

Technical Data

RoHS

Panel connector, cable connector and coupler connector

Locking

Protection

Contacts

Max. current

Contact resistance between pin and socket

Breakdown voltage between adjacent contacts

Breakdown voltage between peripheral contacts and ground

Insulation resistance

Operating temperature

Materials

Max. cross-section of soldered conductors

Panel connector



Cable connector



Coupler connector



circular housing

screw connection

IP 65 with flat-gasket for panel connector

3 to 52 contacts \varnothing 2 mm – \varnothing 3 mm – \varnothing 4 mm non-removable solder contacts

15 A \varnothing 2 mm – 35 A \varnothing 3 mm – 50 A \varnothing 4 mm

< 1,5 m Ω \varnothing 2 mm – < 1 m Ω \varnothing 3 mm – < 0,7 m Ω \varnothing 4 mm

> 2500 Volts (RMS)

> 1500 Volts (RMS), (> 2000 Volts (RMS) 4 contacts \varnothing 4 mm)

> 5000 M Ω

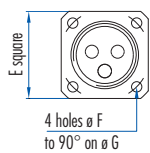
-40 °C to 100 °C (500 hours at 125 °C)

Nickel-plated light alloy, silver-plated brass contact, PBT insert except contacts diameter 4 mm which are gold-plated brass

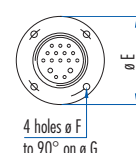
1,34 mm² \varnothing 2 mm – 3,18 mm² \varnothing 3 mm – 5,26 mm² \varnothing 4 mm

Dimensional Data

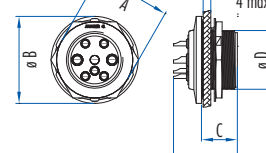
Panel connector



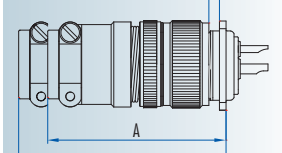
Circular male panel connectors housings 3 to 5



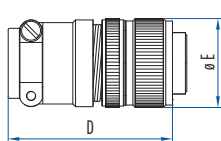
Circular male panel connectors housings 1 and 2



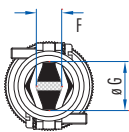
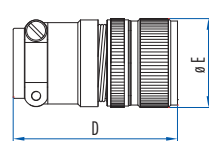
Panel connector + Cable connector assembly



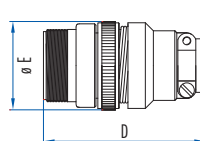
Female cable connector



Male cable connector



Male coupler connector



Housing	Number of Contacts	Square male panel connector							Male cable connector panel connector assembly	Male cable connector				Female cable connector panel connector assembly				Female cable connector				Male coupler connector				Male panel connector																			
		\varnothing D	E	\varnothing F	\varnothing G	H	J	K		A	B	C	D	\varnothing E	\varnothing F	\varnothing G	A	B	C	D	\varnothing E	\varnothing F	\varnothing G	A	\varnothing B	C	\varnothing D	\varnothing E	\varnothing F	\varnothing G															
1	3-4-6	21	27	3,2	28	24,8	2	12,5	58,5	69,5	4	52	26	7	10	55	67	4	52,5	26	7	10	53	25,5	7	10	29	34	16,5	M21															
2	4-8-12	27	32	3,2	34	29	2	12,5	66,5	77,5	4	59,5	33	9	13,5	61,5	73,5	4	59	33	9	13,5	61	32,5	9	13,5	35	40	16,5	M27															
3	17	39	43	4,2	48	22,5	2	12	76,5	87	4	69,5	44	12,5	17	70	81	4	66,5	44	12,5	17	69	43,5	12,5	17											57	4,2	48						
4	25	45	47	4,2	54	23,7	2	12	81,5	93	4	75,5	51	12,5	17	75	86	4	71,5	51	12,5	17	73	50	12,5	17													63	4,2	54				
5	35-52	52	54	4,2	62	28,7	2	12	87	96,5	4	79	58	16	23	77	88	4	73,5	58	16	23	78,5	56,5	16	23															72	4,2	62		
Housing	Number of Contacts	Square female panel connector							Male cable connector panel connector assembly	Male cable connector				Female cable connector panel connector assembly				Female cable connector				Male coupler connector																							
		\varnothing D	E	\varnothing F	\varnothing G	H	J	K		A	B	C	D	\varnothing E	\varnothing F	\varnothing G	A	B	C	D	\varnothing E	\varnothing F	\varnothing G	A	\varnothing B	\varnothing F	\varnothing G																		
1	3-4-6	21	27	3,2	28	25	2	16	60,5	69,5	4	53,5	26	9	12	56	68	4	49,5	26	9	12	54	25,5	9	12																			
2	4-8-12	27	32	3,2	34	31	2	16	68,5	78,5	4	61,5	33	12,5	17	63,5	75,5	4	57,5	33	12,5	17	63	32,5	12,5	17																			
3	17	39	43	4,2	48	26	2	18,5	78,5	90	4	72,5	44	16	23	73	84	4	67	44	16	23	72	43,5	16	23																			
4	25	45	47	4,2	54	26	2	18,5	87,5	95,5	4	78	51	16	23	79	90	4	72,5	51	16	23	77	50	16	23																			
5	35-52	52	54	4,2	62	26	2	18,5	91	100,5	4	83	58	22	32	81	92	4	78	58	22	32	82,5	58,5	22	32																			

*** B: minimum disconnection distance

Part Number

Housing	1	1	1	2	2	2	3	4	5	5
Number of Contacts	3	4	6	4	8	12	17	25	35	52
L \varnothing 2 mm	1	4	6		6	12	15	23	33	52
L \varnothing 3 mm	2				2		2	2	2	
L \varnothing 4 mm				4						

Male panel connectors – Female cable connectors – Male coupler connectors

Circular male panel connector*	°536 753 006	°536 754 006	°536 756 006		°536 758 006	°536 762 006	°536 117 006	°536 125 006	°536 135 006	°533 706 006
Square male panel connector	°038 351 006	°043 082 006	°038 355 006	°533 763 006	°038 356 006	°038 359 006	°038 322 006	°042 986 006	°043 001 006	°533 703 006
Female cable connector + cable clamp, small outlet	532 401 006	532 402 006	532 403 006	532 763 006	532 404 006	532 405 006	532 406 006	532 407 006	532 408 006	530 713 006
Male coupler connector + cable clamp, small outlet	532 481 006	532 482 006	532 483 006	532 786 006	532 484 006	532 485 006	532 486 006	532 487 006	532 488 006	530 717 006
L Capacity of the cable clamp in mm	\varnothing 7 – 10	\varnothing 7 – 10	\varnothing 7 – 10	\varnothing 9 – 13,5	\varnothing 9 – 13,5	\varnothing 9 – 13,5	\varnothing 12,5 – 17	\varnothing 12,5 – 17	\varnothing 16 – 23	\varnothing 16 – 23
Female cable connector + cable clamp, large outlet	532 411 006	532 412 006	532 413 006	530 773 006	532 414 006	532 415 006	532 416 006	532 417 006	532 418 006	530 714 006
Male coupler connector + cable clamp, large outlet	532 471 006	532 472 006	532 473 006	530 776 006	532 474 006	532 475 006	532 476 006	532 477 006	532 478 006	530 718 006
L Capacity of the cable clamp in mm	\varnothing 9 – 12	\varnothing 9 – 12	\varnothing 9 – 12	\varnothing 12,5 – 17	\varnothing 12,5 – 17	\varnothing 12,5 – 17	\varnothing 16 – 23	\varnothing 16 – 23	\varnothing 22 – 32	\varnothing 22 – 32
Flat-Gasket for panel connector (pack of 10)	536 945 006	536 945 006	536 945 006	536 946 006	536 946 006	536 946 006	536 947 006	536 126 006	536 136 006	536 136 006
Protective cap for panel connector	536 910 006	536 910 006	536 910 006	536 911 006	536 911 006	536 911 006	536 912 006	536 913 006	536 914 006	536 914 006
Protective cap for female cable connector	532 270 006	532 270 006	532 270 006	532 271 006	532 271 006	532 271 006	532 262 206	532 268 206	532 269 206	532 269 206
Protective cap for coupler connector	536 910 756	536 910 756	536 910 756							

Female panel connectors – Male cable connectors

Square female panel connector	°536 603 006	°536 604 006	°536 606 006	°533 760 006	°536 608 006	°536 612 006	°536 617 006	°536 625 006	°536 635 006	°533 700 006
Male cable connector + cable clamp, small outlet	532 431 006	532 432 006	532 433 006	532 760 006	532 434 006	532 435 006	532 436 006	532 437 006	532 438 006	530 710 006
L Capacity of the cable clamp in mm	\varnothing 7 – 10	\varnothing 7 – 10	\varnothing 7 – 10	\varnothing 9 – 13,5	\varnothing 9 – 13,5	\varnothing 9 – 13,5	\varnothing 12,5 – 17	\varnothing 12,5 – 17	\varnothing 16 – 23	\varnothing 16 – 23
Male cable connector + cable clamp, large outlet	532 441 006	532 442 006	532 443 006	530 770 006	532 444 006	532 445 006	532 446 006	532 447 006	532 448 006	530 711 006
L Capacity of the cable clamp in mm	\varnothing 9 – 12	\varnothing 9 – 12	\varnothing 9 – 12	\varnothing 12,5 – 17	\varnothing 12,5 – 17	\varnothing 12,5 – 17	\varnothing 16 – 23	\varnothing 16 – 23	\varnothing 22 – 32	\varnothing 22 – 32
Flat-Gasket for panel connector (pack of 10)	536 945 006	536 945 006	536 945 006	536 946 006	536 946 006	536 946 006	536 947 006	536 126 006	536 136 006	536 136 006
Protective cap for panel connector	536 910 006	536 910 006	536 910 006	536 911 006	536 911 006	536 911 006	536 912 006	536 913 006	536 914 006	536 914 006
Protective cap for female cable connector	532 280 006	532 280 006	532 280 006	532 281 006	532 281 006	532 281 006	532 262 206	532 268 206	532 269 206	532 269 206
Protective cap for coupler connector	536 910 756	536 910 756	536 910 756							

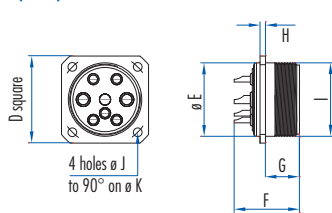
- Moulded watertight rubber boots for cables are delivered with the connectors. They must be mounted in the cable connectors or coupler connectors.
- For the version with 4 contacts \varnothing 4 mm, contact No. 4 of the panel connector and the coupler connector, which makes the electrical connection before the other 3 contacts and disconnects it after separation, can be used as a ground contact.
- ° The panel connectors are also compatible with the „Standard cable connectors“ page 10 and „Waterproof PG cable connectors“ page 26.
- ° Square female panel connectors are also of the „Rapid“ type, page 16 with 3 to 12 contacts.
- For assembly, wiring, panel connector installation and contact arrangement instructions, see: Technical guides;
- Other accessories, see: Accessories.
- * The circular male panel connector with 3 to 12 contacts includes a body, a seal, a nut and its locknut.

Technical Data

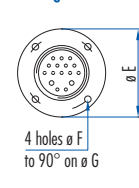
	Panel connector	Cable connector	Coupler connector
Panel connector, cable connector and coupler connector	circular housing		
Locking	screw connection		
Protection	IP 65 with flat-gasket for panel connector		
Contacts	3 to 52 contacts \varnothing 2 mm – \varnothing 3 mm – \varnothing 4 mm non-removable solder contacts		
Max. current	15 A \varnothing 2 mm – 35 A \varnothing 3 mm – 50 A \varnothing 4 mm		
Contact resistance between pin and socket	$< 1,5 \text{ m}\Omega$ \varnothing 2 mm – $< 1 \text{ m}\Omega$ \varnothing 3 mm – $< 0,7 \text{ m}\Omega$ \varnothing 4 mm		
Tightness (only valid for circular panel connectors)	leak observed under a differential pressure of 2 bars: $< 15 \text{ cm}^3/\text{hour}$		
Breakdown voltage between adjacent contacts	> 2500 Volts (RMS)		
Breakdown voltage between peripheral contacts and ground	> 1500 Volts (RMS), (> 2000 Volts (RMS) 4 contacts \varnothing 4 mm)		
Insulation resistance	$> 5000 \text{ M}\Omega$		
Operating temperature	-40°C to $+100^\circ\text{C}$ (500 hours at $+125^\circ\text{C}$)		
Materials	Brass with olive-green cadmium surface treatment, gold-plated brass contacts, PBT insert		
Max. cross-section of soldered conductors	1,34 mm ² \varnothing 2 mm – 3,18 mm ² \varnothing 3 mm – 5,26 mm ² \varnothing 4 mm		

Dimensional Data

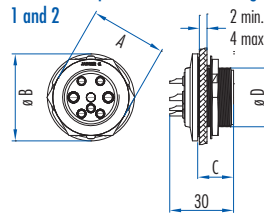
Square panel connector



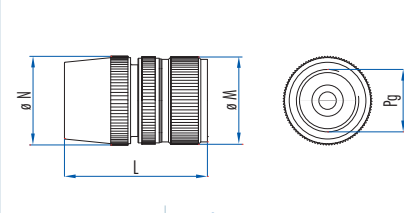
Circular male panel connectors housings 3 to 5



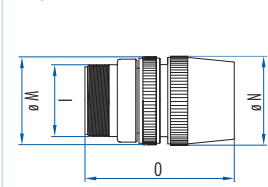
Circular male panel connectors housings 1 and 2



Cable connector

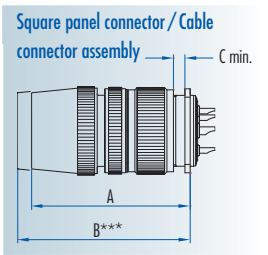


Coupler connector



Housing	Number of Contacts	Assembly			Square male panel connector											Female cable connector Male coupler connector					Circular male panel connector														
		A	B	C	D	ø E	F	G	H	I	ø J	ø K	L	ø M	ø N	PG	A	ø B	C	ø D	ø E	ø F	ø G												
1	3-4-6	57,5	69	4	27	21	25,8	12,5	2	M21	3,2	28	55	26	25	51	11	29	34	16,5	M21														
2	4-8-12	61,5	73	4	32	27	24	12,5	2	M27	3,2	34	60	33	33,5	55,5	16	35	40	16,5	M27														
3	17	71	82	4	43	39	23,7	12	2	Tr39	4,2	48	65	44	44	65	21											57	4,2	48					
4	25	75	86	4	47	45	23,7	12	2	Tr45	4,2	54	69	51	52	75	29											63	4,2	54					
5	35-52	80	91	4	54	52	23,7	12	2	Tr52	4,2	62	74	58	58	77	36											72	4,2	62					

*** B: minimum disconnection distance



Part Number

Housing	1	1	1	2	2	2	3	4	5	5
Number of Contacts	3	4	6	4	8	12	17	25	35	52
L ø 2 mm	1	4	6		6	12	15	23	33	52
L ø 3 mm	2				2		2	2	2	
L ø 4 mm				4						

Male panel connectors – Female cable connectors – Male coupler connectors

Circular male panel connector*	536 753 256	536 754 256	536 756 256		536 758 256	536 762 256	536 117 256	536 125 256	536 135 256	533 706 256
Square male panel connector	038 351 256	043 082 256	038 355 256	533 763 256	038 356 256	038 359 256	038 322 256	042 986 256	043 001 256	533 703 256
Female cable connector	633 401 256	633 402 256	633 403 256	633 410 256	633 404 256	633 405 256	633 406 256	633 407 256	633 408 256	633 409 256
Male coupler connector	633 481 256	633 482 256	633 483 256	633 490 256	633 484 256	633 485 256	633 486 256	633 487 256	633 488 256	633 489 256
PG	PG 11	PG 11	PG 11	PG 16	PG 16	PG 16	PG 21	PG 29	PG 36	PG 36
Cable clamp	633 421 256	633 421 256	633 421 256	633 422 256	633 422 256	633 422 256	633 423 256	633 424 256	633 425 256	633 425 256
L Capacity of the cable clamp in mm	ø 7,5 – 12	ø 7,5 – 12	ø 7,5 – 12	ø 9,8 – 17	ø 9,8 – 17	ø 9,8 – 17	ø 15,5 – 23	ø 15,8 – 24	ø 19 – 32	ø 19 – 32
Flat-Gasket for panel connector (pack of 10)	536 945 006	536 945 006	536 945 006	536 946 006	536 946 006	536 946 006	536 947 006	536 126 006	536 136 006	536 136 006
Protective cap for panel connector	536 910 256	536 910 256	536 910 256	536 911 256	536 911 256	536 911 256	536 912 256	536 913 256	536 914 256	536 914 256
Protective cap for female cable connector	532 270 256	532 270 256	532 270 256	532 271 256	532 271 256	532 271 256	532 262 256	532 268 256	532 269 256	532 269 256

Female panel connectors – Male cable connectors

Square female panel connector	536 603 256	536 604 256	536 606 256	533 760 256	536 608 256	536 612 256	536 617 256	536 625 256**	536 635 256**	533 700 256**
Male cable connector	633 431 256	633 432 256	633 433 256	633 440 256	633 434 256	633 435 256	633 436 256	633 437 256	633 438 256	633 439 256
PG	PG 11	PG 11	PG 11	PG 16	PG 16	PG 16	PG 21	PG 29	PG 36	PG 36
Cable clamp	633 421 256	633 421 256	633 421 256	633 422 256	633 422 256	633 422 256	633 423 256	633 424 256	633 425 256	633 425 256
L Capacity of the cable clamp in mm	ø 7,5 – 12	ø 7,5 – 12	ø 7,5 – 12	ø 9,8 – 17	ø 9,8 – 17	ø 9,8 – 17	ø 15,5 – 23	ø 15,8 – 24	ø 19 – 32	ø 19 – 32
Flat-Gasket for panel connector (pack of 10)	536 945 006	536 945 006	536 945 006	536 946 006	536 946 006	536 946 006	536 947 006	536 126 006	536 136 006	536 136 006
Protective cap for panel connector	536 910 256	536 910 256	536 910 256	536 911 256	536 911 256	536 911 256	536 912 256	536 913 256	536 914 256	536 914 256
Protective cap for male cable connector	532 280 256	532 280 256	532 280 256	532 281 256	532 281 256	532 281 256	532 262 256	532 268 256	532 269 256	532 269 256

- For the version with 4 contacts ø 4 mm, contact No. 4 of the panel connector and the coupler connector, which makes the electrical connection before the other 3 contacts and disconnects it after separation, can be used as a ground contact.
- Moulded watertight rubber boots for cables are delivered with the connectors. They must be mounted in the cable connectors or coupler connectors.
- For assembly, wiring, panel connector installation and contact arrangement instructions, see: Technical guides.
- Other accessories, see: Accessories.
- * The circular male panel connector with 3 to 12 contacts includes a body, a seal, a nut and its locknut.

Technical Data

RoHS

Panel connector, cable connector and coupler connector

Locking	screw connection
Protection	IP 65 with flat-gasket for panel connector
Contacts	3 to 17 contacts \varnothing 2 mm – \varnothing 3 mm – \varnothing 4 mm non-removable solder contacts
Max. current	15 A \varnothing 2 mm – 35 A \varnothing 3 mm – 50 A \varnothing 4 mm
Contact resistance between pin and socket	< 1,5 m Ω \varnothing 2 mm – < 1 m Ω \varnothing 3 mm – < 0,7 m Ω \varnothing 4 mm
Breakdown voltage between adjacent contacts	> 2500 Volts (RMS)
Breakdown voltage between peripheral contacts and ground	> 1500 Volts (RMS), (> 2000 Volts (RMS) 4 contacts \varnothing 4 mm)
Insulation resistance	> 5000 M Ω
Operating temperature	-40 °C to +100 °C (500 hours at +125 °C)
Materials	Nickel-plated light alloy, silver-plated brass contact, PBT insert except contacts diameter 4 mm which are gold-plated brass
Max. cross-section of soldered conductors	1,34 mm ² \varnothing 2 mm – 3,18 mm ² \varnothing 3 mm – 5,26 mm ² \varnothing 4 mm

Panel connector



Cable connector

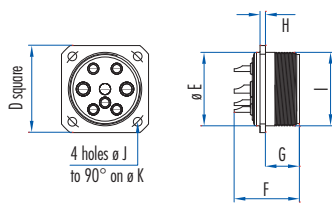


Coupler connector

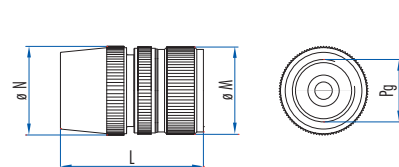


Dimensional Data

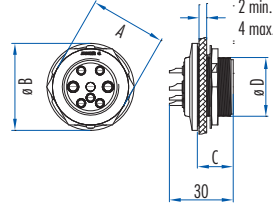
Square panel connector



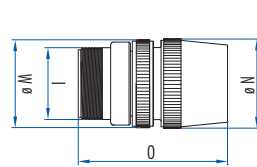
Cable connector



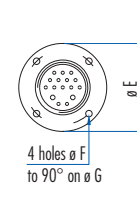
Circular male panel connectors housings 1 and 2



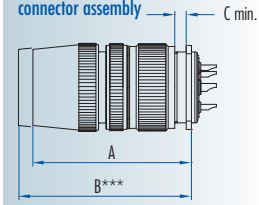
Coupler connector



Circular male panel connectors housing 3



Square panel connector / Cable connector assembly



Housing	Number of Contacts	Assembly			Square male panel connector											Female cable connector – Male coupler connector					Circular male panel connector							
		A	B	C	D	ø E	F	G	H	I	ø J	ø K	L	ø M	ø N	PG	A	ø B	C	ø D	ø E	ø F	ø G					
1	3-4-6	57,5	69	4	27	21	25,8	12,5	2	M21	3,2	28	55	26	25	51	11	29	34	16,5	M21							
2	4-8-12	61,5	73	4	32	27	24	12,5	2	M27	3,2	34	60	33	33,5	55,5	16	35	40	16,5	M27							
3	17	71	82	4	43	39	23,7	12	2	Tr39	4,2	48	65	44	44	65	21								57	4,2	48	

Housing	Number of Contacts	Assembly			Square female panel connector								Male cable connector			
		A	B	C	D	ø E	F	G	H	I	ø J	ø K	L	ø M	ø N	PG
1	3-4-6	61	72	4	27	21	25	16	2	M21	3,2	28	54	26	25	11
2	4-8-12	66,5	78	4	32	27	24	16	2	M27	3,2	34	58,5	33	33,5	16
3	17	71,5	83	4	43	39	29,6	18,5	2	Tr39	4,2	48	65,5	44	44	21

*** B: minimum disconnection distance

Part Number

Housing	1	1	1	2	2	2	3
Number of Contacts	3	4	6	4	8	12	17
L \varnothing 2 mm	1	4	6		6	12	
L \varnothing 3 mm	2				2		2
L \varnothing 4 mm				4			

Male panel connectors – Female cable connectors – Male coupler connectors

Circular male panel connector*	°536 753 006	°536 754 006	°536 756 006		°536 758 006	°536 762 006	°536 117 006
Square male panel connector	°038 351 006	°043 082 006	°038 355 006	°533 763 006	°038 356 006	°038 359 006	°038 322 006
Female cable connector	633 401 006	633 402 006	633 403 006	633 410 006	633 404 006	633 405 006	633 406 006
Male coupler connector	633 481 006	633 482 006	633 483 006	633 490 006	633 484 006	633 485 006	633 486 006
PG	PG 11	PG 11	PG 11	PG 16	PG 16	PG 16	PG 21
Cable clamp	633 421 006	633 421 006	633 421 006	633 422 006	633 422 006	633 422 006	633 423 006
L Capacity of the cable clamp in mm	\varnothing 7,5–12	\varnothing 7,5–12	\varnothing 7,5–12	\varnothing 9,8–17	\varnothing 9,8–17	\varnothing 9,8–17	\varnothing 15,5–23
Flat-Gasket for panel connector (pack of 10)	536 945 006	536 945 006	536 945 006	536 946 006	536 946 006	536 946 006	536 947 006
Protective cap for panel connector	536 910 006	536 910 006	536 910 006	536 911 006	536 911 006	536 911 006	536 912 006
Protective cap for female cable connector	532 270 006	532 270 006	532 270 006	532 271 006	532 271 006	532 271 006	532 262 006
Protective cap for coupler connector	536 910 756	536 910 756	536 910 756				

Female panel connectors – Male cable connectors

Square female panel connector	°536 603 006	°536 604 006	°536 606 006	°533 760 006	°536 608 006	°536 612 006	°536 617 006
Male cable connector	633 431 006	633 432 006	633 433 006	633 440 006	633 434 006	633 435 006	633 436 006
PG	PG 11	PG 11	PG 11	PG 16	PG 16	PG 16	PG 21
Cable clamp	633 421 006	633 421 006	633 421 006	633 422 006	633 422 006	633 422 006	633 423 006
L Capacity of the cable clamp in mm	\varnothing 7,5–12	\varnothing 7,5–12	\varnothing 7,5–12	\varnothing 9,8–17	\varnothing 9,8–17	\varnothing 9,8–17	\varnothing 15,5–23
Flat-Gasket for panel connector (pack of 10)	536 945 006	536 945 006	536 945 006	536 946 006	536 946 006	536 946 006	536 947 006
Protective cap for panel connector	536 910 006	536 910 006	536 910 006	536 911 006	536 911 006	536 911 006	536 912 006
Protective cap for male cable connector	532 280 006	532 280 006	532 280 006	532 281 006	532 281 006	532 281 006	532 262 006
Protective cap for coupler connector	536 910 756	536 910 756	536 910 756				

- For the version with 4 contacts \varnothing 4 mm, contact No. 4 of the panel connector and the coupler connector, which makes the electrical connection before the other 3 contacts and disconnects it after separation, can be used as a ground contact.
- ° The panel connectors are also compatible with the „Standard cable connectors“ page 10 and „Waterproof cable connectors“ page 22.
- ° Square female panel connectors are also of the „Rapid“ type, page 16 with 3 to 12 contacts.
- Moulded watertight rubber boots for cables are delivered with the connectors. They must be mounted in the cable connectors or coupler connectors.
- For assembly, wiring, panel connector installation and contact arrangement instructions, see: Technical guides.
- Other accessories, see: Accessories.
- * The circular male panel connector with 3 to 12 contacts includes a body, a seal, a nut and its locknut.