

Miniature Push-Pull Series – Atto Miniature Push-Pull

Technical Data

RoHS

Panel connector, cable connector
and coupler connector

Panel connector



Cable connector



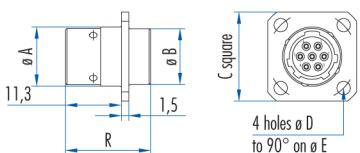
Coupler connector



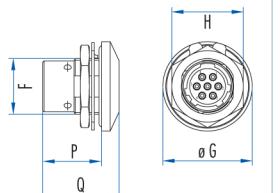
Locking	Push-Pull, for frequent mating
Protection	IP 65 with flat-gasket for panel connector
Contacts	7 to 27 contacts ø 0,76 mm, crimp or solder removable contacts
Max. current	5A ø 0,76 mm
Mechanical endurance	50000 locking and mating cycles
Contact resistance	< 3 mΩ
Breakdown voltage between adjacent contacts	> 1500 Volts (RMS)
Insulation resistance	> 5000 MΩ
Operating temperature	-40 °C to +100 °C (500 hours at +100 °C)
Materials	Nickel-plated light alloy, gold-plated brass contacts, neoprene insert
Max. conductor cross-section	0,34 mm²

Dimensional Data

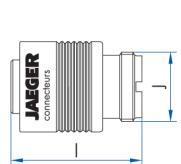
Square panel connector



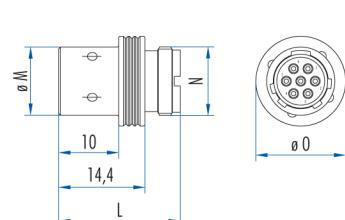
Circular panel connector



Cable connector



Coupler connector



Housing	Number of Contacts	Square panel connector					Circular panel connector					Cable connector			Coupler connector			
		ø A	ø B	C	ø D	ø E	F	ø G	H	P	Q	I	J	ø K	L	ø M	N	ø O
00	7	12	11,3	18	2,7	18	M12,5	20	16	13,3	17,2	21,7	M11,5	15	20,3	11,4	M1,5	15
0	8-12-19	14,9	14,9	20	2,7	21	M16	23	19	13,3	17,2	22,2	M15	18,7	20,8	14,9	M15	18,7
1	27	21	20,9	27	3,2	28	M25	34	30	17,9	20,3	24,2	M20	25	24,2	20,1	M20	24

Miniature Push-Pull Series – Atto Miniature Push-Pull

Part Number

Housing	00	0	0	0	1
Number of Contacts ø 0,76 mm	7	8	12	19	27

Male panel connectors – Female cable connectors – Male coupler connectors

Square male panel connector	761 107 006	761 108 006	761 112 006	761 119 006	761 127 006
Circular male panel connector	761 107 206	761 108 206	761 112 206	761 119 206	761 127 206
Female cable connector	762 207 006	762 208 006	762 212 006	762 219 006	762 227 006
Male coupler connector	763 107 006	763 108 006	763 112 006	763 119 006	763 127 006
Long cable gland	769 807 006	769 819 006	769 819 006	769 819 006	769 827 006
Flat-Gasket for panel connector (pack of 10)	533 328 006	533 368 006	533 368 006	533 368 006	536 945 006
Cable clamps	769 607 006	769 619 006	769 619 006	769 619 006	769 627 006
Protective cap for panel connector	533 610 006	533 650 006	533 650 006	533 650 006	761 907 006
Protective cap for cable connector	536 620 006	536 660 006	536 660 006	536 660 006	536 610 006

Crimp tool without positioner 630 180 006, positioner 769 100 006

Tool for insertion and removing contacts 769 131 006

Female panel connectors – Male cable connectors – Female coupler connectors

Square female panel connector	761 207 006	761 208 006	761 212 006	761 219 006	761 227 006
Circular female panel connector	761 207 206	761 208 206	761 212 206	761 219 206	761 227 206
Male cable connector	762 107 006	762 108 006	762 112 006	762 119 006	762 127 006
Female coupler connector	763 207 006	763 208 006	763 212 006	763 219 006	763 227 006
Long cable gland	769 807 006	769 819 006	769 819 006	769 819 006	769 827 006
Flat-Gasket for panel connector (pack of 10)	533 328 006	533 368 006	533 368 006	533 368 006	536 945 006
Cable clamps	769 607 006	769 619 006	769 619 006	769 619 006	769 627 006
Protective cap for panel connector	533 610 006	533 650 006	533 650 006	533 650 006	761 907 006
Protective cap for cable connector	536 620 006	536 660 006	536 660 006	536 660 006	536 610 006

Crimp tool without positioner 630 180 006, positioner 769 100 006

Tool for insertion and removing contacts 769 131 006

- Straight and right-angle panel connectors are also available for printed circuit boards.

- **Important:** All the contacts must be mounted in the insert using our tool.

- For assembly, wiring, panel connector installation and contact arrangement instructions, see: Technical guides;

- Other accessories, see: Accessories.

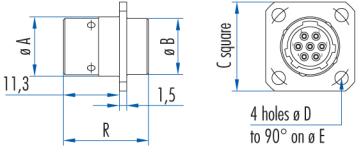
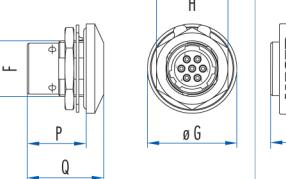
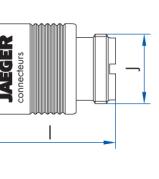
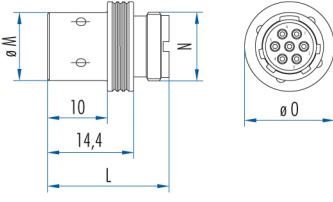
- All connectors are delivered with their contacts.

Miniature Push-Pull Series – Natto Miniature Push-Pull

Technical Data

RoHS	Panel connector	Cable connector	Coupler connector
Panel connector, cable connector and coupler connector	circular housing		
Locking	Push-Pull, for frequent mating		
Protection	IP 65 with flat-gasket for panel connector except for housing 1 IP 50 to 54 with conexil in the housing and flat-gasket for panel connector		
Contacts	3 to 19 contacts ø 1 mm, ø 1,6 mm and ø 2,4 mm, crimp or solder removable contacts		
Max. current	7 A ø 1 mm, 15 A ø 1,6 mm et 30 A ø 2,4 mm		
Mechanical endurance	50000 locking and mating cycles		
Contact resistance	< 2 mΩ 1 mm – < 1,5 mΩ 1,6 mm – < 1 mΩ 2,4 mm		
Breakdown voltage between adjacent contacts	> 2500 Volts (RMS)		
Insulation resistance	> 5000 MΩ		
Operating temperature	-40 °C to +100 °C (500 hours at +100 °C)		
Materials	Nickel-plated light alloy, gold-plated brass contacts, neoprene insert		
Max. conductor cross-section	0,93 mm² for 3–7 or 12 contacts ø 1 mm 0,60 mm² for 4 or 19 contacts ø 1 mm 1,50 mm² for 3–4 or 7 contacts ø 1,6 mm 3,18 mm² for 3 or 4 contacts ø 2,4 mm		

Dimensional Data

Square panel connector	Circular panel connector	Cable connector	Coupler connector			
						
Housing mm	ø mm	Number of Contacts	Square panel connector ø A ø B C ø D ø E	Circular panel connector F ø G H P Q	Cable connector I J ø K	Coupler connector L ø M N ø O
00	1	3-4	12 11,3 18 2,7 18	M12,5 20 16 13,3 17,2 21,7	M11,5 15 21,7 M11,5 15	20,3 11,4 M11,5 15
0	1	7	14,9 14,9 20 2,7 21	M16 23 19 13,3 17,2 22,2	M15 18,7 20,8 14,9 M15 18,7	20,8 14,9 M15 18,7
1	1	12-19	21 20,9 27 3,2 28	M25 34 30 17,9 20,3 24,2	M20 25 24,2 20,1 M20 24	24,2 20,1 M20 24
1	1,6	3-4-7	21 20,9 27 3,2 28	M25 34 30 17,9 20,3 24,2	M20 25 24,2 20,1 M20 24	24,2 20,1 M20 24
1	2,4	3-4	21 20,9 27 3,2 28	M25 34 30 17,9 20,3 24,2	M20 25 24,2 20,1 M20 24	24,2 20,1 M20 24

Part Number

Housing	00	00	0	1	1	1	1	1	1	1
Number of Contacts	3	4	7	12	19	3	4	7	3	4
L ø mm	1	1	1	1	1	1,6	1,6	1,6	2,4	2,4

Male panel connectors – Female cable connectors – Male coupler connectors

Square male panel connector	533 233 006	533 801 006	533 273 006	533 283 006	533 293 006	535 310 006	535 350 006	535 390 006	535 430 006	535 470 006
Circular male panel connector	533 239 006	533 811 006	533 279 006	533 319 006	533 359 006	535 310 206	535 350 206	535 390 206	535 430 206	535 470 206
Female cable connector	530 232 006	530 801 006	530 272 006	530 282 006	530 292 006	535 111 006	535 151 006	535 191 006	535 231 006	535 271 006
Male coupler connector	530 239 006	530 811 006	530 279 006	530 812 006	530 815 006	535 210 006	535 250 006	535 290 006	535 330 006	535 370 006
Union nut	530 330 006	530 840 006	530 370 006							
Flat-Gasket for panel connector (pack of 10)	533 328 006	533 328 006	533 368 006	536 945 006	536 945 006	536 945 006	536 945 006	536 945 006	536 945 006	536 945 006
Cable clamps	530 331 006	530 841 006	530 371 006	769 627 006	769 627 006	769 627 006	769 627 006	769 627 006	769 627 006	769 627 006
Protective cap for panel connector	533 610 006	533 610 006	533 650 006	761 907 006	761 907 006	761 907 006	761 907 006	761 907 006	761 907 006	761 907 006

Complete crimp tool: 579 316 006 (small crimp: ø 1 mm), 579 481 006 (large crimp: ø 1 mm, ø 1,6 mm, ø 2,4 mm)

Tool for insertion and removing contacts ø 1 mm 597 104 006, ø 1,6 mm 577 454 006 ø 2,4 mm 577 458 006

Female panel connectors – Male cable connectors – Female coupler connectors

Square female panel connector	533 232 006	533 800 006	533 272 006	533 282 006	533 292 006	535 311 006	535 351 006	535 391 006	535 431 006	535 471 006
Circular female panel connector	533 238 006	533 810 006	533 278 006	533 318 006	533 358 006	535 311 206	535 351 206	535 391 206	535 431 206	535 471 206
Male cable connector	530 233 006	530 800 006	530 273 006	530 283 006	530 293 006	535 110 006	535 150 006	535 190 006	535 230 006	535 270 006
Female coupler connector	530 238 006	530 810 006	530 278 006	530 813 006	530 816 006	535 211 006	535 251 006	535 291 006	535 331 006	535 371 006
Union nut	530 330 006	530 840 006	530 370 006							
Flat-Gasket for panel connector (pack of 10)	533 328 006	533 328 006	533 368 006	536 945 006	536 945 006	536 945 006	536 945 006	536 945 006	536 945 006	536 945 006
Cable clamps	530 331 006	530 841 006	530 371 006	769 627 006	769 627 006	769 627 006	769 627 006	769 627 006	769 627 006	769 627 006
Protective cap for cable connector	536 620 006	536 620 006	536 660 006	536 610 006	536 610 006	536 610 006	536 610 006	536 610 006	536 610 006	536 610 006

Complete crimp tool: 579 316 006 (small crimp: ø 1 mm), 579 481 006 (large crimp: ø 1 mm, ø 1,6 mm, ø 2,4 mm)

Tool for insertion and removing contacts ø 1 mm 597 104 006, ø 1,6 mm 577 454 006 ø 2,4 mm 577 458 006

- Straight and right-angle panel connectors are also available for printed circuit boards.

- **Important:** All the contacts must be mounted in the insert using our tool.

- For assembly, wiring, panel connector installation and contact arrangement instructions, see: Technical guides;

- Other accessories, see: Accessories.

- Polarisation: Polarisation systems are available to prevent incorrect connection between identical connectors (same series and same contact arrangement). Consult us.

- All connectors are delivered with their contacts.

- Thermocouple contacts can be fitted. See: Accessories.

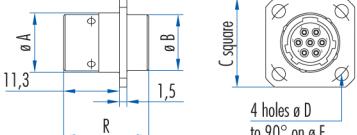
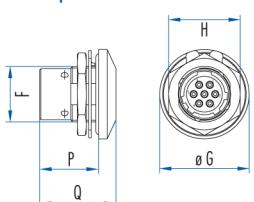
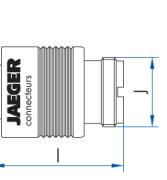
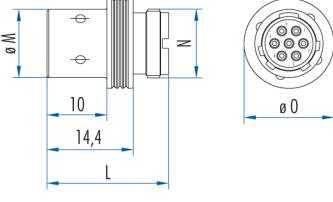
- ø 1,6 mm and ø 2,4mm, contact No. 1, which makes the electrical connection before the other contacts and disconnects it after their separation, can be used as a ground contact.

Miniature Push-Pull Series – Natto Miniature Push-Pull High-Performance

Technical Data

	Panel connector	Cable connector	Coupler connector
Panel connector, cable connector and coupler connector	circular housing		
Locking	Push-Pull, for frequent mating		
Protection	IP 65 with flat-gasket for panel connector except for housing 1 IP 50 to 54 with conexil in the housing and flat-gasket for panel connector		
Contacts	3 to 19 contacts ø 1 mm, ø 1,6 mm and ø 2,4 mm, crimp or solder removable contacts		
Max. current	7 A ø 1 mm, 15 A ø 1,6 mm et 30 A ø 2,4 mm		
Mechanical endurance	50000 locking and mating cycles		
Contact resistance	< 2 mΩ 1 mm – < 1,5 mΩ 1,6 mm – < 1 mΩ 2,4 mm		
Breakdown voltage between adjacent contacts	> 2500 Volts eff		
Insulation resistance	> 5000 MΩ		
Operating temperature	-55 °C to +200 °C (500 hours at +200 °C)		
Materials	Light alloy, black anodising, gold-plated brass contacts, silicon insert		
Max. conductor cross-section	0,93 mm² for 3–7 or 12 contacts ø 1 mm 0,60 mm² for 4 or 19 contacts ø 1 mm 1,50 mm² for 3–4 or 7 contacts ø 1,6 mm 3,18 mm² for 3 or 4 contacts ø 2,4 mm		

Dimensional Data

Square panel connector	Circular panel connector	Cable connector	Coupler connector
			
Housing mm	ø mm	Number of Contacts	ø A ø B C ø D ø E F ø G H P Q I J ø K L ø M N ø O
00	1	3-4	12 11,3 18 2,7 18 M12,5 20 16 13,3 17,2 21,7 M11,5 15 20,3 11,4 M11,5 15
0	1	7	14,9 14,9 20 2,7 21 M16 23 19 13,3 17,2 22,2 M15 18,7 20,8 14,9 M15 18,7
1	1	12-19	21 20,9 27 3,2 28 M25 34 30 17,9 20,3 24,2 M20 25 24,2 20,1 M20 24
1	1,6	3-4-7	21 20,9 27 3,2 28 M25 34 30 17,9 20,3 24,2 M20 25 24,2 20,1 M20 24
1	2,4	3-4	21 20,9 27 3,2 28 M25 34 30 17,9 20,3 24,2 M20 25 24,2 20,1 M20 24

Miniature Push-Pull Series – Natto Miniature Push-Pull High-Performance

Part Number

Housing	00	00	0	1	1	1	1	1	1	1
Number of Contacts	3	4	7	12	19	3	4	7	3	4
L ø mm	1	1	1	1	1	1,6	1,6	1,6	2,4	2,4

Male panel connectors – Female cable connectors – Male coupler connectors

Square male panel connector	533 603 006	533 804 006	533 604 006			535 610 006	535 650 006	535 690 006		
Circular male panel connector	533 603 206	533 804 206	533 604 206			535 610 206	535 650 206	535 690 206		
Female cable connector	530 603 006	530 804 006	530 604 006			535 411 006	535 451 006	535 491 006		
Male coupler connector	530 633 006	530 824 006	530 634 006			535 510 006	535 550 006	535 590 006		
Flat-Gasket for panel connector (pack of 10)	533 328 016	533 328 016	533 368 016	536 945 016	536 945 016	536 945 016	536 945 016	536 945 016	536 945 016	536 945 016
Cable clamps	530 692 006	530 844 006	530 693 006							
Protective cap for panel connector	533 610 106	533 610 106	533 650 106			761 907 106	761 907 106	761 907 106		

Complete crimp tool: 579 316 006 (small crimp: ø 1 mm), 579 481 006 (large crimp: ø 1 mm, ø 1,6 mm, ø 2,4 mm)

Tool for insertion and removing contacts ø 1 mm 597 104 006, ø 1,6 mm 577 454 006 ø 2,4 mm 577 458 006

Female panel connectors – Male cable connectors – Female coupler connectors

Square female panel connector	533 613 006	533 814 006	533 614 006			535 611 006	535 651 006	535 691 006		
Circular female panel connector	533 613 206	533 814 206	533 614 206			535 611 206	535 651 206	535 691 206		
Male cable connector	530 613 006	530 814 006	530 614 006			535 410 006	535 450 006	535 490 006		
Female coupler connector	530 623 006	530 834 006	530 624 006			535 511 006	535 551 006	535 591 006		
Flat-Gasket for panel connector (pack of 10)	533 328 016	533 328 016	533 368 016	536 945 016	536 945 016	536 945 016	536 945 016	536 945 016	536 945 016	536 945 016
Cable clamps	530 692 006	530 844 006	530 693 006							
Protective cap for cable connector	536 620 106	536 620 106	536 660 106			536 610 106	536 610 106	536 610 106		

Complete crimp tool: 579 316 006 (small crimp: ø 1 mm), 579 481 006 (large crimp: ø 1 mm, ø 1,6 mm, ø 2,4 mm)

Tool for insertion and removing contacts ø 1 mm 597 104 006, ø 1,6 mm 577 454 006 ø 2,4 mm 577 458 006

- **Important:** All the contacts must be mounted in the insert using our tool.

- For assembly, wiring, panel connector installation and contact arrangement instructions, see: Technical guides;

- Other accessories, see: Accessories.

- Polarisation: Polarisation systems are available to prevent incorrect connection between identical connectors (same series and same contact arrangement). Consult us.

- All connectors are delivered with their contacts.

- Thermocouple contacts can be fitted. See: Accessories.

- ø 1,6 mm and ø 2,4mm, contact No.1, which makes the electrical connection before the other contacts and disconnects it after their separation, can be used as a ground contact.

Miniature Series – Miniature

Technical Data

RoHS

Panel connector, cable connector
and coupler connector

Panel connector



Cable connector



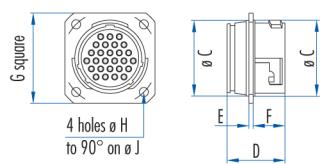
Coupler connector



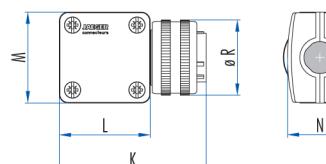
Locking	screw up the knurled ring on the cable connector 1/6 of a turn on the panel connector barrel, for frequent mating
Protection	IP 50 to IP 54 with conexil in the housing, flat-gasket for panel connector
Contacts	12 to 55 contacts ø 1 mm, crimp or solder removable contacts
Max. current	7 A ø 1 mm
Mechanical endurance	over 1000 locking and mating cycles, vibration: 10 g, 500 Hz (NF-C 20706[CEI68-2-6])
Contact resistance between pin and socket	< 0,0020 Ω
Breakdown voltage between adjacent contacts	at 20 °C, at sea-level: 19 or 37 contacts >2000 Volts (RMS), 12, 27 or 55 contacts >2500 Volts (RMS)
Insulation resistance	> 5000 MΩ
Operating temperature	-40 °C to +100 °C (500 hours at +125 °C)
Materials	Nickel-plated light alloy, gold-plated brass contacts, neoprene insert
Max. conductor cross-section	0,93 mm² for 12–27 or 55 contacts 0,60 mm² for 19 or 37 contacts

Dimensional Data

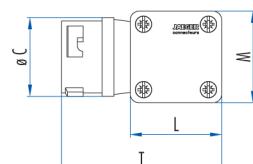
Panel connector



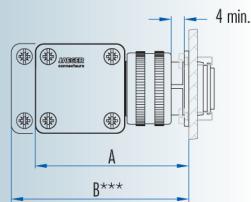
Cable connector



Coupler connector



Cable connector – Panel connector assembly



Housing	Number of Contacts	Assembly		Panel connector										Cable connector and Coupler connector		
		A	B	ø C	D	E	F	G	ø H	ø J	K	L	M	N	ø R	T
1	12-19	54	63	21	20,5	1,5	11,5	27	3,2	28	50	32,2	32,2	20,2	25	50,3
2	27-37	58	67	27	20,5	1,5	11,5	32	3,2	34	54	36,4	36,4	23,5	32,5	54,2
3	55	66	75	39	23	2	11,5	43	4,2	48	61	42,6	47,6	31,3	44	62,1

*** B: minimum disconnection distance

Part Number

Housing	1	1	2	2	3
Number of Contacts ø 1 mm	12	19	27	37	55

Male panel connectors – Female cable connectors – Male coupler connectors

Square male panel connector	#533 503 006	#533 514 006	#533 513 006	#533 525 006	#533 523 006
Female cable connector	530 502 006	530 504 006	530 512 006	530 520 006	530 522 006
Male coupler connector	530 507 006	530 514 006	530 517 006	530 525 006	530 527 006
Type 2 cable clamp	532 328 006	532 328 006	532 329 006	532 329 006	532 350 006
Housing for panel connector	533 550 006	533 550 006	533 558 006	533 558 006	533 559 006
Protective cap for panel connector	630 720 006	630 720 006	536 845 006	536 845 006	536 846 006
Protective cap for cable connector	632 720 006	632 720 006	532 214 006	532 214 006	532 218 006
Flat-Gasket for panel connector (pack of 10)	536 945 006	536 945 006	536 946 006	536 946 006	536 947 006

Complete crimp tool: 579 316 006 (small tool: ø 1 mm), 579 481 006 (large tool: ø 1 mm, ø 1,6 mm, ø 2,4 mm)

Tool for insertion and removing contacts 597 104 006

Female panel connectors – Male cable connectors – Female coupler connectors

Square female panel connector	#533 502 006	#533 515 006	#533 512 006	#533 524 006	#533 522 006
Male cable connector	530 503 006	530 505 006	530 513 006	530 521 006	530 523 006
Female coupler connector	530 506 006	530 515 006	530 516 006	530 524 006	530 526 006
Type 2 cable clamp	532 328 006	532 328 006	532 329 006	532 329 006	532 350 006
Housing for panel connector	533 550 006	533 550 006	533 558 006	533 558 006	533 559 006
Protective cap for panel connector	630 720 006	630 720 006	536 845 006	536 845 006	536 846 006
Protective cap for cable connector	632 720 006	632 720 006	532 214 006	532 214 006	532 218 006
Flat-Gasket for panel connector (pack of 10)	536 945 006	536 945 006	536 946 006	536 946 006	536 947 006

Complete crimp tool: 579 316 006 (small crimp: ø 1 mm), 579 481 006 (large crimp: ø 1 mm, ø 1,6 mm, ø 2,4 mm)

Tool for insertion and removing contacts 597 104 006

- # Square panel connectors are generally of the „Waterproof Miniature“ type. See page 54.

- Sealable tamper-evident connectors for housings 1 and 2. See: Accessories.

- **Important:** All the contacts must be mounted in the insert using our tool.

- For assembly, wiring, panel connector installation and contact arrangement instructions, see: Technical guides;

- Other accessories, see: Accessories.

- Polarisation: Polarisation systems are available to prevent incorrect connection between identical connectors (same series and same contact arrangement). See: Technical guides;

- All connectors are delivered with their contacts.

- Thermocouple contacts can be fitted. See: Accessories.

Miniature Series – Waterproof Miniature

Technical Data

RoHS

Panel connector, cable connector
and coupler connector

Panel connector



Cable connector



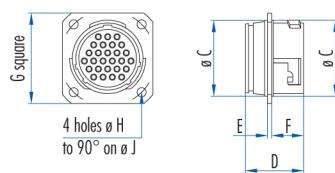
Coupler connector



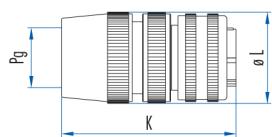
Locking	screw up the knurled ring on the cable connector 1/6 of a turn on the panel connector barrel, for frequent locking and unlocking
Protection	IP 65 with flat-gasket for panel connector
Contacts	12 to 55 contacts Ø 1 mm, crimp or solder removable contacts
Max. current	7A Ø 1 mm
Mechanical performance	< 1000 locking and mating cycles, vibration: 10 g, 500Hz (NF-C 20706[CEI68-2-6])
Contact resistance between pin and socket	< 0,0020 Ω
Breakdown voltage between adjacent contacts	at 20 °C, at sea-level: 19 or 37 contacts >2000 Volts (RMS), 12, 27 or 55 contacts >2500 Volts (RMS)
Insulation resistance	> 5000 MΩ
Operating temperature	-40 °C to +100 °C (500 hours at +125 °C)
Materials	Nickel-plated light alloy, gold-plated brass contacts, neoprene insert
Max. conductor cross-section	0,93 mm² for 12–27 or 55 contacts 0,60 mm² for 19 or 37 contacts

Dimensional Data

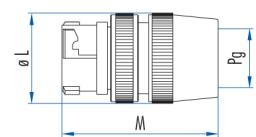
Panel connector



Cable connector

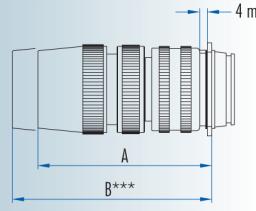


Coupler connector



Housing	Number of Contacts	Assembly	Panel connector										Cable connector and Coupler connector		
			A	B	Ø C	D	E	F	G	Ø H	Ø J	K	Ø L	PG	M
1	12-19	53,5	70	21	20,5	1,5	11,5	27	3,2	28	42	26	11	52	
2	27-37	63,5	82,5	27	20,5	1,5	11,5	32	3,2	34	59,5	34	16	55	
3	55	72,5	100	39	23	2	11,5	43	4,2	48	68,5	44	21	59	

Cable connector – Panel connector assembly



*** B: minimum disconnection distance

Part Number

Housing	1	1	2	2	3
Number of Contacts ø 1 mm	12	19	27	37	55

Male panel connectors – Female cable connectors – Male coupler connectors

Square male panel connector	#533 503 006	#533 514 006	#533 513 006	#533 525 006	#533 523 006
Female cable connector	637 612 006	637 619 006	637 627 006	637 637 006	637 655 006
Male coupler connector	637 762 006	637 769 006	637 777 006	637 787 006	637 795 006
PG	PG 11	PG 11	PG 16	PG 16	PG 21
Cable clamps	633 421 006	633 421 006	633 422 006	633 422 006	633 423 006
L Capacity of the cable clamp in mm	ø 7 – 12	ø 7 – 12	ø 9 – 17	ø 9 – 17	ø 12,5 – 23
Protective cap for panel connector	630 720 006	630 720 006	536 845 006	536 845 006	536 846 006
Protective cap for cable connector	632 725 006	632 725 006	632 726 006	632 726 006	632 728 006
Flat-Gasket for panel connector (pack of 10)	536 945 006	536 945 006	536 946 006	536 946 006	536 947 006

Complete crimp tool: 579 316 006 (small crimp: ø 1 mm), 579 481 006 (large crimp: ø 1 mm, ø 1,6 mm, ø 2,4 mm)

Tool for insertion and removing contacts 597 104 006

Female panel connectors – Male cable connectors – Female coupler connectors

Square female panel connector	#533 502 006	#533 515 006	#533 512 006	#533 524 006	#533 522 006
Male cable connector	637 712 006	637 719 006	637 727 006	637 737 006	637 755 006
Female coupler connector	637 662 006	637 669 006	637 677 006	637 687 006	637 695 006
PG	PG 11	PG 11	PG 16	PG 16	PG 21
Cable clamps	633 421 006	633 421 006	633 422 006	633 422 006	633 423 006
L Capacity of the cable clamp in mm	ø 7 – 12	ø 7 – 12	ø 9 – 17	ø 9 – 17	ø 12,5 – 23
Protective cap for panel connector	630 720 006	630 720 006	536 845 006	536 845 006	536 846 006
Protective cap for cable connector	632 725 006	632 725 006	632 726 006	632 726 006	632 728 006
Flat-Gasket for panel connector (pack of 10)	536 945 006	536 945 006	536 946 006	536 946 006	536 947 006

Complete crimp tool: 579 316 006 (small crimp: ø 1 mm), 579 481 006 (large crimp: ø 1 mm, ø 1,6 mm, ø 2,4 mm)

Tool for insertion and removing contacts 597 104 006

- Moulded watertight rubber boots for cables are delivered with the connectors. They must be mounted in the cable connectors or coupler connector.

- Boots for wire-to-wire cables and assemblies are available on request.

- # Square panel connectors are also of the „Miniature“ type. See page 52.

- Other sizes of PG available. Consult us.

- **Important:** All the contacts must be mounted in the insert using our tool.

- For assembly, wiring, panel connector installation and contact arrangement instructions, see: Technical guides;

- Other accessories, see: Accessories.

- Polarisation: Polarisation systems are available to prevent incorrect connection between identical connectors (same series and same contact arrangement). See: Technical guides;

- All connectors are delivered with their contacts.

- Thermocouple contacts can be fitted. See: Accessories.

Miniature Series – Miniature with ground contact

Technical Data

RoHS

Panel connector, cable connector
and coupler connector

Panel connector



Cable connector



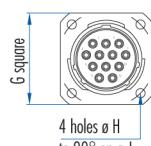
Coupler connector



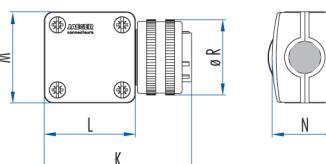
Locking	screw up the knurled ring on the cable connector 1/6 of a turn on the panel connector barrel, for frequent locking and unlocking
Protection	IP 50 to IP 54 with conexil in the housing, flat-gasket for panel connector
Contacts	12 to 55 contacts Ø 1 mm, crimp or solder removable contacts
Max. current	7 A Ø 1 mm
Mechanical performance	1000 locking and mating cycles
Contact resistance between pin and socket	< 0,0020 Ω
Breakdown voltage between adjacent contacts	at 20 °C, at sea-level: 19 or 37 contacts >2000 Volts (RMS), 12, 27 or 55 contacts >2500 Volts (RMS)
Insulation resistance	> 5000 MΩ
Operating temperature	-40 °C to +100 °C (500 hours at +125 °C)
Materials	Nickel-plated light alloy, gold-plated brass contacts, neoprene insert
Max. conductor cross-section	0,93 mm² for 12–27 or 55 contacts 0,60 mm² for 19 or 37 contacts

Dimensional Data

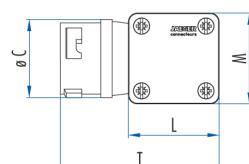
Panel connector



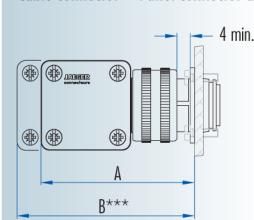
Cable connector



Coupler connector



Cable connector – Panel connector assembly



Housing	Number of Contacts	Assembly		Panel connector								Cable connector and Coupler connector				
		A	B	Ø C	D	E	F	G	Ø H	Ø J	K	M	N	L	Ø R	T
1	12-19	54	63	21	20,5	1,5	11,5	27	3,2	28	50	32,2	32,2	20,2	25	50,3
2	27-37	58	67	27	20,5	1,5	11,5	32	3,2	34	54	36,4	36,4	23,5	32,5	54,2
3	55	66	75	39	23	2	11,5	43	4,2	48	61	42,6	47,6	31,3	44	62,1

*** B: minimum disconnection distance

Part Number

Housing	1	1	2	2	3
Number of Contacts ø 1 mm	12	19	27	37	55

Male panel connectors – Female cable connectors – Male coupler connectors

Square male panel connector	◊533 503 506	◊533 514 506	◊533 513 506	◊533 525 506	◊533 523 506
Female cable connector	530 502 506	530 504 506	530 512 506	530 520 506	530 522 506
Male coupler connector	530 507 506	530 514 506	530 517 506	530 525 506	530 527 506
Type 2 cable clamp	532 328 006	532 328 006	532 329 006	532 329 006	532 350 006
Housing for panel connector	533 550 006	533 550 006	533 558 006	533 558 006	533 559 006
Protective cap for panel connector	630 720 006	630 720 006	536 845 006	536 845 006	536 846 006
Protective cap for cable connector	632 720 006	632 720 006	532 214 006	532 214 006	532 218 006
Flat-Gasket for panel connector (pack of 10)	536 945 006	536 945 006	536 946 006	536 946 006	536 947 006

Complete crimp tool: 579 316 006 (small crimp: ø 1 mm), 579 481 006 (large crimp: ø 1 mm, ø 1,6 mm, ø 2,4 mm)

Tool for insertion and removing contacts 597 104 006

Female panel connectors – Male cable connectors – Female coupler connectors

Square female panel connector	◊533 502 506	◊533 515 506	◊533 512 506	◊533 524 506	◊533 522 506
Male cable connector	530 503 506	530 505 506	530 513 506	530 521 506	530 523 506
Female coupler connector	530 506 506	530 515 506	530 516 506	530 524 506	530 526 506
Type 2 cable clamp	532 328 006	532 328 006	532 329 006	532 329 006	532 350 006
Housing for panel connector	533 550 006	533 550 006	533 558 006	533 558 006	533 559 006
Protective cap for panel connector	630 720 006	630 720 006	536 845 006	536 845 006	536 846 006
Protective cap for cable connector	632 720 006	632 720 006	532 214 006	532 214 006	532 218 006
Flat-Gasket for panel connector (pack of 10)	536 945 006	536 945 006	536 946 006	536 946 006	536 947 006

Complete crimp tool: 579 316 006 (small crimp: ø 1 mm), 579 481 006 (large crimp: ø 1 mm, ø 1,6 mm, ø 2,4 mm)

Tool for insertion and removing contacts 597 104 006

- ◊ Square panel connectors are generally of the „Waterproof Miniature“ type. See page 58.

- Sealable tamper-evident connectors for housings 1 and 2. See: Accessories.

 - **Important:** All the contacts must be mounted in the insert using our tool.

- For assembly, wiring, panel connector installation and contact arrangement instructions, see: Technical guides;

- Other accessories, see: Accessories.

- Polarisation: Polarisation systems are available to prevent incorrect connection between identical connectors (same series and same contact arrangement). See: Technical guides;

- All connectors are delivered with their contacts.

Miniature Series – Waterproof Miniature with ground contact

Technical Data

RoHS

Panel connector, cable connector
and coupler connector

Panel connector



Cable connector



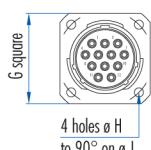
Coupler connector



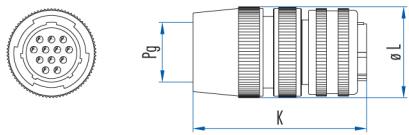
Locking	screw up the knurled ring on the cable connector 1/6 of a turn on the panel connector barrel, for frequent locking and unlocking
Protection	IP 65 with flat-gasket for panel connector
Contacts	12 to 55 contacts Ø 1 mm, crimp or solder removable contacts
Max. current	7 A Ø 1 mm
Mechanical performance	1000 locking and mating cycles
Contact resistance between pin and socket	< 0,0020 Ω
Breakdown voltage between adjacent contacts	at 20 °C, at sea-level: 19 or 37 contacts >2000 Volts (RMS), 12, 27 or 55 contacts >2500 Volts (RMS)
Insulation resistance	> 5000 MΩ
Operating temperature	-40 °C to +100 °C (500 hours at +125 °C)
Materials	Nickel-plated light alloy, gold-plated brass contacts, neoprene insert
Max. conductor cross-section	0,93 mm² for 12–27 or 55 contacts 0,60 mm² for 19 or 37 contacts

Dimensional Data

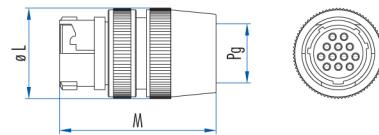
Panel connector



Cable connector

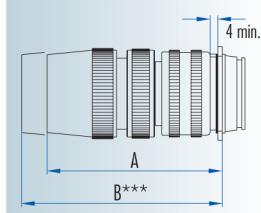


Coupler connector



Housing	Number of Contacts	Assembly	Panel connector										Cable connector and Coupler connector		
			A	B	Ø C	D	E	F	G	Ø H	Ø J	K	L	PG	M
1	12-19	53,5	70	21	20,5	1,5	11,5	27	3,2	28	42	26	11	52	
2	27-37	63,5	82,5	27	20,5	1,5	11,5	32	3,2	34	59,5	34	16	55	
3	55	72,5	100	39	23	2	11,5	43	4,2	48	68,5	44	21	59	

Cable connector – Panel connector assembly



*** B: minimum disconnection distance

Miniature Series – Waterproof Miniature with ground contact

Part Number

Housing	1	1	2	2	3
Number of Contacts ø 1 mm	12	19	27	37	55

Male panel connectors – Female cable connectors – Male coupler connectors

Square male panel connector	◊533 503 506	◊533 514 506	◊533 513 506	◊533 525 506	◊533 523 506
Female cable connector	637 612 506	637 619 506	637 627 506	637 637 506	637 655 506
Male coupler connector	637 762 506	637 769 506	637 777 506	637 787 506	637 795 506
PG	PG 11	PG 11	PG 16	PG 16	PG 21
Cable clamps	633 421 006	633 421 006	633 422 006	633 422 006	633 423 006
L Capacity of the cable clamp in mm	ø 7 – 12	ø 7 – 12	ø 9 – 17	ø 9 – 17	ø 12,5 – 23
Protective cap for panel connector	630 720 006	630 720 006	536 845 006	536 845 006	536 846 006
Protective cap for cable connector	632 725 006	632 725 006	632 726 006	632 726 006	632 728 006
Flat-Gasket for panel connector (pack of 10)	536 945 006	536 945 006	536 946 006	536 946 006	536 947 006

Complete crimp tool: 579 316 006 (small crimp: ø 1 mm), 579 481 006 (large crimp: ø 1 mm, ø 1,6 mm, ø 2,4 mm)

Tool for insertion and removing contacts 597 104 006

Female panel connectors – Male cable connectors – Female coupler connectors

Square female panel connector	◊533 502 506	◊533 515 506	◊533 512 506	◊533 524 506	◊533 522 506
Male cable connector	637 712 506	637 719 506	637 727 506	637 737 506	637 755 506
Female coupler connector	637 662 506	637 669 506	637 677 506	637 687 506	637 695 506
PG	PG 11	PG 11	PG 16	PG 16	PG 21
Cable clamps	633 421 006	633 421 006	633 422 006	633 422 006	633 423 006
L Capacity of the cable clamp in mm	ø 7 – 12	ø 7 – 12	ø 9 – 17	ø 9 – 17	ø 12,5 – 23
Protective cap for panel connector	630 720 006	630 720 006	536 845 006	536 845 006	536 846 006
Protective cap for cable connector	632 725 006	632 725 006	632 726 006	632 726 006	632 728 006
Flat-Gasket for panel connector (pack of 10)	536 945 006	536 945 006	536 946 006	536 946 006	536 947 006

Complete crimp tool: 579 316 006 (small crimp: ø 1 mm), 579 481 006 (large crimp: ø 1 mm, ø 1,6 mm, ø 2,4 mm)

Tool for insertion and removing contacts 597 104 006

- ◊ Square panel connectors are generally of the „Miniature with ground contact“ type. See page 56.

- Moulded watertight rubber boots for cables are delivered with the connectors. They must be mounted in the cable connectors or coupler connectors.

- Boots for wire-to-wire cables and assemblies are available on request.

- **Important:** All the contacts must be mounted in the insert using our tool.

- For assembly, wiring, panel connector installation and contact arrangement instructions, see: Technical guides;

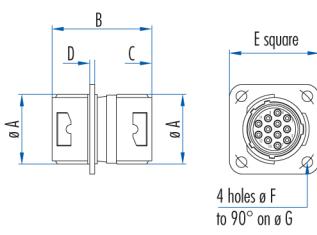
- Other accessories, see: Accessories.

- Polarisation: Polarisation systems are available to prevent incorrect connection between identical connectors (same series and same contact arrangement). See: Technical guides;

- All connectors are delivered with their contacts.

Miniature Series – Miniature with bulkhead connector

Technical Data		Miniature Series	Waterproof Miniature Series
RoHS	Bulkhead connector		
Bulkhead connector	male / female contacts		
Cable connector		rectangular housing	circular housing
Locking		screw up the knurled ring on the cable connector 1/6 of a turn on the panel connector barrel, for frequent locking and unlocking	
Protection	Depending on the associated cable connector	IP 50 to IP 54 with elastomer in the housing and flat-gasket for panel connector	IP 65 with flat-gasket for panel connector
Contacts	12 to 37 contacts ø 1 mm, removable contacts	12 to 37 contacts ø 1 mm, crimp or solder removable contacts	
Max. current	7 A ø 1 mm		
Mechanical performance	1000 locking and mating cycles		
Contact resistance between pin and socket	< 0,0020 Ω		
Breakdown voltage	at 20 °C, at sea-level: 19 or 37 contacts >2000 Volts (RMS), 12, 27 or 55 contacts >2500 Volts (RMS)		
Insulation resistance	> 5000 MΩ		
Operating temperature		-40 °C to +100 °C (500 hours at +125 °C)	
Materials		Nickel-plated light alloy, gold-plated brass contacts, neoprene insert	
Max. conductor cross-section		0,93 mm² for 12–27 or 55 contacts 0,60 mm² for 19 or 37 contacts	

Dimensional Data									
Bulkhead connector									
									
4 holes ø F to 90° on ø G									
Housing	Number of Contacts	Dimensions in mm		Weight in grams					
1	12-19	ø A	B	C	D	E	ø F	ø G	140
2	27-37	27	30	1,5	11,5	32	3,2	34	203

Miniature Series – Miniature with bulkhead connector

Part Number	1	1	2	2
Housing				
Number of Contacts ø 1 mm	12	19	27	37
Bulkhead connector				
Bulkhead connector	632 112 006	632 119 006	632 127 006	632 137 006
Protective cap	630 720 006	630 720 006	536 845 006	536 845 006
Flat-Gasket for panel connector (pack of 10)	536 945 006	536 945 006	536 946 006	536 946 006
The electrical connection is made using a cable connector from our „Miniature“ or „Waterproof Miniature“ Series. Select the most appropriate type of cable connector.				
Miniature Series – Female cable connectors – Male cable connectors (see page 48)				
Male cable connector	530 503 006	530 505 006	530 513 006	530 521 006
Female cable connector	530 502 006	530 504 006	530 512 006	530 520 006
Type 3 cable clamp	630 135 006	630 135 006	630 138 006	630 138 006
Protective cap for cable connector	632 720 006	632 720 006	532 214 006	532 214 006
Complete crimp tool: 579 316 006 (small crimp: ø 1 mm), 579 481 006 (large crimp: ø 1 mm, ø 1,6 mm, ø 2,4 mm)				
Tool for insertion and removing contacts 597 104 006				
Waterproof Miniature Series – Female cable connectors – Male cable connectors (see page 50)				
Male cable connector	637 712 006	637 719 006	637 727 006	637 737 006
Female cable connector	637 612 006	637 619 006	637 627 006	637 637 006
Cable clamps	633 421 006	633 421 006	633 422 006	633 422 006
Protective cap for cable connector	632 725 006	632 725 006	632 726 006	632 726 006
Complete crimp tool: 579 316 006 (small crimp: ø 1 mm), 579 481 006 (large crimp: ø 1 mm, ø 1,6 mm, ø 2,4 mm)				
Tool for insertion and removing contacts 597 104 006				
<ul style="list-style-type: none"> - The bulkhead connector fitted with male / female contacts allows the installation of a leadthrough which can be disconnected on either side of the partition. - Important: All the contacts must be mounted in the insert using our tool. - For assembly, wiring, panel connector installation and contact arrangement instructions, see: Technical guides; - Other accessories, see: Accessories. - All connectors are delivered with their contacts. 				

Connectors with non-removable contacts

Connectors with removable contacts

Accessories

Technical guides