 5.1-87
4	CP-E16-M8-Z Input module, 16 inputs	4 / 4.6-39
5	CPV-...-GE-...-8 Valve terminal, CPV Direct	4 / 4.7-1

Electrical connection technology, for power supply

Peripherals overview

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Power supply via M18 connection



Electrical connection technology, for power supply

Peripherals overview

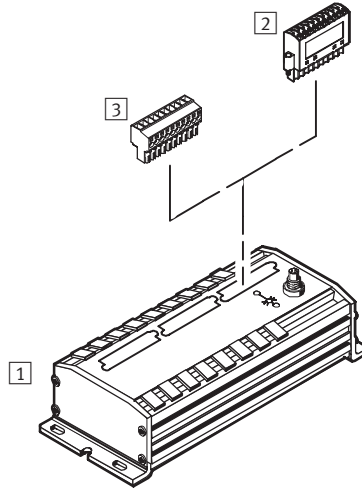
Accessories			
	Brief description	→ Page	
1	CPX-FB...	Fieldbus node, CPX terminal, type 50	4 / 4.8-1
2	CP-FB05-E	Fieldbus node, CPI installation system	4 / 4.6-1
3	CP-A08-M12-5POL	Output module, CPI installation system	4 / 4.6-53
4	IFB...-03	Fieldbus node, valve terminal type 03/04, Midi/Maxi	4 / 4.8-117
5	VIFB-02	Valve terminal type 02, Tiger 2000	4 / 2.3-1
6	NTSD-GD-...	Power supply socket, straight	4 / 5.1-114
7	NTSD-WD-...	Power supply, angled socket	4 / 5.1-114

Electrical connection technology, for power supply

Peripherals overview

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Power supply via terminal strip



Accessories			
	Brief description	→ Page	
1	CP-E16-KL-IP20-Z	Input module with additional power supply for sensors, CPI installation system	4 / 4.6-39
2	SEA-KL-SAC	Connection set, tension-spring socket	4 / 5.1-116
3	PS1-ZC13-5	Screw terminal socket, 10-pin	4 / 5.1-116

Electrical connection technology, for power supply

Technical data – NTSD



- Plug/socket for power supply
- Can be fabricated with any cable lengths
- 4-pin plug socket
- With screw terminals
- Wire cross section of up to 2.5 mm²



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General technical data	
Type	NTSD-...
Type of mounting	M18 union nut
Mounting position	Any
Operating voltage range	[V] 250 AC
Current-carrying capacity	[A] 16
Protection class to EN 60 529	IP67 (assembled)
Material of housing	Polybuteneterephthalate
Material of contacts	Brass/copper base alloy
Storage temperature	[°C] -20 ... +70
Ambient temperature	[°C] -5 ... +50

Ordering data							
	Electrical connection	Cable gland fitting	Permissible cable diameter [mm]	Max. wire cross section [mm ²]	Product weight [g]	Type	Part No.
	Socket, straight, 4-pin, screw terminal	Pg9	6 ... 8	1.5	25	NTSD-GD-9	18 493
	Socket, straight, 5-pin, screw terminal, B-coded	Pg9	6 ... 8	0.75	25	NTSD-GD-9-M12-5POL-RK	538 999
	Socket, straight, 4-pin, screw terminal	Pg13.5	10 ... 12	2.5	31	NTSD-GD-13,5	18 526
	Socket, angled, 4-pin, screw terminal	Pg9	6 ... 8	1.5	30	NTSD-WD-9	18 527
	Socket, angled, 4-pin, screw terminal	Pg11	5 ... 11	2.5	34	NTSD-WD-11	533 119

Electrical connection technology, for power supply

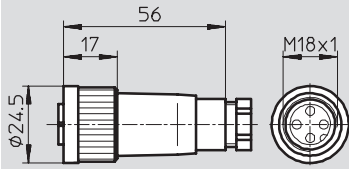
Technical data – NTSD

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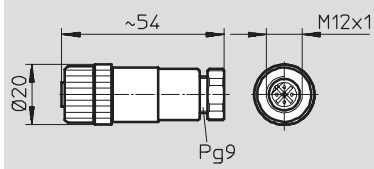
Dimensions

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

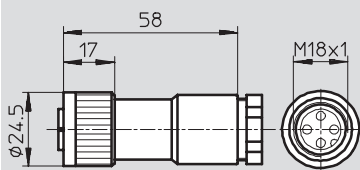
NTSD-GD-9



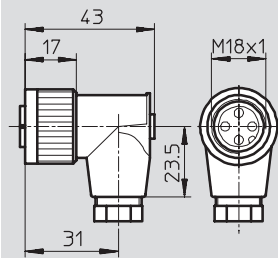
NTSD-GD-9-M12-5POL-RK



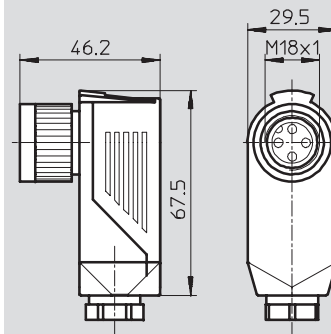
NTSD-GD-13,5



NTSD-WD-9



NTSD-WD-11

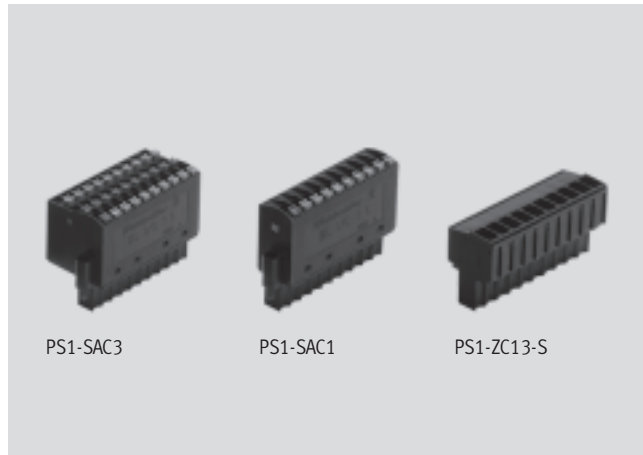


Electrical connection technology, for power supply

Technical data – PS1-SAC-...



- Connector for power supply, 10-pin or 30-pin
- Individually or as a set
- Simple cable connection using clamping technology



PS1-SAC3

PS1-SAC1

PS1-ZC13-S

5.1

General technical data		PS1-SAC-.../SEA-KL-...
Type		PS1-SAC-.../SEA-KL-...
Type of mounting		2 M2x7 screws
Max. wire cross section	[mm ²]	0.08 ... 0.75
Operating voltage range	[V]	50 AC
Material of housing		Polybuteneterephthalate
Ambient temperature	[°C]	-20 ... +100

Ordering data					
	Electrical connection	Current-carrying capacity [A]	Product weight [g]	Type	Part No.
	Socket, 10-pin, terminal strip, 10-pin	4	14	PS1-SAC10-10POL	197 159
	Socket, 10-pin, terminal strip, 10-pin	4	40	PS1-SAC11-10POL+LED	197 160
	Socket, 10-pin, terminal strip, 30-pin	0.5	25	PS1-SAC30-30POL	197 161
	Socket, 10-pin, terminal strip, 30-pin	0.5	25	PS1-SAC31-30POL+LED	197 162
	Socket, 10-pin, terminal strip, 10/30-pin	0.5/4	71	SEA-KL-SAC10/30	526 256
	Screw terminal socket, 10-pin	4	37	PS1-ZC13-10POL-SCHRAUBKL	160 800

Electrical connection technology, for power supply

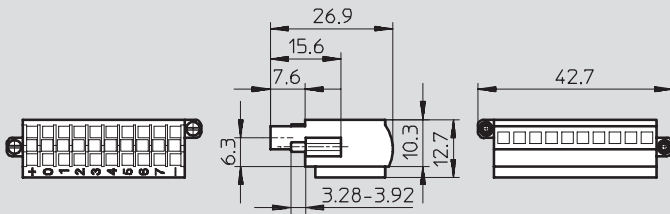
Technical data – PS1-SAC-...



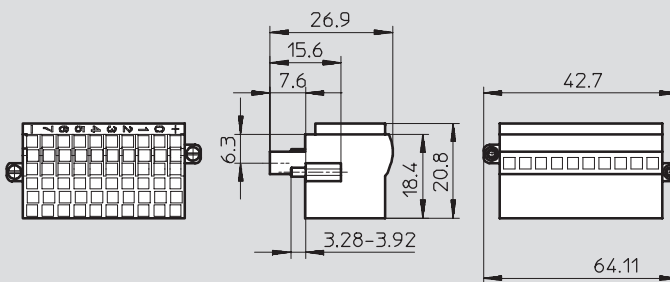
Dimensions

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PS1-SAC10-10POL



PS1-SAC30-30POL



Electrical connection technology, for power supply

Technical data – NECU



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

- Plug, socket for power supply
- 4-pin
- Can be fabricated with any cable lengths
- With screw terminals



General technical data			
Type	NECU-M-S-D12G4-C2-ET		NECU-M8G4
Type of mounting	–		Via knurled nut
Mounting position	–		Any
Operating voltage range	[V DC]	≤ 300	0 ... 60
	[V AC]	≤ 250	0 ... 60
Permissible cable diameter	[mm]	6 ... 8	3.5 ... 5
Connection cross section	[mm ²]	0.14 ... 0.75	0.14 ... 0.5
Plug coding	D, for Ethernet		–
Material of casing	Die-cast zinc, nickel plated		Polybutylene terephthalate
Material of seals	Nitrile rubber		–
Material of contacts	Gold-plated brass		Gold-plated brass
Note on materials	Free of copper and PTFE		–

Operating and environmental conditions		
	NECU-M-S-D12G4-C2-ET	NECU-M8G4
Ambient temperature [°C]	–40 ... +85	–40 ... +80
Corrosion resistance class CRC ¹⁾	1	2

1) Corrosion resistance class 1 according to Festo standard 940 070
 Components requiring low corrosion resistance. 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.
 CRC2: Corrosion resistance class to Festo standard 940 070
 Components with medium corrosion exposure. Externally visible components with significant decorative function in direct contact with normal industrial atmosphere or media such as coolants and lubricants.

Ordering data						
	Electrical connection	Acceptable current load [A]	Protection class to EN 60529	Product weight [g]	Type	Part No.
	Straight plug, screw terminal, round plug connector M12x1, 4-pin	4	IP65/67	47	NECU-M-S-D12G4-C2-ET	543 109
	Straight socket, M8x1, 4-pin	4	IP67	9.5	NECU-M8G4	544 392

Electrical connection technology, for power supply

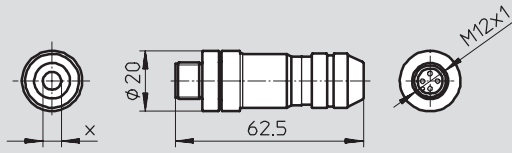
Technical data – NECU

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Dimensions

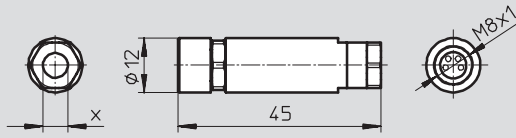
Download CAD data → www.festo.com/en/engineering

NECU-M-S-D12G4-C2-ET



X Cable diameter 6 ... 8 mm

NECU-M8G4



X Cable diameter 3.5 ... 5 mm