

# Electrical connection technology, for inputs/outputs

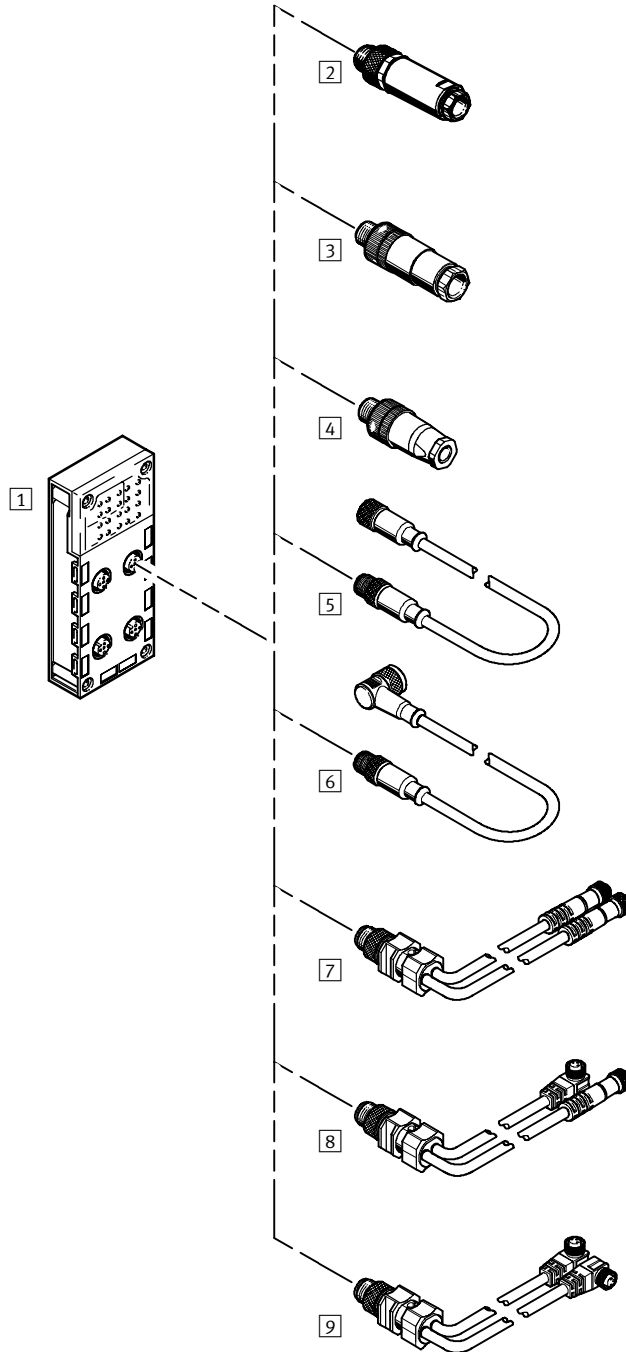
Peripherals overview



## Plugs and cables CPX-AB...

Accessories for valve terminals  
Electrical connector systems

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# Electrical connection technology, for inputs and outputs

Peripherals overview

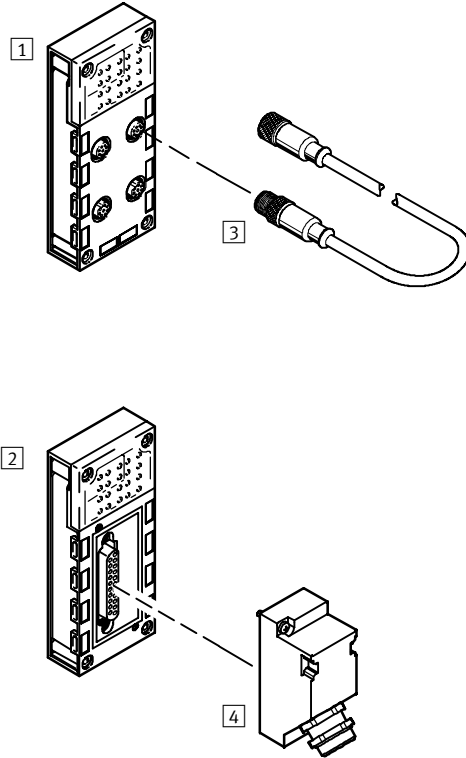
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Accessories			
	Brief description	→ Page	
1	CPX-AB-4-M12x2...5POL	Connection block, CPX terminal	4 / 4.8-45
2	SEA-GS-7	Plug for inputs and outputs, straight socket	4 / 5.1-148
	SEA-4GS-7-2,5	Plug for inputs and outputs, straight socket	4 / 5.1-150
	SEA-GS-9	Plug for inputs and outputs, straight socket	4 / 5.1-148
3	SEA-GS-11-DUO	Plug for inputs and outputs, straight socket, 4-pin, for 2 cables	4 / 5.1-148
	SEA-5GS-11-DUO	Plug for inputs and outputs, straight socket, 5-pin, for 2 cables	4 / 5.1-150
4	SEA-M12-5GS-PG7	Plug for inputs and outputs, 5-pin	4 / 5.1-152
5	KM12-M12-GSGD-...	Extension cable, straight socket	4 / 5.1-24
6	KM12-M12-GSWD-1-4	Extension cable, straight socket/angled socket	4 / 5.1-24
7	KM12-DUO-M8-GDGD	DUO cable, straight sockets	4 / 5.1-140
8	KM12-DUO-M8-GDWD	DUO cable, straight socket/angled socket	4 / 5.1-140
9	KM12-DUO-M8-WDWD	DUO cable, angled sockets	4 / 5.1-140

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CPX-AB-...

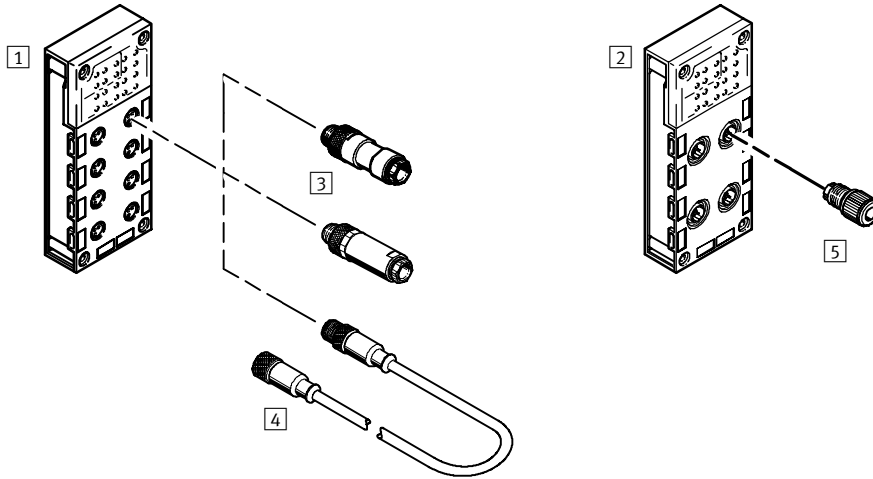


Accessories		
	Brief description	→ Page
1	CPX-AB-4-M12-8POL Connection block, CPX terminal	4 / 4.8-45
2	CPX-AB-1-SUB-BU-25POL Connection block, CPX terminal	4 / 4.8-45
3	KM12-8GD8GS-2-PU Connecting cable, 8-pin (DNCV)	4 / 5.1-138
4	SD-SUB-D-ST25 Plug, Sub-D, 25-pin	4 / 5.1-144

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CPX-AB-...



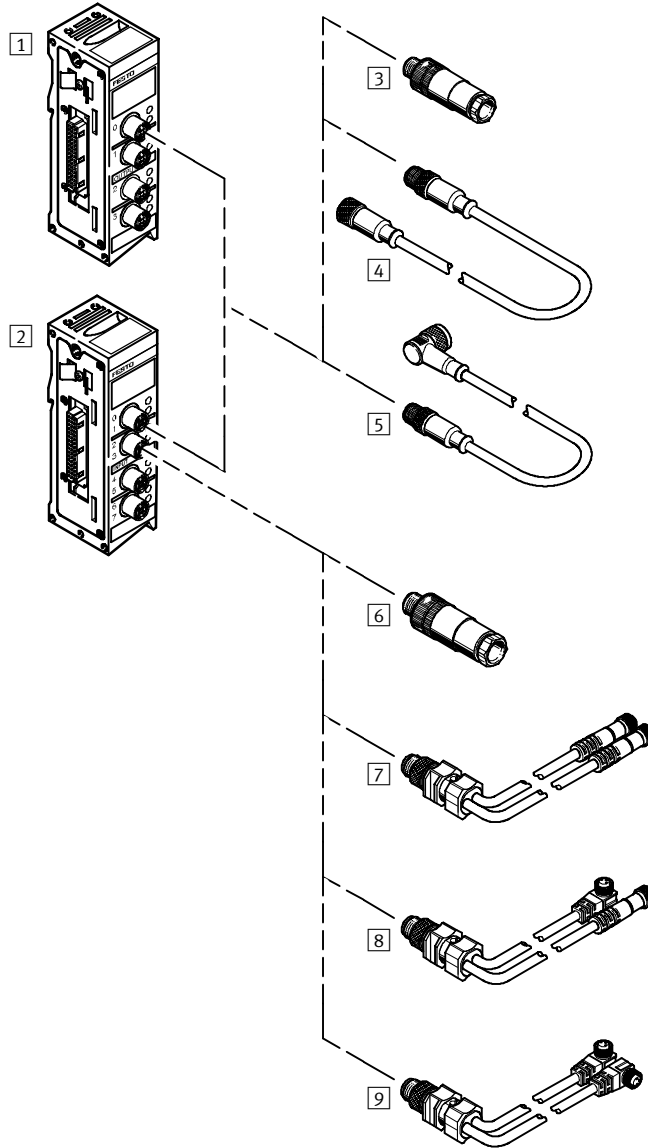
Accessories		Brief description	→ Page
1	CPX-AB-8-M8-3POL	Connection block, CPX terminal	4 / 4.8-45
2	CPX-AB-4-HAR-4POL	Connection block, CPX terminal	4 / 4.8-45
3	SEA-GS-M8 SEA-3GS-M8-S	Plug for inputs and outputs	4 / 5.1-148 4 / 5.1-150
4	KM8-M8-GSGD-... KM8-M12-GSGD-...	Extension cable, with straight plug and straight socket	4 / 5.1-136 4 / 5.1-136
5	SEA-GS-HAR-4POL	Plug for inputs and outputs	4 / 5.1-154

# Electrical connection technology, for inputs and outputs

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## VIGE-03-MP-...-4POL



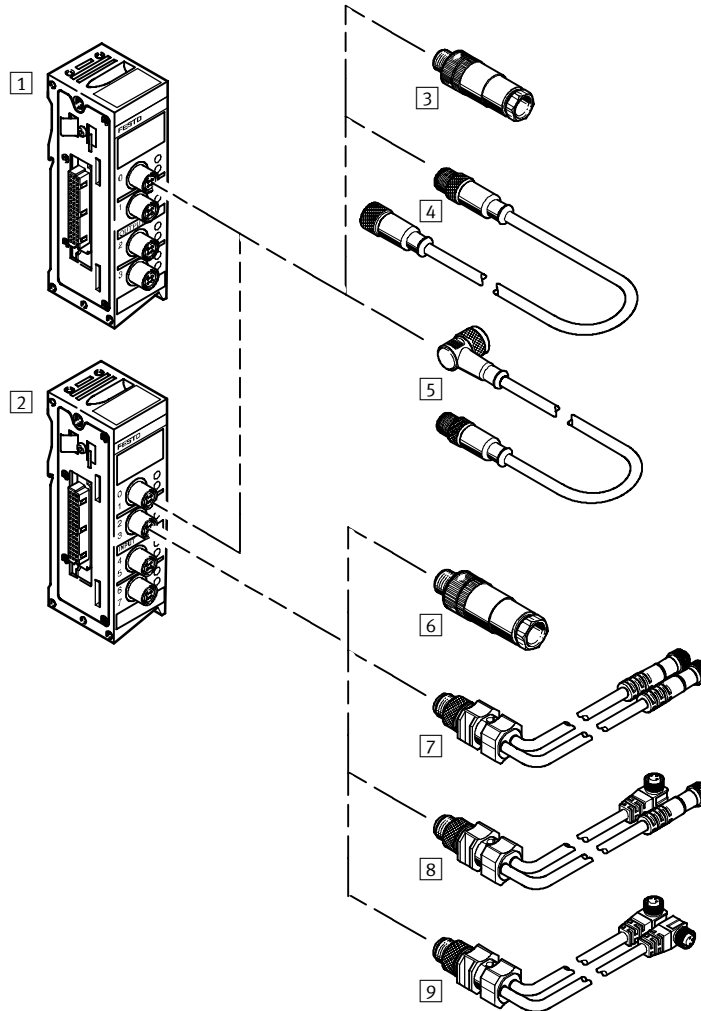
Accessories			
	Brief description	→ Page	
1	VIGE-03-MP-4	Electrical module, electrical peripherals, valve terminal type 03, 4 inputs	4 / 2.2-68
2	VIGE-03-MP-8	Electrical module, electrical peripherals, valve terminal type 03, 8 inputs	4 / 2.2-68
3	SEA-GS-7 SEA-4GS-7-2,5 SEA-GS-9	Plug for inputs and outputs	4 / 5.1-148 4 / 5.1-150 4 / 5.1-148
4	KM12-M12-GSGD-...	Extension cable, with straight plug and straight socket	4 / 5.1-24
5	KM12-M12-GSWD-1-4	Extension cable, straight socket/angled socket	4 / 5.1-24
6	SEA-GS-11-DUO	Plug for inputs and outputs, straight socket	4 / 5.1-148
7	KM12-DUO-M8-GDGD	DUO cable, straight sockets	4 / 5.1-140
8	KM12-DUO-M8-GDWD	DUO cable, straight socket/angled socket	4 / 5.1-140
9	KM12-DUO-M8-WDWD	DUO cable, angled sockets	4 / 5.1-140

# Electrical connection technology, for inputs and outputs

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VIGE-03-FB-...N

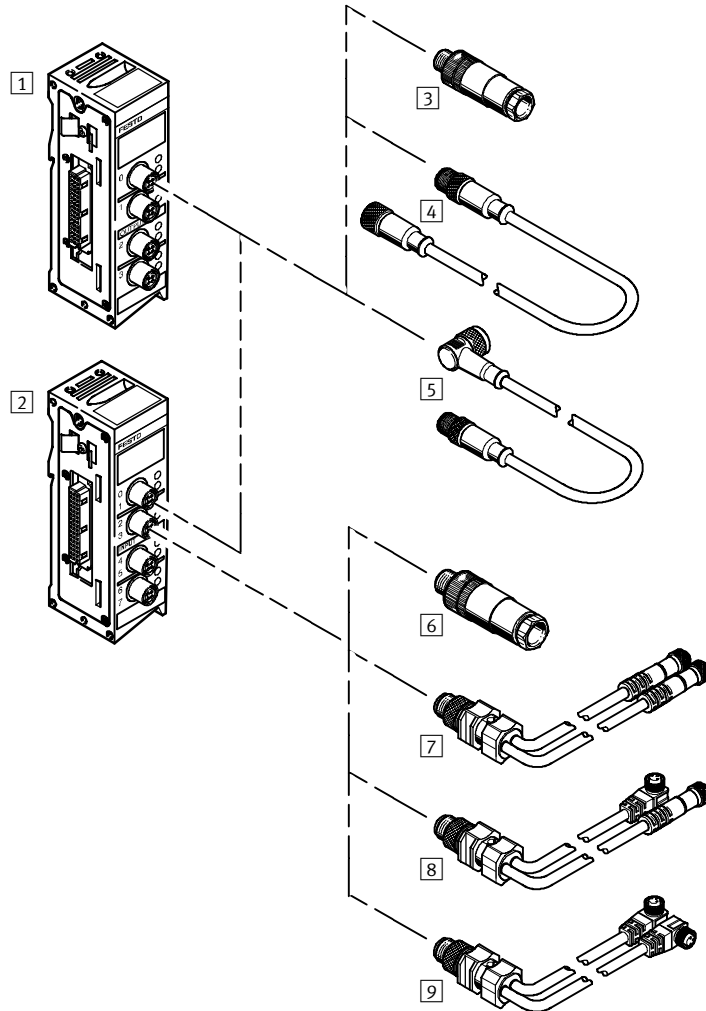


Accessories			
	Brief description	→ Page	
1	VIGE-03-FB-4N	Electrical module, electrical peripherals, valve terminal type 03, 4 inputs	4 / 4.8-144
2	VIGE-03-FB-8N	Electrical module, electrical peripherals, valve terminal type 03, 8 inputs	4 / 4.8-144
3	SEA-GS-7 SEA-4GS-7-2,5 SEA-GS-9	Plug for inputs and outputs, straight socket	4 / 5.1-148 4 / 5.1-150 4 / 5.1-148
4	KM12-M12-GSGD-...	Extension cable, straight sockets	4 / 5.1-24
5	KM12-M12-GSWD-1-4	Extension cable, straight socket/angled socket	4 / 5.1-24
6	SEA-GS-11-DUO	Plug for inputs and outputs	4 / 5.1-148
7	KM12-DUO-M8-GDGD	DUO cable, straight sockets	4 / 5.1-140
8	KM12-DUO-M8-GDWD	DUO cable, straight socket/angled socket	4 / 5.1-140
9	KM12-DUO-M8-WDWD	DUO cable, angled sockets	4 / 5.1-140

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VIGE-03-FB-...-5POL



Accessories for valve terminals  
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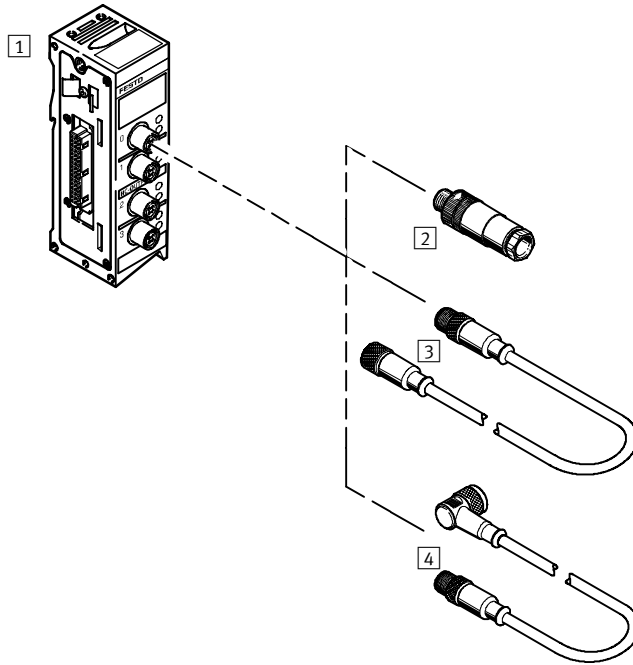
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Accessories		
	Brief description	→ Page
1	VIGE-03-FB-4-5POL Electrical module, electrical peripherals, valve terminal type 03, 4 inputs	4 / 4.8-144
2	VIGE-03-FB-8-5POL VIGE-03-FB-8.1-5POL VIGE-03-FB-8-5POL-S Electrical module, electrical peripherals, valve terminal type 03, 8 inputs	4 / 4.8-144 4 / 4.8-144 4 / 4.8-144
3	SEA-GS-7 SEA-4GS-7-2,5 SEA-GS-9 SEA-M12-5GS-PG7 Plug for inputs and outputs, straight socket	4 / 5.1-148 4 / 5.1-150 4 / 5.1-148 4 / 5.1-152
4	KM12-M12-GSGD-... Extension cable, straight sockets	4 / 5.1-24
5	KM12-M12-GSWD-1-4 Extension cable, straight socket/angled socket	4 / 5.1-24
6	SEA-GS-11-DUO SEA-5GS-11-DUO Plug for inputs and outputs	4 / 5.1-148 4 / 5.1-150
7	KM12-DUO-M8-GDGD DUO cable, straight sockets	4 / 5.1-140
8	KM12-DUO-M8-GDWD DUO cable, straight socket/angled socket	4 / 5.1-140
9	KM12-DUO-M8-WDWD DUO cable, angled sockets	4 / 5.1-140

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VIGA-03-FB-4-...



Accessories		
	Brief description	→ Page
1	VIGA-03-FB-4-PH VIGA-03-FB-4-NH	Electrical module, electrical peripherals, valve terminal type 03, 4 outputs 4 / 4.8-151
2	SEA-GS-7 SEA-4GS-7-2,5 SEA-GS-9 SEA-GS-11-DUO	Plug for inputs and outputs, straight socket 4 / 5.1-148 4 / 5.1-150 4 / 5.1-148 4 / 5.1-148
3	KM12-M12-GSGD-...	Extension cable, straight sockets 4 / 5.1-24
4	KM12-M12-GSWD-1-4	Extension cable, straight socket/angled socket 4 / 5.1-24

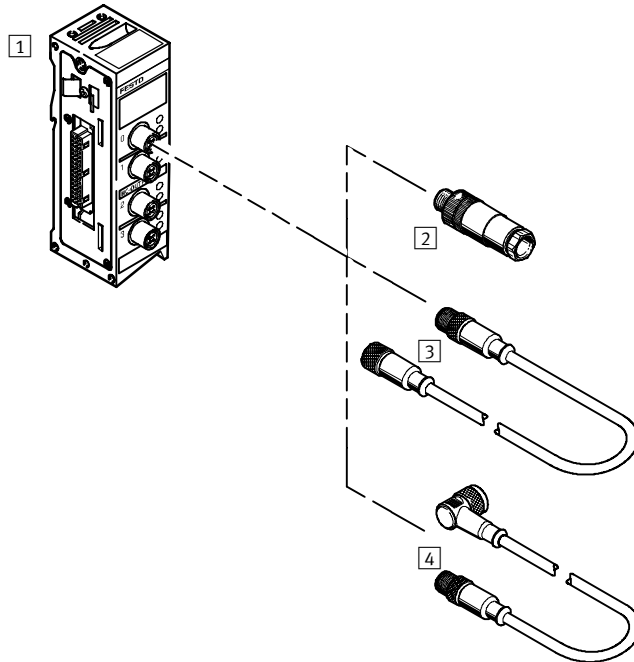


# Electrical connection technology, for inputs and outputs

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## VIGA-03-FB-4-5POL

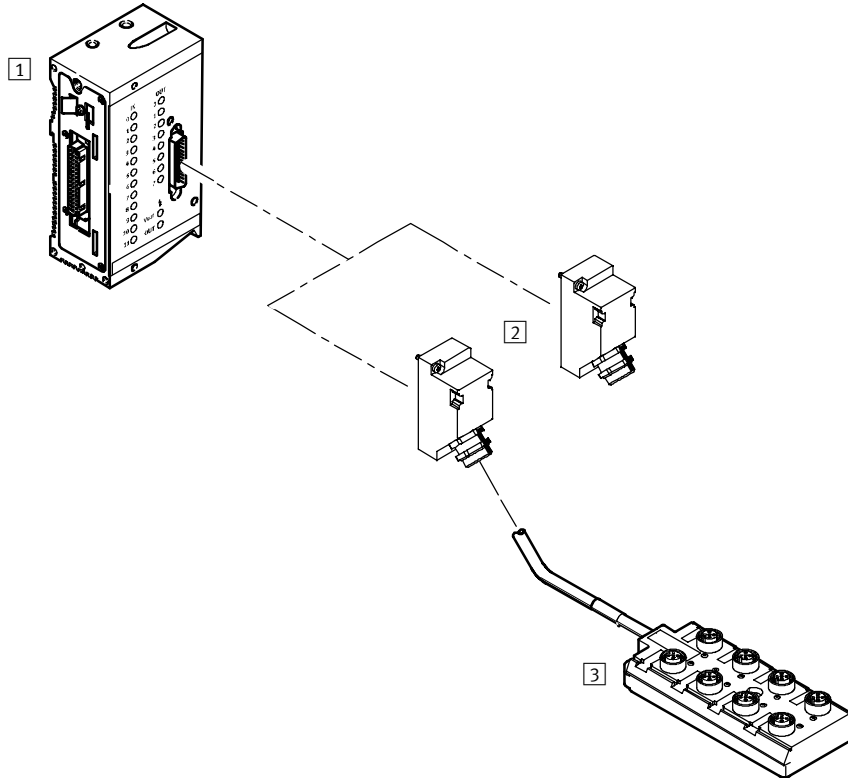


Accessories		
	Brief description	→ Page
1	VIGA-03-FB-4-5POL Electrical module, electrical peripherals, valve terminal type 03, 4 outputs	4 / 4.8-151
2	SEA-GS-7 SEA-4GS-7-2,5 SEA-GS-9 SEA-GS-11-DUO SEA-5GS-11-DUO SEA-M12-5GS-PG7 Plug for inputs and outputs, straight socket	4 / 5.1-148 4 / 5.1-150 4 / 5.1-148 4 / 5.1-148 4 / 5.1-150 4 / 5.1-152
3	KM12-M12-GSGD-... Extension cable, straight sockets	4 / 5.1-24
4	KM12-M12-GSWD-1-4 Extension cable, straight socket/angled socket	4 / 5.1-24

# Electrical connection technology, for inputs and outputs

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VIEA-03-FB-12E-8A-...



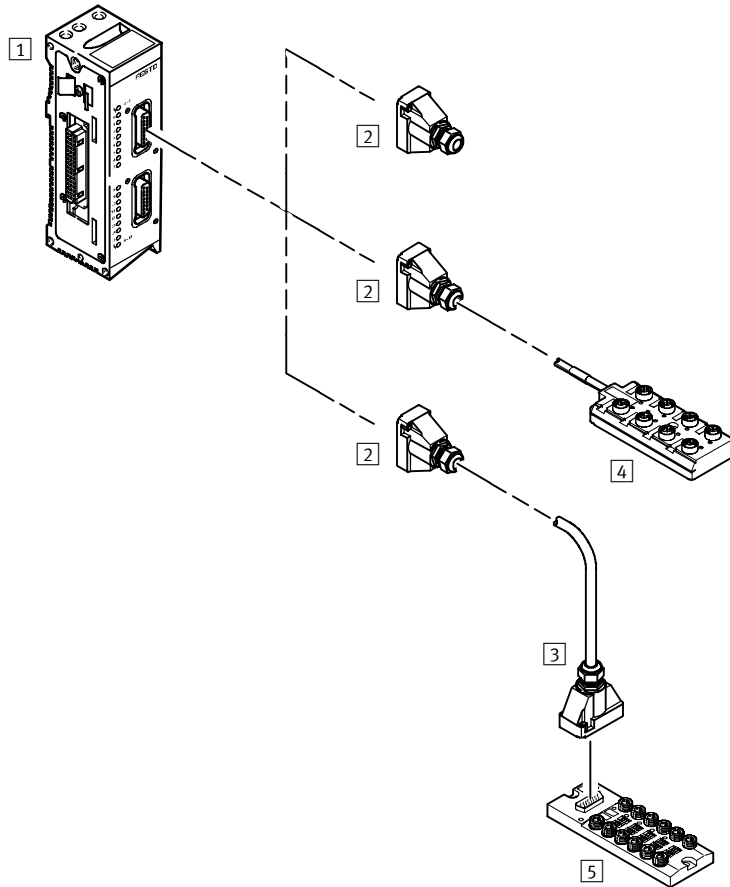
Accessories		Brief description	→ Page
1	VIEA-03-FB-...	Electrical module for valve terminal type 03	4 / 4.8-158
2	KEA-1-25-...	Connecting cable	4 / 5.1-68
	KMP3-25P-22-...	Connecting cable	4 / 5.1-60
	SD-SUB-D-BU25	Plug socket for Sub-D connections	4 / 5.1-72
3	MPV-E-...	Multi-pin plug distributor	4 / 4.8-170

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VIGE-03-FB-16-SUBD-S...



Accessories for valve terminals  
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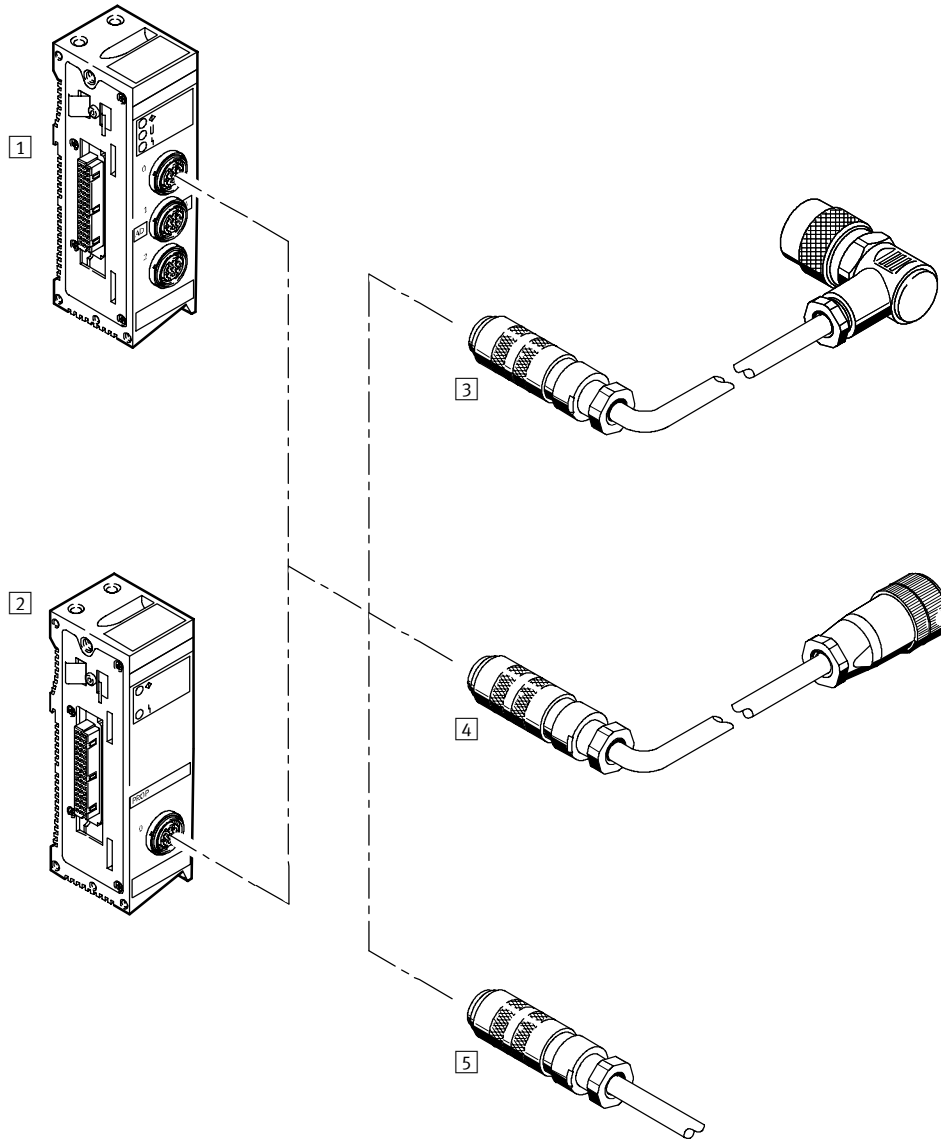
Accessories			
	Brief description	→ Page	
1	VIGE-03-FB-16-SUBD-S	Input module, 16-fold, for valve terminal type 03/04	4 / 4.8-148
2	SD-SUB-D-ST15	Plug for Sub-D connections	4 / 5.1-144
3	KMPV-SUB-D-15-...	Connecting cable for multi-pin plug distributor	4 / 5.1-70
4	MPV-E/A08-M12	Multi-pin plug distributor	4 / 4.8-170
5	MPV-E/A...-M8	Multi-pin plug distributor	4 / 4.8-170

# Electrical connection technology, for inputs and outputs

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VIAU-03-FB-...

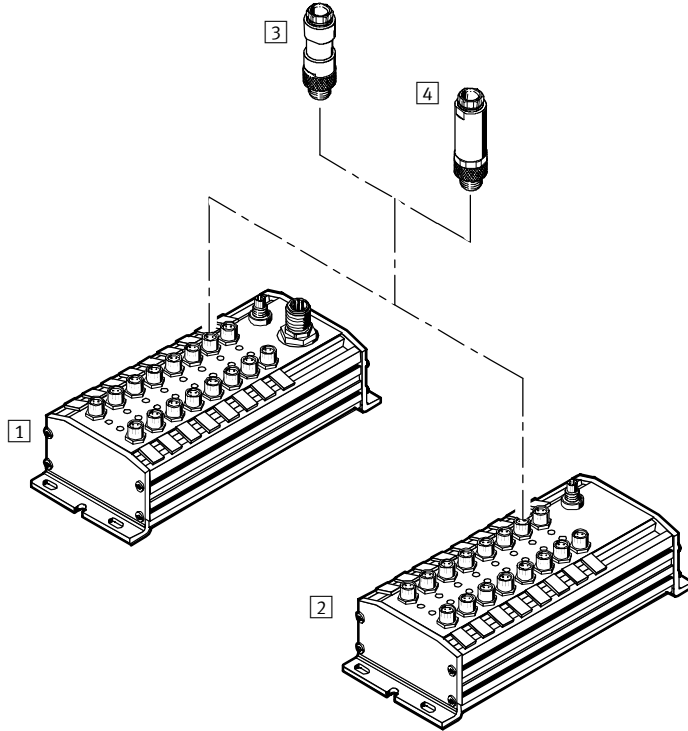


Accessories		
	Brief description	→ Page
1	VIAU-03-FB-...	Analogue module for electrical peripherals, valve terminal type 03/04
2	VIAP-03-FB-...	Analogue module for electrical peripherals, valve terminal type 03/04
3	KVIA-MPYE-...	Connecting cable for proportional valves
4	KVIA-MPPE-...	Connecting cable for proportional pressure regulator
5	KVIA-...	Connecting cable for analogue units

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## CP installation system CP-E...



Accessories		
	Brief description	→ Page
1	CP-E16-M8-Z Input module M8, 3-pin, with additional power supply	4 / 4.6-46
2	CP-E16-M8 CP-E16N-M8 Input module M8, PNP/NPN	4 / 4.6-46
3	SEA-GS-M8-... Plug for inputs and outputs	4 / 5.1-146
4	SEA-3GS-M8-S-... Plug for inputs and outputs	4 / 5.1-146

# Electrical connection technology, for inputs and outputs

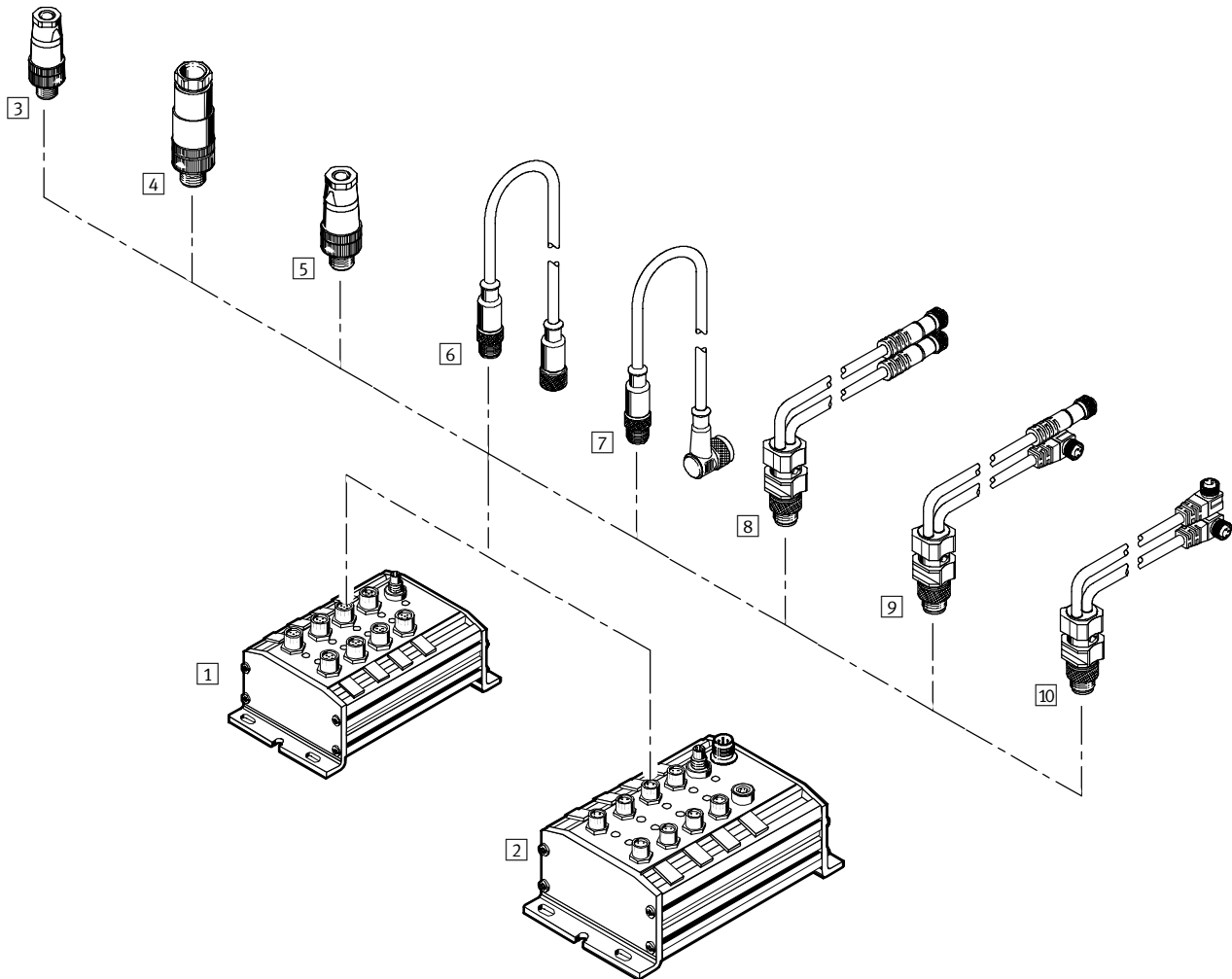
Peripherals overview

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## CP installation system CP-E...



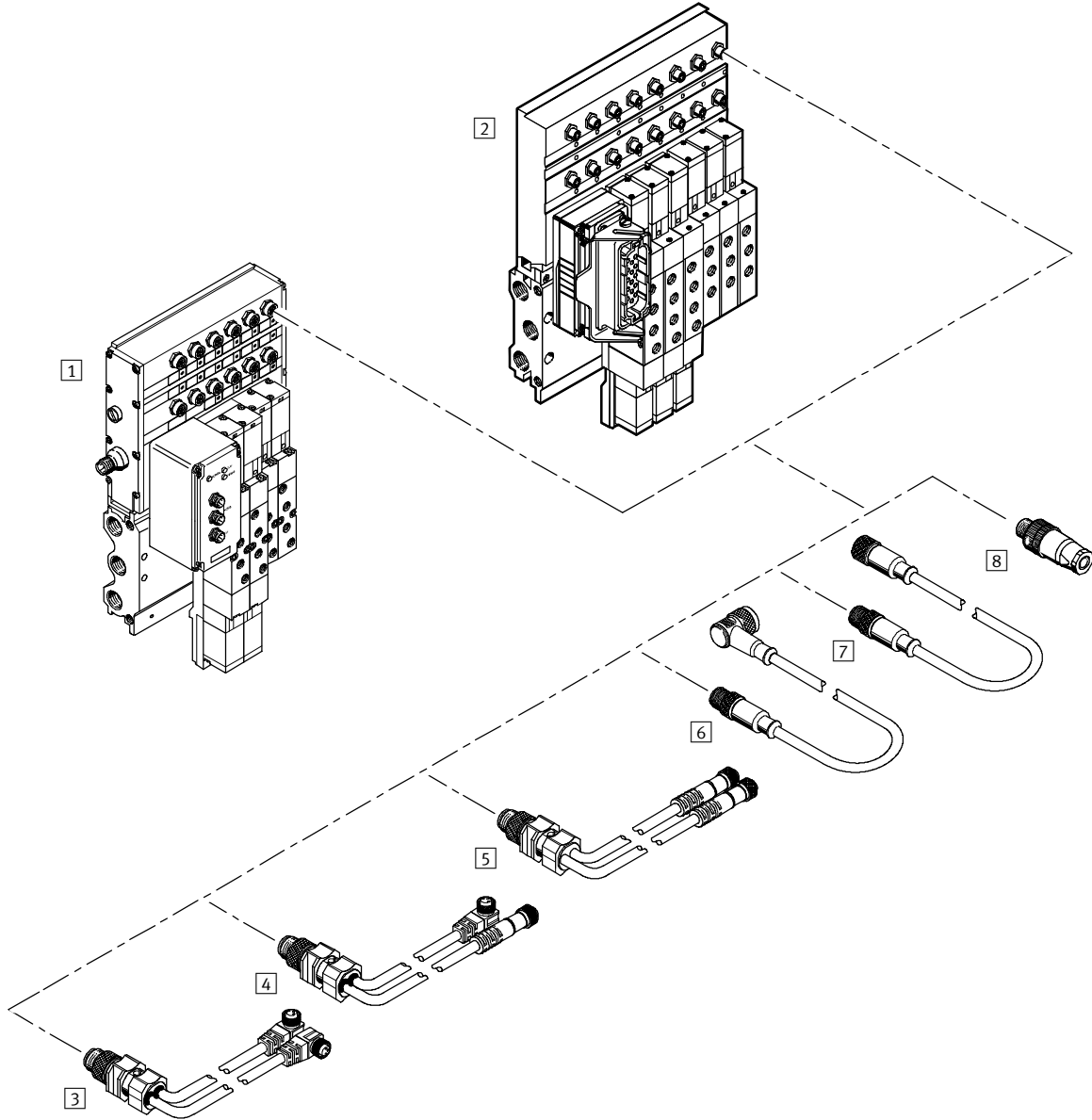
Accessories		
	Brief description	→ Page
1	CP-E16-M12x2-5POL CP-E16N-M12x2	Input module with 16 inputs 4 / 4.6-46
2	CP-A08N-M12	Output module 4 / 4.6-54
3	SEA-GS-...	Plug for inputs and outputs, straight socket 4 / 5.1-148
4	SEA-4GS-7-2,5... SEA-5GS-11-DUO	Plug for inputs and outputs, straight socket, for cable 2.5 square mm Plug for inputs and outputs, straight socket, for 2 cables 4 / 5.1-150
5	SEA-M12-5GS-PG7	Plug for inputs and outputs, 5-pin 4 / 5.1-152
6	KM12-M12-GSGD-...	Extension cable, straight sockets 4 / 5.1-24
7	KM12-M12-GSWD-1-4	Extension cable, straight socket/angled socket 4 / 5.1-24
8	KM12-DUO-M8-GDGD	DUO cable, straight sockets 4 / 5.1-140
9	KM12-DUO-M8-GDWD	DUO cable, straight socket/angled socket 4 / 5.1-140
10	KM12-DUO-M8-WDWD	DUO cable, angled sockets 4 / 5.1-140

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## Valve/sensor terminal type 02, Tiger 2000



Accessories		Brief description	→ Page
1	IIFB-02-...	Valve/sensor terminal type 02, fieldbus, Tiger 2000	4 / 2.3-1
2	IIMP-02-...	Valve/sensor terminal type 02, multiple connector plate, Tiger 2000	4 / 2.3-1
3	KM12-DUO-M8-WDWD	DUO cable, angled sockets	4 / 5.1-140
4	KM12-DUO-M8-GDWD	DUO cable, straight socket/angled socket	4 / 5.1-140
5	KM12-DUO-M8-GDGD	DUO cable, straight sockets	4 / 5.1-140
6	KM12-M12-GSWD-1-4	Extension cable, straight socket/angled socket	4 / 5.1-24
7	KM12-M12-GSGD-...	Extension cable, straight sockets	4 / 5.1-24
8	SEA-GS-7	Plug for inputs and outputs, M12, straight socket	4 / 5.1-148
	SEA-4GS-7-2,5	Plug for inputs and outputs, M12, straight socket	4 / 5.1-150

# Electrical connection technology, for inputs/outputs

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Overview of connections for input/output modules for CPV/CPA					
Plug/cable Type	Input/output module type				→ Page
	CP-E16-M8	CP-E16-KL-IP20-Z	CP-E16-M12 x 2-5POL	CP-E16N-M8	
SEA-GS-M8	■	-	■	■	4 / 5.1-146
SEA-3GS-M8-S	■	-	■	■	4 / 5.1-146
SEA-GS-7	-	-	■	-	4 / 5.1-148
SEA-GS-9	-	-	■	-	4 / 5.1-148
SEA-4GS-7-2,5	-	-	■	-	4 / 5.1-150
SEA-GS-11-DUO	-	-	■	-	4 / 5.1-148
SEA-5GS-11-DUO	-	-	■	-	4 / 5.1-150
SEA-M12-5GS-PG7	-	-	■	-	4 / 5.1-152
SEA-KL-SAC10/30	-	■	-	-	4 / 5.1-142
PS1-ZC13-Z	-	■	-	-	4 / 5.1-142
PS1-ZC13-S	-	■	-	-	4 / 5.1-142
KM8-M8-GSGD-1	■	-	-	■	4 / 5.1-136
KM8-M8-GSGD-2,5	■	-	-	■	4 / 5.1-136
KM8-M8-GSGD-	■	-	-	■	4 / 5.1-136
KM12-M12-GSGD-2,5	-	-	■	-	4 / 5.1-24
KM12-M12-GSGD-5	-	-	■	-	4 / 5.1-24
KM-12-DUO-M8-GDGD	-	-	■	-	4 / 5.1-140
KM-12-DUO-M8-GDWD	-	-	■	-	4 / 5.1-140
KM-12-DUO-M8-WDWD	-	-	■	-	4 / 5.1-140

Overview of connections for input/output modules for CPV/CPA					
Plug/cable Type	Input/output module type				→ Page
	CP-E16N-M12 x 2	CP-E16-M8-Z	CP-A08-M12-5POL	CP-A08N-M12	
SEA-GS-M8	-	■	-	-	4 / 5.1-146
SEA-3GS-M8-S	-	■	-	-	4 / 5.1-146
SEA-GS-7	■	-	■	■	4 / 5.1-148
SEA-GS-9	■	-	■	■	4 / 5.1-148
SEA-4GS-7-2,5	■	-	■	■	4 / 5.1-150
SEA-GS-11-DUO	■	-	■	■	4 / 5.1-148
SEA-5GS-11-DUO	■	-	■	■	4 / 5.1-150
SEA-M12-5GS-PG7	■	-	-	-	4 / 5.1-152
KM8-M8-GSGD-1	-	■	-	-	4 / 5.1-136
KM8-M8-GSGD-2,5	-	■	-	-	4 / 5.1-136
KM8-M8-GSGD-	-	■	-	-	4 / 5.1-136
KM12-M12-GSGD-2,5	■	-	■	■	4 / 5.1-24
KM12-M12-GSGD-5	■	-	■	■	4 / 5.1-24
KM-12-DUO-M8-GDGD	■	-	■	■	4 / 5.1-140
KM-12-DUO-M8-GDWD	■	-	■	■	4 / 5.1-140
KM-12-DUO-M8-WDWD	■	-	■	■	4 / 5.1-140

Accessories for valve terminals  
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Overview of connections for inputs/outputs, CPX terminal type 50				
Plug/cable Type	Manifold sub-base			→ Page
	CPX-AB-M12 x 2-5POL	CPX-AB-M8-3POL	CPX-AB-1-SUB-BU-25POL	
SEA-GS-M8	-	■	-	4 / 5.1-146
SEA-3GS-M8-5	-	■	-	4 / 5.1-146
SEA-GS-7	■	-	-	4 / 5.1-148
SEA-GS-9	■	-	-	4 / 5.1-148
SEA-4GS-7-2,5	■	-	-	4 / 5.1-150
SEA-GS-11-DUO	■	-	-	4 / 5.1-148
SEA-5GS-11-DUO	■	-	-	4 / 5.1-150
SEA-M12-5GS-PG7	■	-	-	4 / 5.1-152
SEA-GS-HAR-4POL	-	-	-	4 / 5.1-154
SD-SUB-D-ST-25	-	-	■	4 / 5.1-144
KM8-M8-GSGD-1	-	■	-	4 / 5.1-136
KM8-M8-GSGD-2,5	-	■	-	4 / 5.1-136
KM8-M8-GSGD-5	-	■	-	4 / 5.1-136
KM8-M12-GSGD-1	■	-	-	4 / 5.1-136
KM8-M12-GSGD-2,5	■	-	-	4 / 5.1-136
KM8-M12-GSGD-5	■	-	-	4 / 5.1-136
KM12-M12-GSGD-2,5	■	-	-	4 / 5.1-24
KM12-M12-GSGD-5	■	-	-	4 / 5.1-24
KM12-M12-GSWD-1-4	■	-	-	4 / 5.1-24
KM12-DUO-M8-GDGD	■	-	-	4 / 5.1-140
KM12-DUO-M8-GDWD	■	-	-	4 / 5.1-140
KM12-DUO-M8-WDWD	■	-	-	4 / 5.1-140

Overview of connections for inputs/outputs, CPX terminal type 50				
Plug/cable Type	Manifold sub-base			→ Page
	CPX-AB-4-HAR-4POL	CPX-AB-4-M12-8POL		
SEA-GS-HAR-4POL	■	-		4 / 5.1-154
KM12-8GD8GS-2-PU	-	■		4 / 5.1-138

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Overview of connections for inputs/outputs, valve terminal type 03/04					
Plug/connecting cable Type	Input/output module type				➔ Page
	VIGE-03-MP-...	VIGE-03-FB-...-5POL	VIGE-03-FB-16-SUB-D-S	VIGE-03-FB-...-N	
SEA-GS-7	■	■	-	■	4 / 5.1-148
SEA-GS-9	■	■	-	■	4 / 5.1-148
SEA-4GS-7-2,5	■	■	-	■	4 / 5.1-150
SEA-GS-11-DUO	■	■	-	■	4 / 5.1-148
SEA-5GS-11-DUO	-	■	-	-	4 / 5.1-150
SEA-M12-5GS-PG7	-	■	-	-	4 / 5.1-152
KM12-M12-GSGD-2,5	■	■	-	■	4 / 5.1-24
KM12-M12-GSGD-5	■	■	-	■	4 / 5.1-24
KM12-M12-GSWD-1-4	■	■	-	■	4 / 5.1-24
KM-12-DUO-M8-GDGD	■	-	-	■	4 / 5.1-140
KM-12-DUO-M8-GDWD	■	-	-	■	4 / 5.1-140
KM-12-DUO-M8-WDWD	■	-	-	■	4 / 5.1-140
SD-SUB-D-ST-15	-	-	■	-	4 / 5.1-144

Overview of connections for inputs/outputs, valve terminal type 03/04					
Plug/connecting cable Type	Input/output module type				➔ Page
	VIEA-03-FB-12E-8A-...	VIGA-03-FB-4-5POL	VIGA-03-FB-4-PH/NH	VIAP/VIAU-03-FB-...	
SEA-GS-7	-	■	■	-	4 / 5.1-148
SEA-GS-9	-	■	■	-	4 / 5.1-148
SEA-4GS-7-2,5	-	■	■	-	4 / 5.1-150
SEA-GS-11-DUO	-	■	■	-	4 / 5.1-148
SEA-5GS-11-DUO	-	■	-	-	4 / 5.1-150
SEA-M12-5GS-PG7	-	■	-	-	4 / 5.1-152
KM12-M12-GSGD-2,5	-	■	■	-	4 / 5.1-24
KM12-M12-GSGD-5	-	■	■	-	4 / 5.1-24
KM12-M12-GSWD-1-4	-	■	■	-	4 / 5.1-24
KM-12-DUO-M8-GDGD	-	-	-	-	4 / 5.1-140
KM-12-DUO-M8-GDWD	-	-	-	-	4 / 5.1-140
KM-12-DUO-M8-WDWD	-	-	-	-	4 / 5.1-140
KEA-1-25-P-5	■	-	-	-	4 / 5.1-68
KEA-1-25-P-10	■	-	-	-	4 / 5.1-68
KEA-1-25-P-X	■	-	-	-	4 / 5.1-68
SD-SUB-BU25	■	-	-	-	4 / 5.1-72
KVIA-5	-	-	-	■	4 / 5.1-133
KVIA-10	-	-	-	■	4 / 5.1-133
KVIA-MPYE-5	-	-	-	■	4 / 5.1-133
KVIA-MPYE-10	-	-	-	■	4 / 5.1-133
KVIA-MPPE-5	-	-	-	■	4 / 5.1-133
KVIA-MPPE-10	-	-	-	■	4 / 5.1-133

Accessories for valve terminals  
Electrical connector systems

5.1

# Electrical connection technology, for inputs/outputs

Peripherals overview

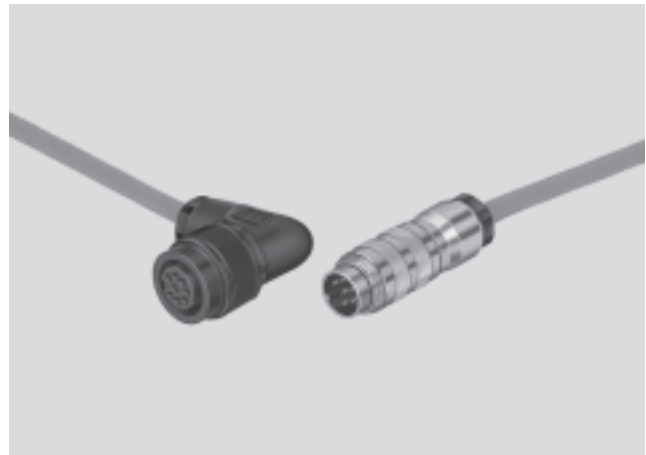
Overview of connections for inputs/outputs, valve/sensor terminal type 02			
Plug/cable Type	IIMP-02-...	IIFB-02-...	→ Page
SEA-GS-7	■	■	4 / 5.1-148
SEA-GS-9	■	■	4 / 5.1-148
KM12-M12-GSGD-2,5	■	■	4 / 5.1-24
KM12-M12-GSGD-5	■	■	4 / 5.1-24
KM-12-DUO-M8-GDGD	■	■	4 / 5.1-140
KM-12-DUO-M8-GDWD	■	■	4 / 5.1-140
KM-12-DUO-M8-WDWD	■	■	4 / 5.1-140

# Electrical connection technology, for inputs/outputs

Technical data – KVIA-...



- Plug socket with cable for inputs/ outputs (valve terminal type 03/04, analogue connections)
- Pre-assembled at both ends
- Cable lengths 5 m or 10 m
- 4-pin/5-pin
- Round plug
- Suitable for chain link trunking



General technical data		
Type		KVIA-...
Type of mounting		M16/M12 union nut
Mounting position		Any
Operating voltage range	[V]	250 AC
Current-carrying capacity	[A]	1
Protection class to EN 60 529		IP65 (assembled)
Material of housing		Polybuteneterephthalate
Material of contacts		Silver-plated/gold-plated bronze
Material of cable sheath		Polyvinyl chloride
Ambient temperature	[°C]	-30 ... +80

Ordering data								
	Suitable for chain link trunking	Electrical connection	Constructional design [mm <sup>2</sup> ]	Cable diameter [mm]	Product weight [g]	Cable length [m]	Type	Part No.
	■	Straight plug	6x0.25	8	306	5	<b>KVIA-5</b>	<b>163 960</b>
	■	Straight plug	6x0.25	8	567	10	<b>KVIA-10</b>	<b>163 961</b>
	■	Straight plug Straight socket	4x0.25	6.2	297	5	<b>KVIA-MPYE-5</b>	<b>161 984</b>
	■	Straight plug Straight socket	4x0.25	6.2	530	10	<b>KVIA-MPYE-10</b>	<b>161 985</b>
	■	Straight plug Angled socket	6x0.25	8	352	5	<b>KVIA-MPPE-5</b>	<b>163 882</b>
	■	Straight plug Angled socket	6x0.25	8	828	10	<b>KVIA-MPPE-10</b>	<b>163 883</b>

# Electrical connection technology, for inputs/outputs

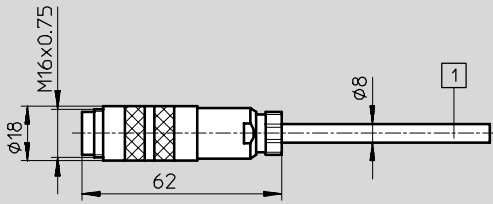
Technical data – KVIA-...



## Dimensions

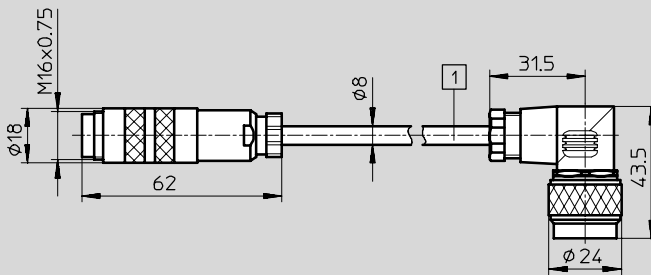
Download CAD data → [www.festo.com/en/engineering](http://www.festo.com/en/engineering)

KVIA-5 and KVIA-10



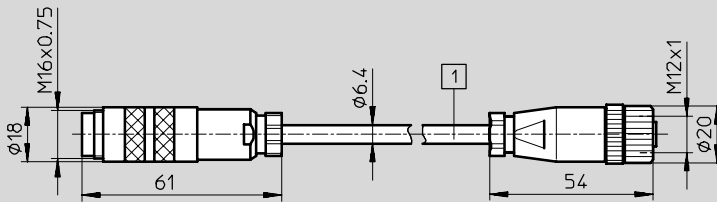
1 Cable length 5 m or 10 m

Type KVIA-MPPE-...



1 Cable length 5 m or 10 m

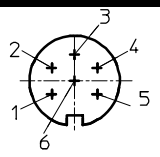
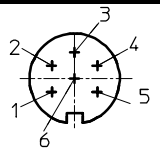
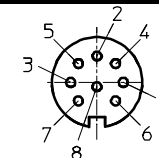
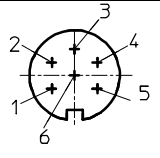
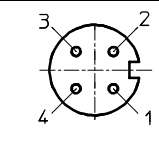
Type KVIA-MPYE-...



1 Cable length 5 m or 10 m

# Electrical connection technology, for inputs/outputs

Technical data – KVIA-...

Wiring allocation (socket/plug view)				
KVIA-5 and KVIA-10				
Plug	Pin	Core colour		
	1	Grey		
	2	Pink		
	3	Green		
	4	Yellow		
	5	Brown		
	6	White		
	Housing		Screen	
Type KVIA-MPPE-...				
Plug	Pin	Core colour	Pin	Socket
	1	Grey	6	
	2	Pink	8	
	3	Green	4	
	4	Yellow	2	
	5	Brown	7	
	6	White	3	
	Housing		Screen	
Type KVIA-MPYE-...				
Plug	Pin	Core colour	Pin	Socket
	1	-	-	
	2	-	-	
	3	Green	3	
	4	Yellow	4	
	5	Brown	1	
	6	White	2	
	Housing		Screen	

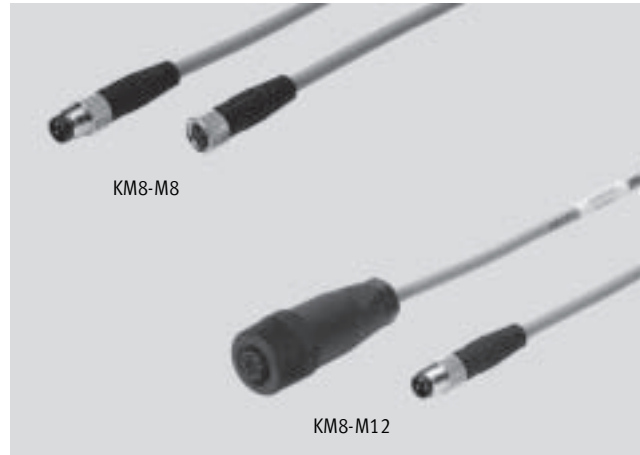
# Electrical connection technology, for inputs/outputs

Technical data – KM8



## 5.1

- Plug socket with cable for connecting inputs/outputs
- Pre-assembled at both ends
- Cable lengths 1 m, 2.5 m or 5 m
- Socket/plug, 3-pin or 4-pin



General technical data		KM8-...
Type		KM8-...
Type of mounting		Union nut/threaded connector
Mounting position		Any
Operating voltage range	[V]	60 AC
	[V]	75 DC
Current-carrying capacity	[A]	4
Protection class to EN 60 529		IP65 (assembled)
Material of housing		Polyurethane
Material of contacts		Nickel-plated/gold-plated bronze
Material of union nut		Nickel-plated brass
Material of cable sheath		Polyurethane
Ambient temperature	[°C]	-25 ... +85
Ambient temperature of flexible cable installation	[°C]	+20 ... +80

Ordering data							
	Electrical connection	Construc- tional design [mm <sup>2</sup> ]	Cable diameter [mm]	Product weight [g]	Cable length [m]	Type	Part No.
	Straight plug, 3-pin, M8 Straight socket, 3-pin, M8	3x0.25	4.5	40	1	<b>KM8-M8-GSGD-1</b>	<b>175 489</b>
	Straight plug, 3-pin, M8 Straight socket, 3-pin, M8	3x0.25	4.5	78.8	2.5	<b>KM8-M8-GSGD-2,5</b>	<b>165 610</b>
	Straight plug, 3-pin, M8 Straight socket, 3-pin, M8	3x0.25	4.5	140	5	<b>KM8-M8-GSGD-5</b>	<b>165 611</b>
	Straight plug, 3-pin, M8 Straight socket, 3-pin, M12	3x0.25	4.5	49	1	<b>KM8-M12-GSGD-1</b>	<b>187 859</b>
	Straight plug, 3-pin, M8 Straight socket, 3-pin, M12	3x0.25	4.5	87	2.5	<b>KM8-M12-GSGD-2,5</b>	<b>187 860</b>
	Straight plug, 3-pin, M8 Straight socket, 3-pin, M12	3x0.25	4.5	150	5	<b>KM8-M12-GSGD-5</b>	<b>187 861</b>

# Electrical connection technology, for inputs/outputs

Technical data – KM8

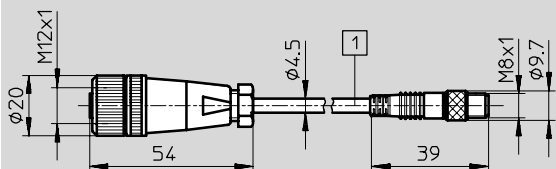
**Dimensions** Download CAD data → [www.festo.com/en/engineering](http://www.festo.com/en/engineering)

**KM8-M8-...**



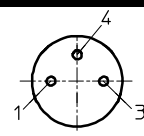
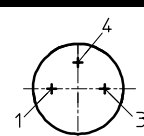
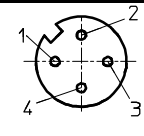
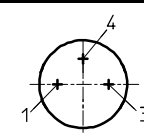
L1 Length according to type (2.5 m or 5 m)

**KM8-M12-...**



L1 Length according to type (2.5 m or 5 m)

**Wiring allocation (socket/plug view)**

KM8-M8-...				
Socket	Pin	Core colour	Pin	Plug
	1	Brown	1	
	2	Blue	2	
	3	Black	3	
KM8-M12-...				
Socket	Pin	Core colour	Pin	Plug
	1	Brown	1	
	2	Blue	2	
	3	Black	3	
	4	Blue	2	



# Electrical connection technology, for inputs/outputs

Technical data – KM12-8GD8GS

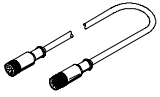


5.1

- Plug socket with cable for connecting inputs/outputs (e.g. DNCV)
- Pre-assembled at both ends
- Cable length 2 m
- Socket/plug, 8-pin
- Not suitable for chain link trunking



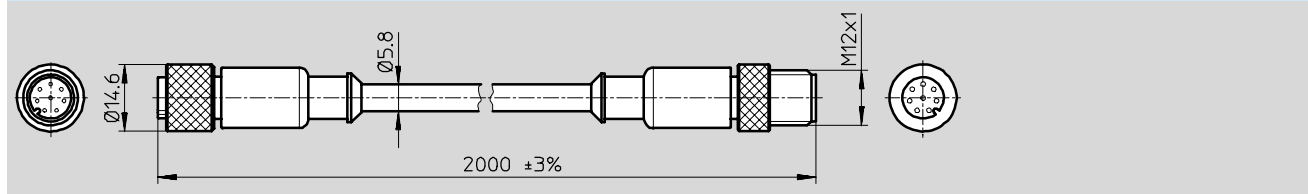
General technical data		
Type	KM12-8GD8GS	
Type of mounting	Union nut/threaded connector	
Mounting position	Any	
Operating voltage range	[V]	30 AC
	[V]	36 DC
Current-carrying capacity	[A]	1.5
Protection class to EN 60 529		IP68 (assembled)
Material of contacts		Nickel-plated/gold-plated bronze
Material of union nut		Nickel-plated brass
Material of cable sheath		Polyurethane
Ambient temperature	[°C]	-25 ... +80

Ordering data							
	Electrical connection	Construc- tional design [mm <sup>2</sup> ]	Cable diameter [mm]	Product weight [g]	Cable length [m]	Type	Part No.
	Straight plug, 8-pin, M12 Straight socket, 8-pin, M12	8x0.25	5.8	156	2	<b>KM12-8GD8GS-2-PU</b>	<b>525 617</b>

# Electrical connection technology, for inputs/outputs

Technical data – KM12-8GD8GS

**Dimensions** Download CAD data → [www.festo.com/en/engineering](http://www.festo.com/en/engineering)  
 KM12-8GD8GS



**Wiring allocation (socket/plug view)**

KM12-8GD8GS

Socket	Pin	Core colour	Pin	Plug
	1	White	1	
	2	Brown	2	
	3	Green	3	
	4	Yellow	4	
	5	Grey	5	
	6	Pink	6	
	7	Blue	7	
	8	Red	8	
	Housing	Screen	Housing	

## Electrical connection technology, for inputs/outputs

Technical data – KM12-DUO

- Plug socket with cable for connecting 2 sensors to an input socket with double allocation
- Pre-assembled at both ends
- Cable length 0.6 m
- Plug, 4-pin, socket, 3-pin



General technical data		KM12-DUO-...
Type		
Type of mounting		Union nut/threaded connector, threaded connector with mounting option via cable binder or screw M4
Mounting position		Any
Operating voltage range	[V]	60 AC
	[V]	75 DC
Current-carrying capacity	[A]	2.8
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	Construc- tional design [mm <sup>2</sup> ]	Cable diameter [mm]	Product weight [g]	Cable length [m]	Type	Part No.
	Straight plug, 4-pin, M12 2x straight socket, 3-pin, M8	2x3x0.25	4.5	59	0.6	<b>KM12-DUO-M8-GDGD</b>	<b>18 685</b>
	Straight plug, 4-pin, M12 Straight socket, 3-pin, M8 Angled socket, 3-pin, M8	2x3x0.25	4.5	61	0.6	<b>KM12-DUO-M8-GDWD</b>	<b>18 688</b>
	Straight plug, 4-pin, M12 2x angled socket, 3-pin, M8	2x3x0.25	4.5	60	0.6	<b>KM12-DUO-M8-WDWD</b>	<b>18 687</b>

# Electrical connection technology, for inputs/outputs

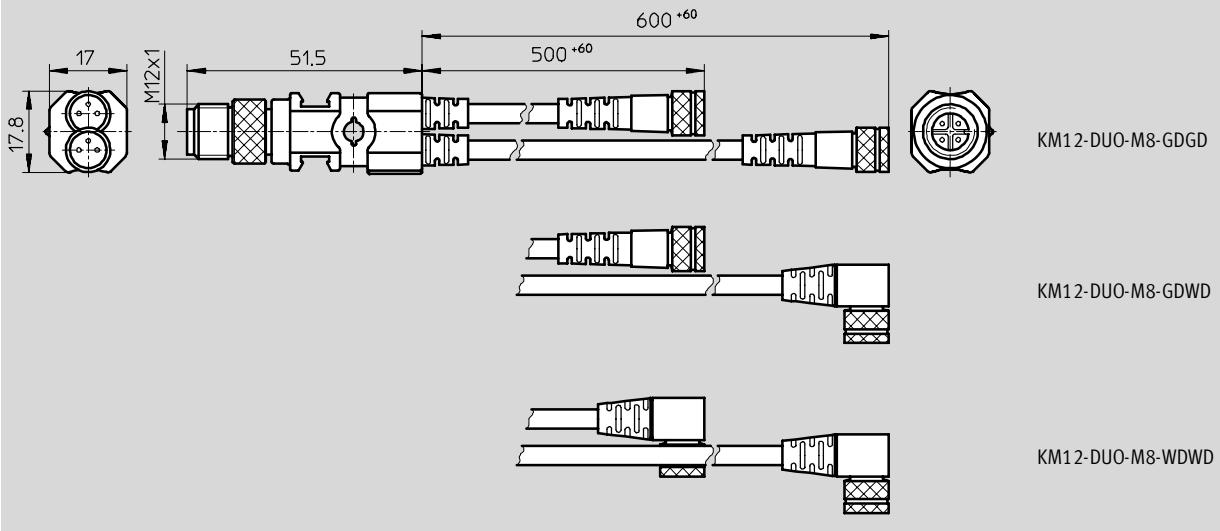
Technical data – KM12-DUO



## Dimensions

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

KM12-DUO-...

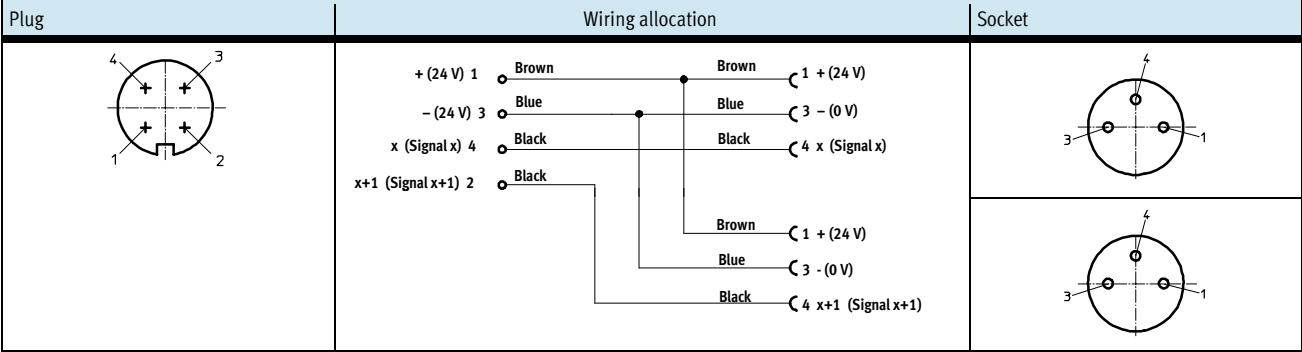


Accessories for valve terminals  
Electrical connector systems

5.1

## Wiring allocation (plug/socket view)

KM12-DUO-...

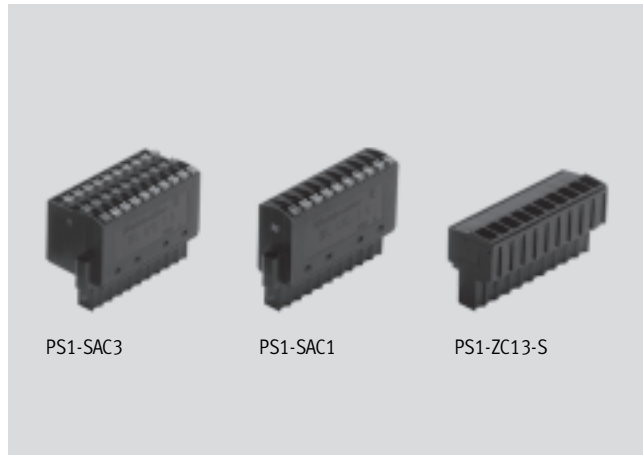


# Electrical connection technology, for inputs/outputs

Technical data – PS1-...



- Plug for inputs/outputs, 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	
Type	PS1-SAC-.../SEA-KL-...
Type of mounting	2 M2x7 screws
Max. wire cross section [mm <sup>2</sup> ]	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	<b>PS1-SAC10-10POL</b>	<b>197 159</b>
	Socket, 10-pin, terminal strip, 10-pin	4	40	<b>PS1-SAC11-10POL+LED</b>	<b>197 160</b>
	Socket, 10-pin, terminal strip, 30-pin	0.5	25	<b>PS1-SAC30-30POL</b>	<b>197 161</b>
	Socket, 10-pin, terminal strip, 30-pin	0.5	25	<b>PS1-SAC31-30POL+LED</b>	<b>197 162</b>
	Socket, 10-pin, terminal strip, 10/30-pin	0.5/4	71	<b>SEA-KL-SAC10/30</b>	<b>526 256</b>
	Screw terminal socket, 10-pin	4	37	<b>PS1-ZC13-10POL-SCHRAUBKL</b>	<b>160 800</b>

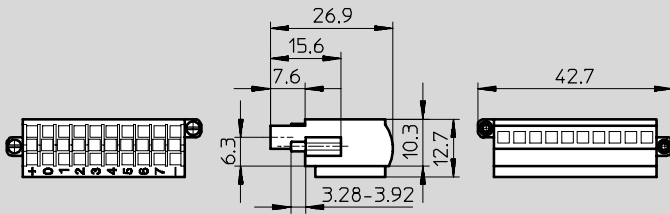
# Electrical connection technology, for inputs/outputs

Technical data – PS1-...

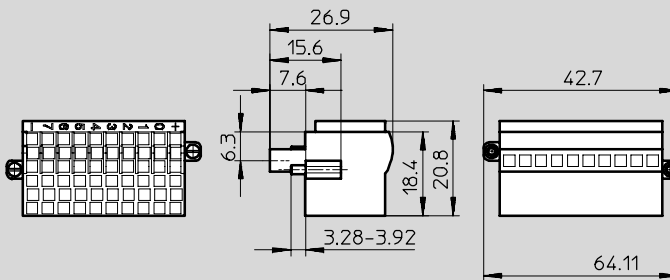
## Dimensions

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

PS1-SAC10-10POL



PS1-SAC30-30POL

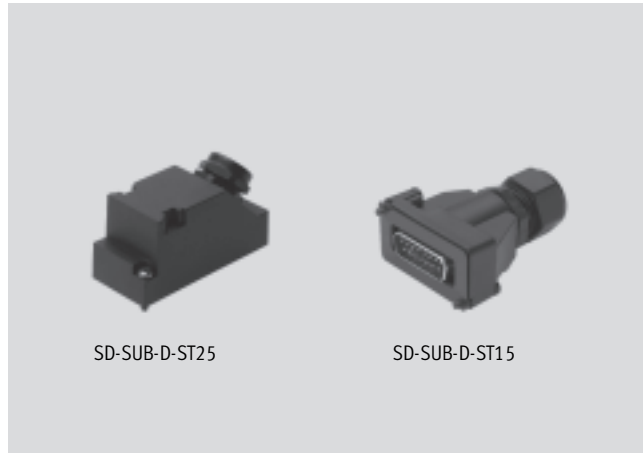


# Electrical connection technology, for inputs/outputs

Technical data – SD-SUB-D-ST...



- Plug for inputs/outputs
- Can be fabricated with any cable lengths
- 15-pin or 25-pin
- Sub-D



## 5.1

General technical data		SD-SUB-D-ST...
Type		SD-SUB-D-ST...
Type of mounting		2 M3x16 screws
Mounting position		Any
Operating voltage range	[V]	250 AC
	[V]	250 DC
Current-carrying capacity	[A]	5
Protection class to EN 60 529		IP65 (assembled)
Material of contacts		Gold-plated copper base alloy
Ambient temperature	[°C]	-20 ... +80

Ordering data								
	Electrical connection	Cable gland fitting	Perm. cable diameter [mm]	Material of housing	Material of seal	Product weight [g]	Type	Part No.
	Plug, 15-pin, Sub-D	PG9	6 ... 9	Polyamide (PA66-GF25)	Polychloroprene rubber (Neoprene)	37	<b>SD-SUB-D-ST15</b>	<b>192 768</b>
	Plug, 25-pin, Sub-D	PG11	7 ... 12	Polyamide (Schulamid, 6GB30)	Nitrile rubber (NBR)	51	<b>SD-SUB-D-ST25</b>	<b>527 522</b>

# Electrical connection technology, for inputs/outputs

Technical data – SD-SUB-D-ST-...

**Dimensions** Download CAD data → [www.festo.com/en/engineering](http://www.festo.com/en/engineering)

SD-SUB-D-ST-15

- 1 Sub-D plug, 15-pin
- 2 Cable gland fitting PG9

**Dimensions** Download CAD data → [www.festo.com/en/engineering](http://www.festo.com/en/engineering)

SD-SUB-D-ST-25

Type	1	B1	B2	H1	H2	H3	L1	L2
SD-SUB-D-ST25	Sub-D plug, 25-pin	30	23	47	37	35	70	63



# Electrical connection technology, for inputs/outputs

Technical data – SEA-GS-M8



5.1

- Sensor plug/socket for inputs/ outputs
- Can be fabricated with any cable lengths
- 3-pin
- With screw terminals or soldered connection
- Wire cross section of up to 0.5 mm<sup>2</sup>



General technical data		SEA-GS-M8
Type		SEA-GS-M8
Type of mounting		Threaded connector M8
Mounting position		Any
Operating voltage range	[V]	75 DC
Current-carrying capacity	[A]	4
Cable gland fitting		Pg7
Material of housing		Polyamide
Material of contacts		Gold-plated brass
Material of union nut		Nickel-plated/chrome-plated brass
Ambient temperature	[°C]	-40 ... +85

Ordering data								
	Electrical connection	Operating voltage range AC [V]	Perm. cable diameter [mm]	Max. wire cross section [mm <sup>2</sup> ]	Protection class to EN 60 529	Product weight [g]	Type	Part No.
	Straight plug, 3-pin, screw terminal	48	2.5 ... 5	0.14 ... 0.5	IP65 (assembled)	11	<b>SEA-3GS-M8-S</b>	<b>192 009</b>
	Straight plug, 3-pin, solder lug	60	3.5 ... 5	0.25	IP67 (assembled)	9	<b>SEA-GS-M8</b>	<b>18 696</b>

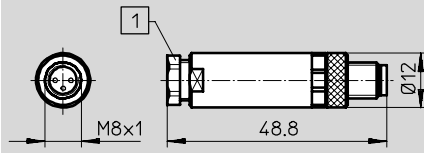
# Electrical connection technology, for inputs/outputs

Technical data – SEA-GS-M8

## Dimensions

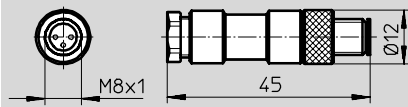
Download CAD data → [www.festo.com/en/engineering](http://www.festo.com/en/engineering)

SEA-3GS-M8-S



- 1 Cable gland fitting:
- Black for cable 3.5 ... 5 mm
  - Blue for cable 2.5 ... 4 mm

SEA-GS-M8



# Electrical connection technology, for inputs/outputs

Technical data – SEA-GS

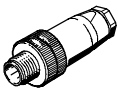
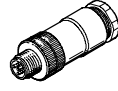


- Sensor plug/socket for inputs/ outputs
- Can be fabricated with any cable lengths
- 4-pin
- Wire cross section of up to 0.75 mm<sup>2</sup>



## 5.1

General technical data		
Type	SEA-GS-...	
Electrical connection	Straight plug, 4-pin, screw terminal	
Type of mounting	Threaded connector M12	
Mounting position	Any	
Current-carrying capacity	[A]	3
Max. wire cross section	[mm <sup>2</sup> ]	0.75
Protection class to EN 60 529	IP67 (assembled)	
Material of housing	Polybuteneterephthalate	
Material of contacts	Copper base alloy	
Material of union nut	Polybuteneterephthalate	
Ambient temperature	[°C]	-40 ... +85

	Operating voltage range		Cable gland fitting	Perm. cable diameter	Product weight	Type	Part No.
	[V]	[V]					
	250 AC	300 DC	Pg7	4 ... 6	17	SEA-GS-7	18 666
	125 AC	150 DC	Pg9	6 ... 8	18	SEA-GS-9	18 778
	125 AC	150 DC	Pg11	3 ... 5	24	SEA-GS-11-DUO	18 779

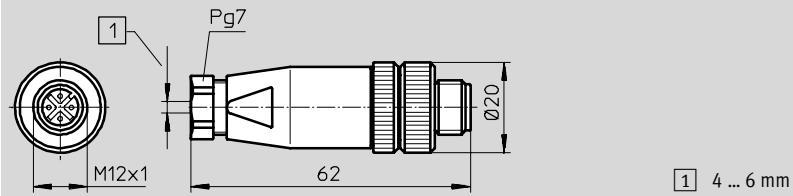
# Electrical connection technology, for inputs/outputs

Technical data – SEA-GS

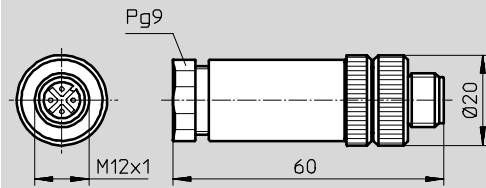
## Dimensions

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

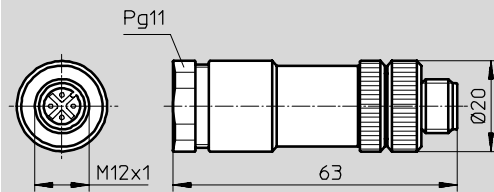
SEA-GS-7



SEA-GS-9



SEA-GS-11-DUO



# Electrical connection technology, for inputs/outputs

Technical data – SEA-...GS

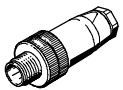
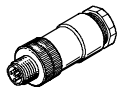


5.1

- Sensor plug/socket for inputs/ outputs
- Can be fabricated with any cable lengths
- 4-pin or 5-pin
- Wire cross section of up to 0.5 mm<sup>2</sup>



General technical data	
Type	SEA-...GS-...
Type of mounting	Threaded connector M12
Mounting position	Any
Perm. cable diameter [mm]	2.5 ... 2.9
Max. wire cross section [mm <sup>2</sup> ]	0.14 ... 0.5
Protection class to EN 60 529	IP65 (assembled)
Material of housing	Polyamide
Material of contacts	Copper base alloy
Material of union nut	Polyamide
Ambient temperature [°C]	-40 ... +85

Ordering data								
	Electrical connection	Operating voltage range		Current-carrying capacity [A]	Cable gland fitting	Product weight [g]	Type	Part No.
		[V]	[V]					
	Straight plug, 4-pin, screw terminal	48 AC	75 DC	4	Pg7	18	SEA-4GS-7-2,5	192 008
	Straight plug, 5-pin, screw terminal	30 AC	36 DC	3	Pg11	24	SEA-5GS-11-DUO	192 010

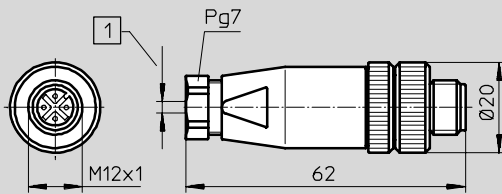
# Electrical connection technology, for inputs/outputs

Technical data – SEA-...GS

## Dimensions

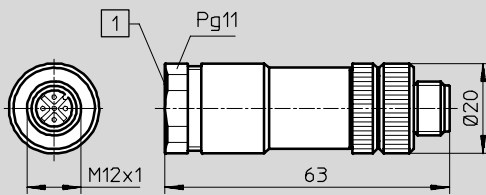
Download CAD data → [www.festo.com/en/engineering](http://www.festo.com/en/engineering)

SEA-4GS-7-2,5



1 2.5 ... 2.9 mm

SEA-5GS-11-DUO



- 1 Included in the scope of delivery:
- 1 seal insert for 2 cables with a dia. of 2.5 ... 2.9 mm
  - 1 seal insert for 2 cables with a dia. of 5 mm
  - 1 cable binder

# Electrical connection technology, for inputs/outputs

Technical data – SEA-M12



## 5.1

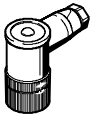
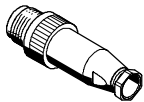
- Sensor plug/socket for inputs/ outputs
- Can be fabricated with any cable lengths
- 4-pin or 5-pin
- Wire cross section of up to 0.75 mm<sup>2</sup>



SEA-M12-4WD-PG7

SEA-M12-5GS-PG7

General technical data	
Type	SEA-M12-...
Mounting position	Any
Cable gland fitting	Pg7
Perm. cable diameter [mm]	4 ... 6
Max. wire cross section [mm <sup>2</sup> ]	0.75
Protection class to EN 60 529	IP67 (assembled)
Material of housing	Polybuteneterephthalate
Material of contacts	Copper base alloy
Material of union nut	Nickel-plated/chrome-plated brass
Ambient temperature [°C]	-40 ... +85

Ordering data								
	Electrical connection	Type of mounting	Operating voltage range		Current-carrying capacity [A]	Product weight [g]	Type	Part No.
			[V]	[V]				
	Socket, angled, 4-pin, screw terminal	M12 union nut	125 AC	150 DC	4	30	SEA-M12-4WD-PG7	185 498
	Straight plug, 5-pin, screw terminal	Threaded connector M12	30 AC	36 DC	3	25	SEA-M12-5GS-PG7	175 487

# Electrical connection technology, for inputs/outputs

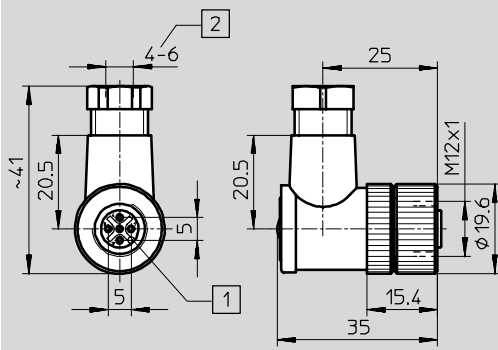
Technical data – SEA-M12

FESTO

## Dimensions

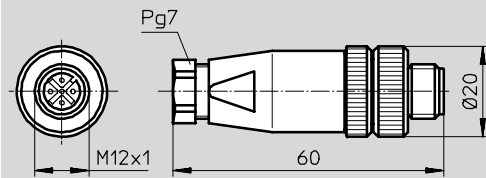
Download CAD data → [www.festo.com/en/engineering](http://www.festo.com/en/engineering)

SEA-M12-4WD-PG7



- 1 Insert rotatable in steps of 90°
- 2 Cable diameter 4 ... 6 mm

SEA-M12-5GS-PG7





# Electrical connection technology, for inputs/outputs

Technical data – SEA-GS-HAR

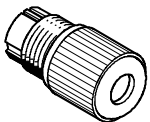


- Sensor plug/socket for inputs/ outputs
- Can be fabricated with any cable lengths
- 4-pin
- Wire cross section of up to 0.5 mm<sup>2</sup>



## 5.1

General technical data	
Type	SEA-GS-HAR-4POL
Mounting position	Any
Current-carrying capacity [A]	3
Cable gland fitting	Pg9
Perm. cable diameter [mm]	4 ... 5.1
Max. wire cross section [mm <sup>2</sup> ]	0.25 ... 0.5
Protection class to EN 60 529	IP67 (assembled)
Material of housing	Nickel-plated brass
Material of contacts	Gold-plated copper base alloy
Ambient temperature [°C]	-25 ... +85

Ordering data							
	Electrical connection	Type of mounting	Operating voltage range		Product weight [g]	Type	Part No.
			[V]	[V]			
	Socket, straight, 4-pin, slot terminal	Threaded connector M12	32 AC	32 DC	11.5	SEA-GS-HAR-4POL	525 928

**Dimensions** Download CAD data → [www.festo.com/en/engineering](http://www.festo.com/en/engineering)

SEA-GS-HAR

