

**INTE AUTO**  
PRODUCT CATALOGUE  
Unipole & Multipole Connectors



# 1. INTE-AUTO Company Introduction



INTE-AUTO, registered in 2013, is a company based in Shenzhen China engaged in the design, research, and manufacture of precision push pull connectors, waterproof connectors, coaxial connectors, D-tap connectors, watertight aviation connector, custom cable assemblies and over molded cable assembly.

Our mission goes beyond supplying connectors. The ultimate goal is to consistently provide top-notch, secure, cost-effective, durable products, one-stop shop connectors and customized service for our esteemed clients worldwide.

Our high-quality connectors feature the reliable push pull self-latching connection system and are designed to endure the most extreme environments. These connectors are widely used in a large variety of applications such as for medical, testing, measurement, military, sensor, NDT, and other machines and equipment.

INTE-AUTO has over 10,000 products, all of which are manufactured under the strictest quality standards. Our connectors are fully compatible with the push pull connectors of other top brands, and commit to the Quality Management System.

Our facilities span over 5000 square meters, containing 23 production lines with 25 CNC working machines. Our mechanized work system improves efficiency, guarantees high quality, and controls production costs to comply with military and medical standards.

INTE-AUTO is RoHS, CE, ISO9001, and TUV certified. We are actively shaping the future of our company with creativity, imagination, and innovation to continually exceed the expectations of all our valued customers around the world.

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## 2. INT-B Series Push Pull Connectors

Plug: Straight Plug



Right Angle Plug



Receptacle: Fixed Panel Mount Receptacle



Vacuum-tight Receptacle



Cable Mount Receptacle



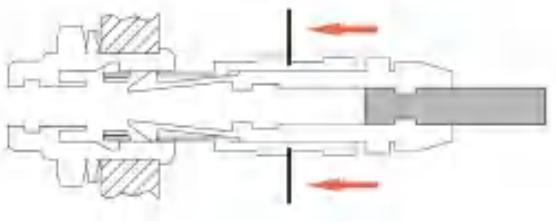
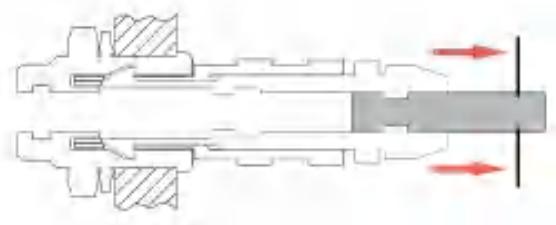
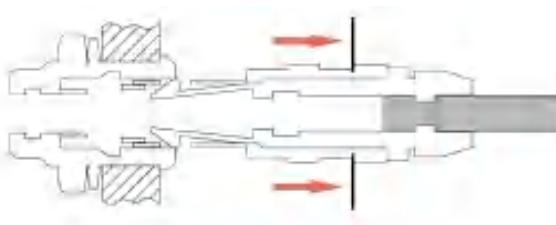
Elbow Receptacle



## 2. INT-B Series Push Pull Connectors

### Push-Pull Self-Latching Connection System



Drawing	Specification
	<p><b>Engaging</b> The self-latching system allows the connector to be mated by simply pushing the plug into the receptacle.</p>
	<p><b>Latched</b> Once firmly latched, the connection cannot be broken by pulling on the cable or any other component part other than the outer release sleeve.</p>
	<p><b>Disengaging</b> When required, the connector is disengaged by a single axial pull on the outer release sleeve. This first disengages the latches and then withdraws the plug from the socket.</p>

## 2. INT-B Series Push Pull Connectors

### B Series Connectors with the Following Main Features

1. Secure push-pull self-latching system design
2. Multiple key options for aligned and blind mating
3. Keying system available ( $\alpha=0/30/45/60/80/145/155$ )
4. 360° screening for full EMC shielding
5. Multipole types 2 to 32 contacts
6. Supply size 00B, 0B, 1B, 2B, 3B, 4B series
7. Solder contact, PCB contacts (straight or elbow)
8. Crimp contact can be customized
9. High-density configurations for blind mating even in tight spaces
10. Available customized cable assembly solution

### Technical Characteristics

#### Mechanical and Climatical

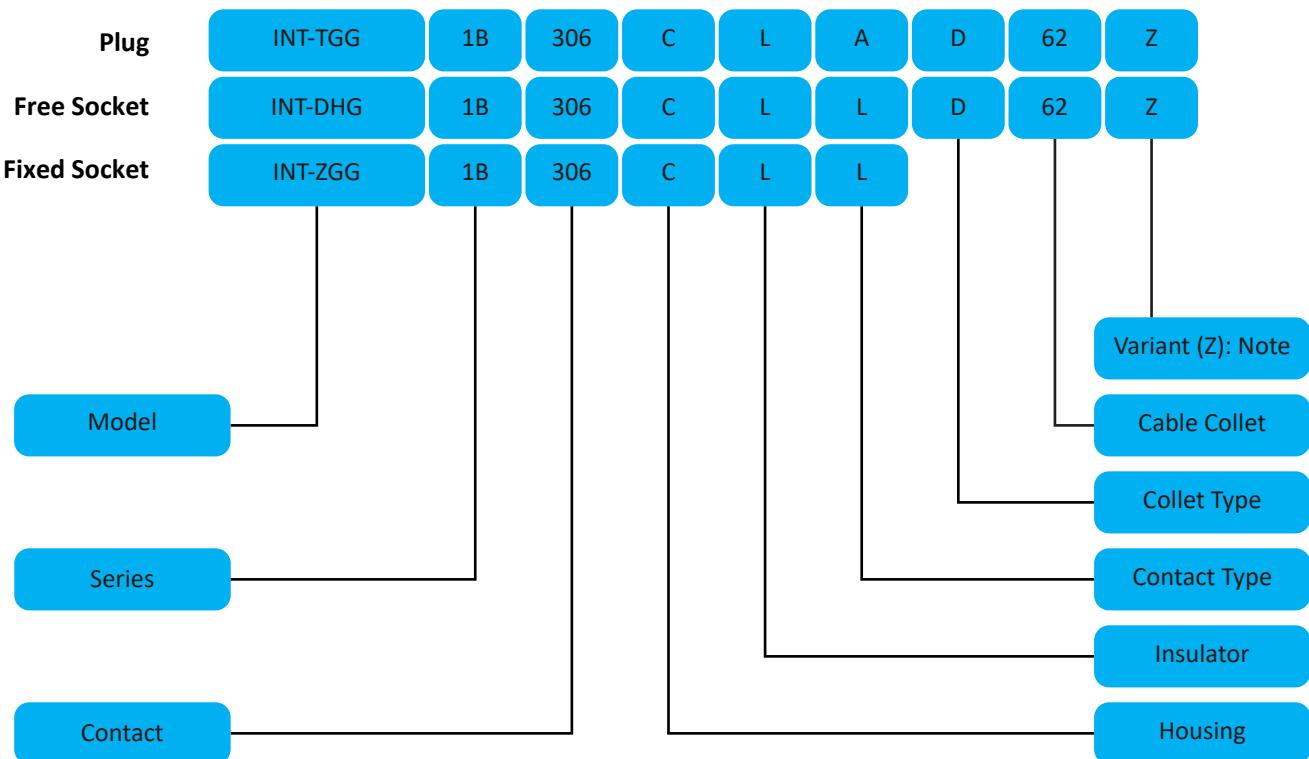
Characteristics	Value	Standard
Endurance	>6000 cycles	IEC 60512-5 test 9a
Humidity	Up to 95% at 60°C	
Temperature Range	-40°C, +250°C	
Resistance to Vibration	10-2000Hz, 15g	IEC 60512-4 test 6d
Shock Resistance	100g, 6ms	IEC 60512-4 test 6c
Salt Spray Corrosion Test	>144h	IEC 60512-6 test 11f
Protection Index (mated)	IP 50	IEC 60529

#### Electrical

Characteristics	Value	Standard
Shielding Efficiency	at 10 MHZ	>75 dB
	at 1 GHZ	>40 dB

## 2. INT-B Series Push Pull Connectors

### Part Numbering System



INT-TGG.1B.306.CLAD62 = 1B 6 pins straight plug, G key (alpha=0), pearl chrome plated brass housing, PPS insulator, male soldering contact type, 6.0 mm cable collet, nut for fitting bend relief

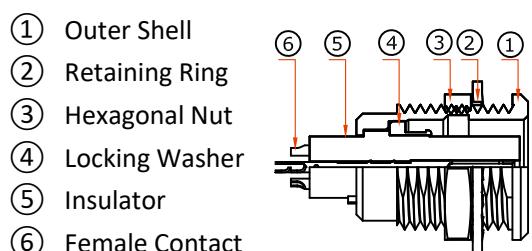
INT-DHG.1B.306.CLLD62Z = 1B 6 pins free receptacle, G key (alpha=0), pearl chrome plated brass housing, PPS insulator, female soldering contact type, 6.0 mm cable collet, nut for fitting bend relief

INT-ZGG.1B.306.CLL = 1B 6 pins panel mounted socket, G key (alpha=0), pearl chrome plated brass housing, PPS insulator, female soldering contact type, nut fixed.

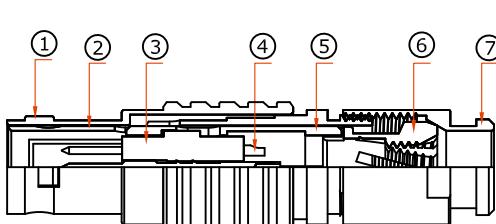
\*NOTE: To order a model with cable collet and nut for fitting a bend relief, a letter "Z" is in the variant position.

### Part Section Showing Internal Components

#### Fixed Receptacle



#### Straight Plug



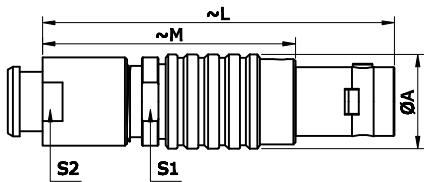
- (1) Outer Shell
- (2) Latch Sleeve
- (3) Insulator
- (4) Male Contact
- (5) Split Insert Carrier
- (6) Collet
- (7) Collet Nut

## 2. INT-B Series Push Pull Connectors

### Product Size

#### INT-TGG(Z)

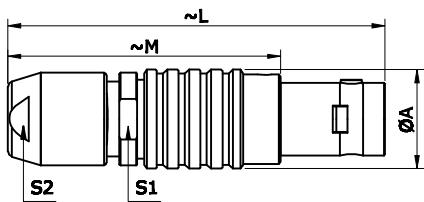
Cable mount straight plug, key (G) or keys (A...M), cable collet and nut for fitting a bend relief



Reference		Dimensions (mm)				
Model	Series	A	L	M	S1	S2
INT-TGG(Z)	00	6.4	28.5	20	5.5	6.0
INT-TGG(Z)	0B	9.5	35.0	25.0	8.0	8.0
INT-TGG(Z)	1B	12.0	42.0	31.0	10.0	9.0
INT-TGG(Z)	2B	15.0	49.0	37.0	13.0	12.0
INT-TGG(Z)	3B	18.0	58.5	43.5	15.0	15.0

#### INT-TGG

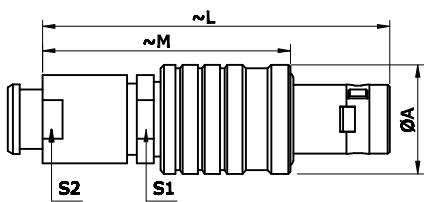
Cable mount straight plug, key (G) or keys (A...M), cable collet



Reference		Dimensions (mm)				
Model	Series	A	L	M	S1	S2
INT-TGG	00	6.4	28.5	20.5	5.5	5.0
INT-TGG	0B	9.5	36.0	26.0	8.0	7.0
INT-TGG	1B	12.0	43.0	32.0	10.0	9.0
INT-TGG	2B	15.0	50.0	38.0	13.0	12.0
INT-TGG	3B	18.0	58.0	43.0	15.0	14.0

#### INT-TEG

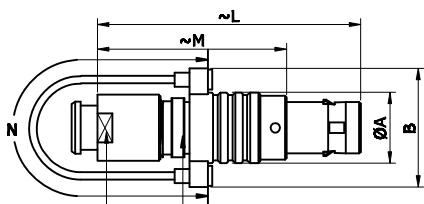
Cable mount straight plug, front sealed, key (G) or keys (A...M), cable collet and nut for fitting a bend relief



Reference		Dimensions (mm)				
Model	Series	A	L	M	S1	S2
INT-TEG	0B	11.0	35.0	20.0	8.0	8.0
INT-TEG	1B	13.5	42.0	33.0	10.0	9.0
INT-TEG	2B	16.5	48.0	36.0	13.0	12.0
INT-TEG	3B	19.0	56.0	41.5	15.0	15.0

#### INT-TNG

Cable mount straight plug, key (G) or keys (A...M), cable collet and lanyard release

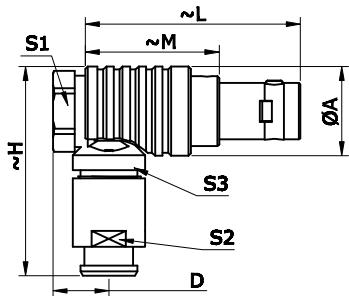


Reference		Dimensions (mm)						
Model	Series	A	B	L	M	N	S1	S2
INT-TNG	0B	9.5	15.95	34.62	24.3	140	8.0	8.0
INT-TNG	1B	12.0	18.0	43.0	32.0	140	10.0	9.0
INT-TNG	2B	15.0	21.0	49.0	37.0	160	13.0	12.0
INT-TNG	3B	18.0	25.0	58.0	43.0	190	15.0	14.0

## 2. INT-B Series Push Pull Connectors

### INT-THG

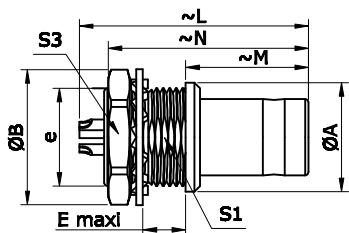
Cable mounted elbow plug, 90°, key (G) or keys (A...M), cable collect



Reference		Dimensions (mm)							
Model	Series	A	D	H	L	M	S1	S2	S3
INT-THG	0B	11.0	6.5	23.5	26.5	16.5	10.0	7.0	8.0
INT-THG	1B	13.5	8.0	30.5	36.0	25.0	11.0	9.0	10.0
INT-THG	2B	16.5	9.0	40.0	37.7	25.6	14.0	12.0	13.0
INT-THG	3B	19.0	10.0	37.0	50.0	35.0	17.0	14.0	14.0

### INT-TAG

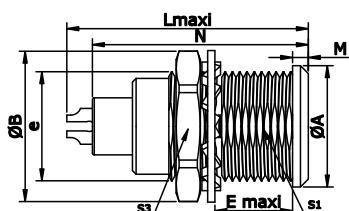
Panel mount fixed plug, non-latching, nut fixing, key (G) or keys (A...M)



Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N	S1	S3
INT-TAG	0B	10.0	12.4	M9*0.6	4.2	20.8	11.5	18.9	8.2	11.0
INT-TAG	1B	14.0	15.8	M12*1.0	5.4	25.2	12.5	21.6	10.5	14.0
INT-TAG	2B	18.0	19.2	M15*1.0	6.0	28.7	13.8	23.9	13.5	17.0
INT-TAG	3B	22.0	25.0	M18*1.0	5.8	32.1	17.0	30.2	16.5	22.0

### INT-ZGG

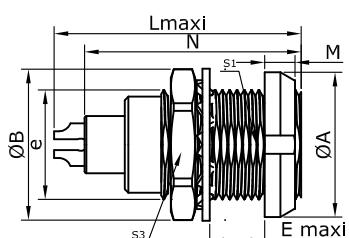
Panel mount fixed receptacle, nut fixing, key (G) or keys (A...M)



Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N	S1	S3
INT-ZGG	00B	8.0	10.2	M7*0.5	6.0	15.5	1.0	13.7	6.3	9.0
INT-ZGG	0B	10.0	12.4	M9*0.6	7.0	20.7	1.2	19.1	8.2	11.0
INT-ZGG	1B	14.0	15.8	M12*1.0	7.5	23.0	1.5	21.1	10.5	14.0
INT-ZGG	2B	18.0	19.2	M15*1.0	8.5	26.7	1.8	24.6	13.5	17.0
INT-ZGG	3B	21.8	25.0	M18*1.0	11.5	37.1	2.0	24.6	16.5	22.0

### INT-ZCG

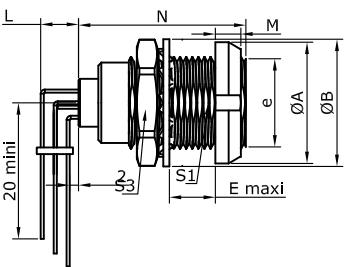
Panel mount receptacle with two screw nuts, key (G) or keys (A...M), back panel mounting



Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N	S1	S3
INT-ZCG	00B	10.0	10.2	M7*0.5	4.3	13.7	2.5	13.7	6.3	9.0
INT-ZCG	0B	12.0	12.4	M9*0.6	5.5	20.7	2.5	16.4	8.2	11.0
INT-ZCG	1B	16.0	15.8	M12*1.0	6.0	23.0	3.5	19.8	10.5	14.0
INT-ZCG	2B	20.0	19.2	M15*1.0	6.5	26.7	3.5	20.2	13.5	17.0
INT-ZCG	3B	24.0	25.0	M18*1.0	9.0	37.7	4.5	25.8	16.5	22.0

## 2. INT-B Series Push Pull Connectors

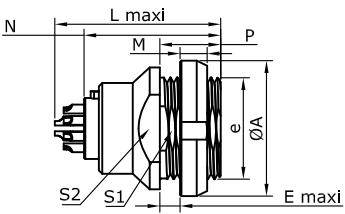
**INT-ZCG.CLV**



Panel mount fixed receptacle with two screw nuts, key (G) or keys (A...M), elbow 90°contact for printed circuit

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	M	N	S1	S3	
INT-ZCG.CLV	0B	12.0	12.4	M9*0.6	5.5	2.5	18.3	8.2	11.0	
INT-ZCG.CLV	1B	16.0	15.8	M12*1.0	6.0	3.5	20.3	10.5	14.0	
INT-ZCG.CLV	2B	20.0	19.2	M15*1.0	6.5	3.5	22.3	13.5	17.0	
INT-ZCG.CLV	3B	24.0	25.0	M18*1.0	9.0	4.5	25.8	16.5	22.0	

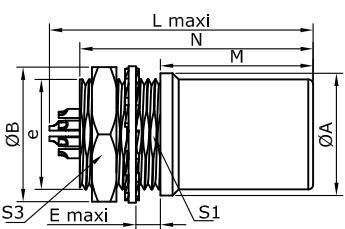
**INT-ZEG**



Panel mount fixed receptacle, nut fixing, key (G) or keys (A...M), back panel mounting

Reference		Dimensions (mm)									
Model	Series	A	B	e	E	L	M	N	P	S1	S3
INT-ZEG	00B	10.0	9.5	M7*0.5	2.3	15.5	2.5	13.7	6.0	6.3	7.5
INT-ZEG	0B	12.0	12.5	M9*0.6	2.4	20.7	2.5	19.1	6.3	8.2	9.0
INT-ZEG	1B	16.0	16.0	M12*1.0	6.5	23.0	3.5	21.1	11.0	10.5	13.0
INT-ZEG	2B	20.0	20.0	M15*1.0	3.0	26.7	3.5	24.6	9.0	13.5	15.0

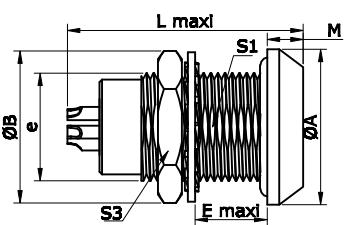
**INT-ZHG**



Panel mount fixed receptacle, nut fixing, key (G) or keys (A...M) and protruding shell

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N	S1	S3
INT-ZHG	0B	10.0	12.4	M9 *0.6	2.0	19.5	12.5	19.1	8.2	11.0
INT-ZHG	1B	14.0	15.8	M12*1.0	4.0	21.7	12.0	21.1	10.5	14.0
INT-ZHG	2B	18.0	19.2	M15*1.0	5.1	22.7	12.5	24.6	13.5	17.0

**INT-MGG**

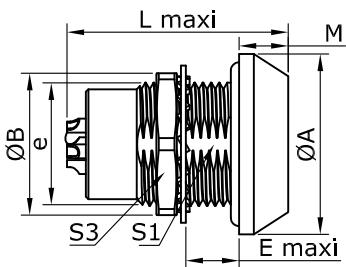


Panel mount sealed fixed receptacle, nut fixing, key (G) or keys (A...M)

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	S1	S3	
INT-MGG	0B	13.0	12.4	M9 *0.6	7.0	21.5	3.0	8.2	11.0	
INT-MGG	1B	18.0	15.8	M12*1.0	7.0	26.6	4.5	10.5	14.0	
INT-MGG	2B	20.0	19.2	M15*1.0	8.0	31.6	4.0	13.5	17.0	

## 2. INT-B Series Push Pull Connectors

**INT-MHG**

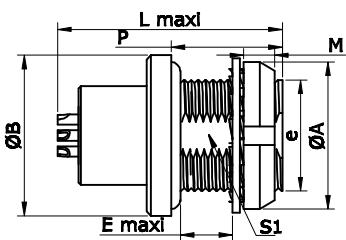


Panel mounted sealed fixed receptacle, nut fixing, key (G) or keys (A...M)



Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	S1	S3	
INT-MHG		13.0	12.4	M9 *0.6	7.0	23.2	4.8	8.2	11.0	
INT-MHG		18.0	15.8	M12*1.0	7.0	30.3	5.2	10.5	14.0	
INT-MHG		20.0	19.2	M15*1.0	8.0	35.6	6.0	13.5	17.0	

**INT-MEG**

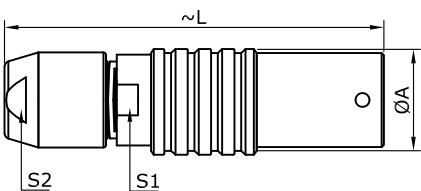


Panel mounted sealed fixed receptacle, nut fixing, key (G) or keys (A...M), back panel mounting



Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	P	S1	S3
INT-MEG		12.0	13.0	M9 *0.6	2.5	20.2	2.5	9.0	8.2	-
INT-MEG		16.0	18.0	M12*1.0	5.5	26.6	3.5	11.0	10.5	-
INT-MEG		20.0	20.0	M15*1.0	6.5	31.6	3.5	9.6	13.5	15.0

**INT-DHG**

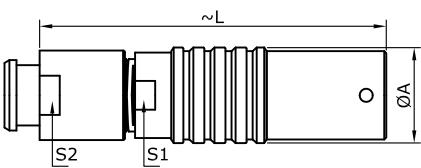


Cable mount receptacle, key (G) or keys (A...M), cable collet



Reference		Dimensions (mm)			
Model	Series	A	L	S1	S2
INT-DHG	0B	9.5	35.5	8.0	7.0
INT-DHG	1B	12.5	40.5	10.0	9.0
INT-DHG	2B	16.5	47.0	13.0	12.0
INT-DHG	3B	19.0	56.0	15.0	14.0

**INT-DHG(Z)**



Cable mount receptacle, key (G) or keys (A...M), cable collet and nut for fitting a bend relief

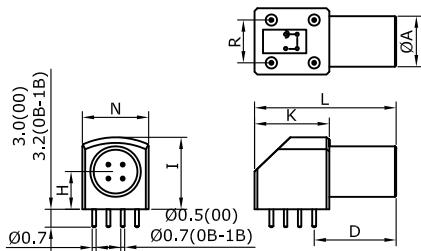


Reference		Dimensions (mm)			
Model	Series	A	L	S1	S2
INT-DHG(Z)	0B	9.5	35.5	8.0	8.0
INT-DHG(Z)	1B	12.5	40.5	10.0	9.0
INT-DHG(Z)	2B	16.5	47.0	13.0	12.0
INT-DHG(Z)	3B	19.0	56.0	15.0	14.0

## 2. INT-B Series Push Pull Connectors

**INT-ZPG**

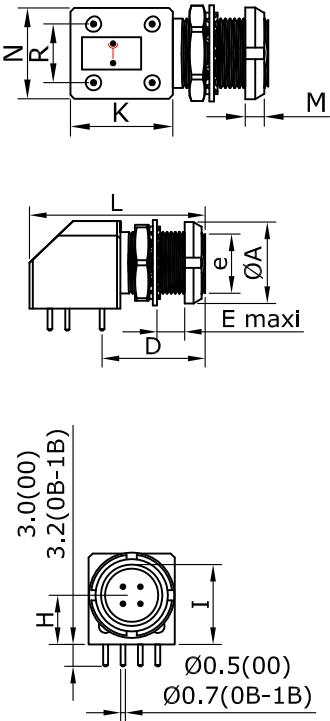
Elbow (90°) receptacle for printed circuit, key (G) or keys (A..F)  
(solder or screw fixing)



Reference	Dimensions (mm)							
	Model	A	D	H	I	K	L	N
INT-ZPG.0B.302.HLN	9.0	14.6	6.7	12.6	13.3	25.0	11.7	7.62
INT-ZPG.0B.303.HLN								
INT-ZPG.0B.304.HLN								
INT-ZPG.0B.305.HLN								
INT-ZPG.0B.306.HLN								
INT-ZPG.0B.307.HLN								
INT-ZPG.1B.302.HLN	11.0	16.6	7.5	14.0	13.3	27.0	12.6	7.62
INT-ZPG.1B.303.HLN								
INT-ZPG.1B.304.HLN								
INT-ZPG.1B.305.HLN								
INT-ZPG.1B.306.HLN								
INT-ZPG.1B.307.HLN								
INT-ZPG.1B.308.HLN								
INT-ZPG.1B.310.HLN								

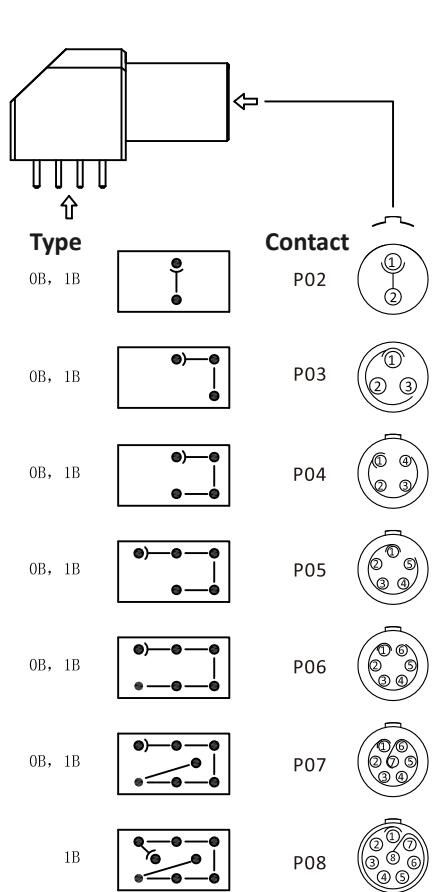
**INT-ZXG**

Elbow (90°) receptacle for printed circuit, key (G) or keys (A..F)  
(solder or screw fixing) back panel mounting



Reference	Dimensions (mm)												
	Model	A	B	D	e	E	H	I	K	L	M	N	R
INT-ZXG.0B.302.HLN	12.0	12.4	14.6	M9*0.6	6	6.7	12.6	13.3	25	2.5	11.7	7.62	11
INT-ZXG.0B.303.HLN													
INT-ZXG.0B.304.HLN													
INT-ZXG.0B.305.HLN													
INT-ZXG.0B.306.HLN													
INT-ZXG.0B.307.HLN													
INT-ZXG.1B.302.HLN	14	15	16.6	M11*0.5	7.5	7.5	14	13.3	27	3.5	12.6	7.62	13
INT-ZXG.1B.303.HLN													
INT-ZXG.1B.304.HLN													
INT-ZXG.1B.305.HLN													
INT-ZXG.1B.306.HLN													
INT-ZXG.1B.307.HLN													
INT-ZXG.1B.308.HLN													
INT-ZXG.1B.310.HLN													

## 2. INT-B Series Push Pull Connectors

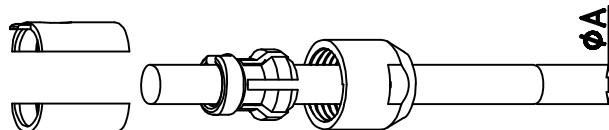


### Electrical

Model	Shell Size	Contact No.	Test voltage (contact-contact) K/V rms	Test voltage (contact-shell) K/V rms	Rated Current (A)
INT-ZPG-ZXG	0B	302	1.45	1.20	4.5
INT-ZPG-ZXG	0B	303	1.70	1.60	4.5
INT-ZPG-ZXG	0B	304	1.30	1.10	4.5
INT-ZPG-ZXG	0B	305	1.25	1.20	4.5
INT-ZPG-ZXG	0B	306	1.25	1.20	2.5
INT-ZPG-ZXG	0B	307	1.00	1.20	2.0
INT-ZPG-ZXG	1B	302	1.70	1.45	4.5
INT-ZPG-ZXG	1B	303	1.60	1.85	4.5
INT-ZPG-ZXG	1B	304	1.70	1.80	4.5
INT-ZPG-ZXG	1B	305	1.30	1.55	4.5
INT-ZPG-ZXG	1B	306	1.35	1.45	4.5
INT-ZPG-ZXG	1B	307	1.45	1.45	2.0
INT-ZPG-ZXG	1B	308	1.30	1.30	2.0
INT-ZPG-ZXG	1B	310	1.00	1.00	1.50

## 2. INT-B Series Push Pull Connectors

### Cable Collet Size



Cable Clamp Set		Cable Collet (mm)	Cable dia Range	
Type	Code	φA	Max	Min
00B-022	22	2.2	2.2	>1.4
00B-027	27	2.7	2.7	>2.2
00B-030	30	3.0	3.0	>2.5

Cable Clamp Set		Cable Collet (mm)	Cable dia Range	
Type	Code	φA	Max	Min
0B-021	21	2.1	2.2	>1.4
0B-032	32	3.2	3.2	>2.2
0B-042	42	4.2	4.2	>3.2
0B-052	52	5.2	5.2	>4.2
0B-056	56	5.6	5.6	>4.6

Cable Clamp Set		Cable Collet (mm)	Cable dia Range	
Type	Code	φA	Max	Min
1B-042	42	4.2	4.2	>3.2
1B-052	52	5.2	5.2	>4.2
1B-062	62	6.2	6.2	>5.2
1B-072	72	7.2	7.2	>6.2
1B-076	76	7.6	7.6	>6.5

Cable Clamp Set		Cable Collet (mm)	Cable dia Range	
Type	Code	φA	Max	Min
2B-042	42	4.2	4.2	>3.2
2B-052	52	5.2	5.2	>4.2
2B-062	62	6.2	6.2	>5.2
2B-072	72	7.2	7.2	>6.2
2B-082	82	8.2	8.2	>7.2
2B-092	92	9.2	9.2	>8.2
2B-099	99	9.9	9.9	>8.9

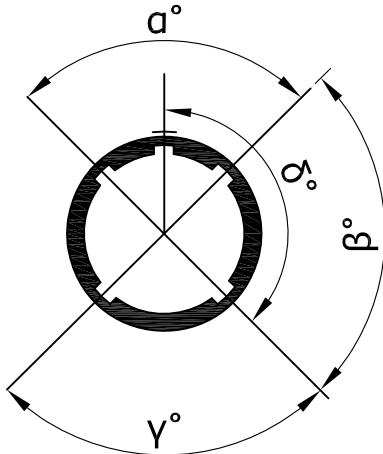
Cable Clamp Set		Cable Collet (mm)	Cable dia Range	
Type	Code	φA	Max	Min
3B-062	62	6.2	6.2	>4.9
3B-072	72	7.2	7.2	>6.2
3B-082	82	8.2	8.2	>7.1
3B-092	92	9.2	9.2	>7.7
3B-100	10	10.2	10.2	>9.2
3B-110	11	11.2	11.0	>10.2
3B-120	12	12.0	12	>11.1

## 2. INT-B Series Push Pull Connectors

### Alignment Key and Polarized Key

INT-B series connector model types are composed of six letters.  
The last letter indicated the key position and contact type (male or female).

Front View of Receptacle



Code	Keys No.	Angles	Series			Code	Keys No.	Angles	Series			Contact Type	
			00	0B	1B				2B	3B	Plug	Receptacle	
G	1		0°	0°	0°	G	1		0°	0°	Male	Female	
A	2	$\alpha$	30°	30°	30°	A	2	$\alpha$	30°	30°	Male	Female	
B	2		60°	60°	60°	B	2		45°	45°	Male	Female	
C	2		-	90°	90°	C	2		60°	60°	Male	Female	
D	2	$\beta$	-	135°	135°	D	2	$\gamma$	95°	95°	Male	Female	
E	2		-	145°	145°	E	2		120°	120°	Male	Female	
F	2		-	155°	155°	F	2		145°	145°	Male	Female	
J	2	$\gamma$	45°	45°	45°	J	2	$\alpha$	37.5°	37.5°	Female	Male	
K	2		-	70°	70°	K	2		52.5°	52.5°	Female	Male	
L	2		-	80°	80°	L	2	$\gamma$	70°	70°	Female	Male	
M	2	$\delta$	-	110°	-	M	2	$\delta$	-	-	Female	Male	

### 3. INT-K Series Waterproof Connectors

Plug: |



Receptacle: |



### 3. INT-K Series Waterproof Connectors

#### Push-Pull Self-Latching Connection System



Drawing	Specification
	<b>Engaging</b> The self-latching system allows the connector to be mated by simply pushing the plug into the receptacle.
	<b>Latched</b> Once firmly latched, the connection cannot be broken by pulling on the cable or any other component part other than the outer release sleeve.
	<b>Disengaging</b> When required, the connector is disengaged by a single axial pull on the outer release sleeve. This first disengages the latches and then withdraws the plug from the socket.

### 3. INT-K Series Waterproof Connectors

#### K Series Connectors with the Following Main Features

1. Security of the push-pull latching system
2. Watertight connection (IP 66~IP 68)
3. Multipole types 2 to 30 contacts
4. Solder, crimp or print (straight or elbow) contacts
5. Keying system («G» key standard) for connector alignment
6. Multiple key options to avoid cross mating of similar connectors
7. 360° screening for full EMC shielding
8. High packing density for space savings
9. Rugged housing for extreme working conditions
10. Available customized cable assembly solution

#### Technical Characteristics

##### Mechanical and Climatical

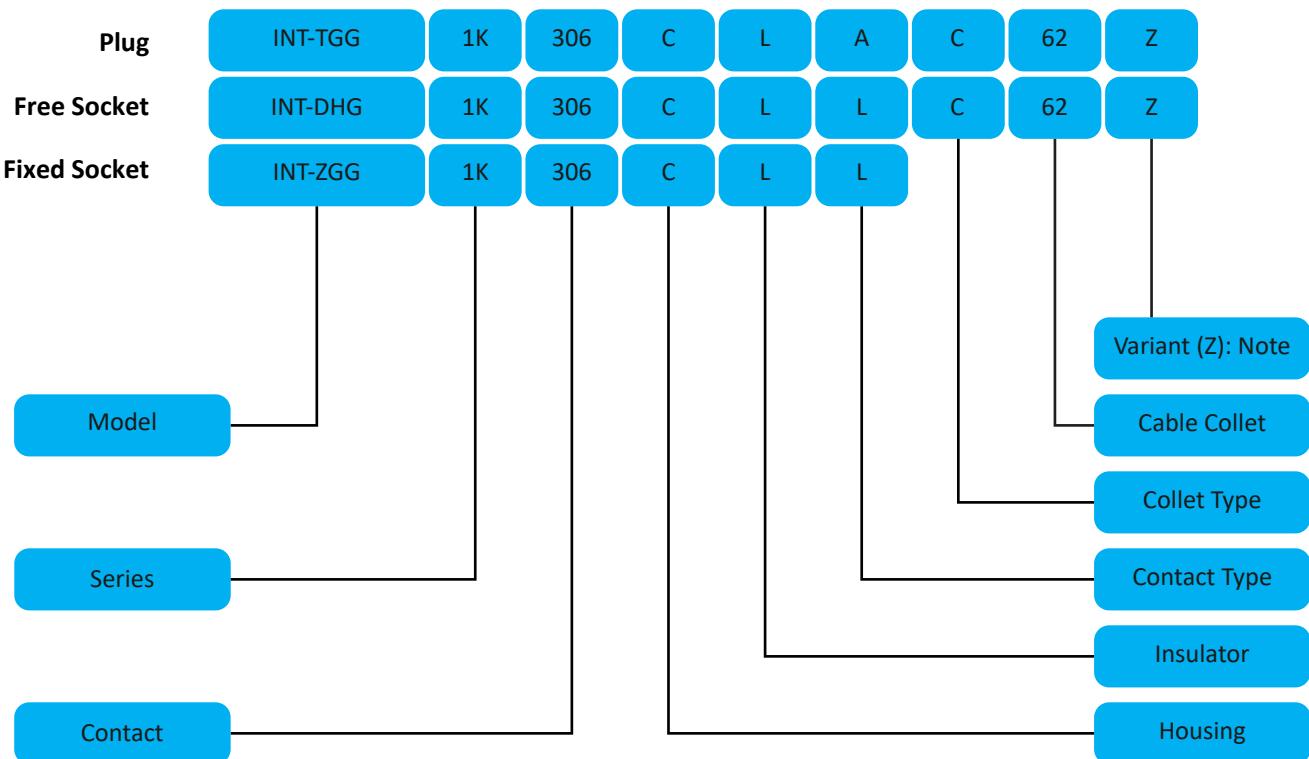
Characteristics	Value	Standard
Endurance	>6000 cycles	IEC 60512-5 test 9a
Humidity	Up to 95% at 60°C	
Temperature Range	-40°C, +250°C	
Resistance to Vibration	10-2000Hz, 15g	IEC 60512-4 test 6d
Shock Resistance	100g, 6ms	IEC 60512-4 test 6c
Salt Spray Corrosion Test	>144h	IEC 60512-6 test 11f
Protection Index (mated)	IP 68	IEC 60529
Climatical category	55/175/21	IEC 60068-1

##### Electrical

Characteristics	Value	Standard
Shielding Efficiency	at 10 MHZ	>95 dB
	at 1 GHZ	>80 dB

### 3. INT-K Series Waterproof Connectors

#### Part Numbering System



INT-TGG.1K.306.CLAC62 = 1K 6 pins straight plug, G key (alpha=0), pearl chrome plated brass housing, PPS insulator, male soldering contact type, 6.2 mm cable collet

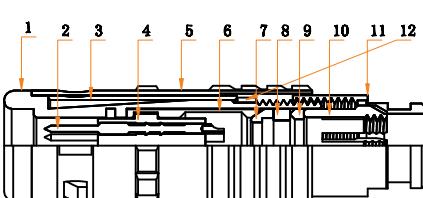
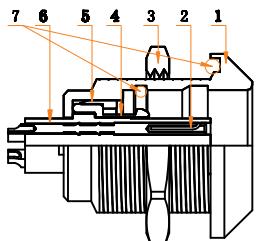
INT-DHG.1K.306.CLLC62Z = 1K 6 pins free receptacle, G key (alpha=0), pearl chrome plated brass housing, PPS insulator, female soldering contact type, 6.2 mm cable collet, nut for fitting bend relief

INT-ZGG.1K.306.CLL = 1K 6 pins panel mounted socket, G key (alpha=0), pearl chrome plated brass housing, PPS insulator, female soldering contact type, nut fixed.

\*NOTE: To order a model with cable collet and nut for fitting a bend relief, a letter "Z" is in the variant position.

#### Part Section Showing Internal Components

- Fixed Receptacle**
- (1) Outer Shell
  - (2) Insulator
  - (3) Hexagonal Nut
  - (4) Retaining Ring
  - (5) Earthing Crown
  - (6) Female Contact
  - (7) O-ring



#### Straight Plug

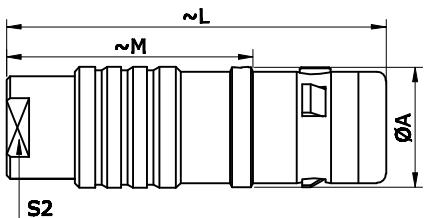
- (1) Outer Shell
- (2) Male Contact
- (3) Latch Sleeve
- (4) Insulator
- (5) Inner Shell
- (6) Split Insert Carrier
- (7) Earthing Cone
- (8) Gasket
- (9) Washer
- (10) Collet
- (11) Collet Nut
- (12) Retaining Ring

### 3. INT-K Series Waterproof Connectors

#### Product Size

##### INT-TGG

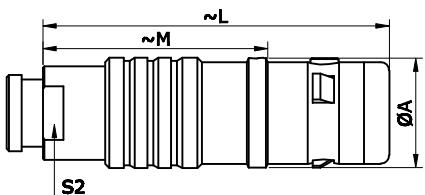
Waterproof cable mount straight plug, key (G) or keys (A... L), cable collet



Reference		Dimensions (mm)			
Model	Series	A	L	M	S2
INT-TGG	0K	11.0	34.0	23.0	7.0
INT-TGG	1K	13.0	42.0	28.0	9.0
INT-TGG	2K	16.0	52.0	36.0	12.0
INT-TGG	3K	19.0	60.0	40.0	15.0

##### INT-TGG(Z)

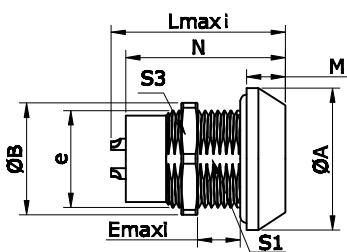
Waterproof cable mount straight plug, key (G) or keys (A... L), cable collet and nut for fitting a bend relief



Reference		Dimensions (mm)			
Model	Series	A	L	M	S2
INT-TGG(Z)	0K	11.0	34.0	23.0	7.0
INT-TGG(Z)	1K	13.0	42.0	28.0	9.0
INT-TGG(Z)	2K	16.0	52.0	36.0	12.0
INT-TGG(Z)	3K	19.0	60.0	40.0	15.0

##### INT-ZGG

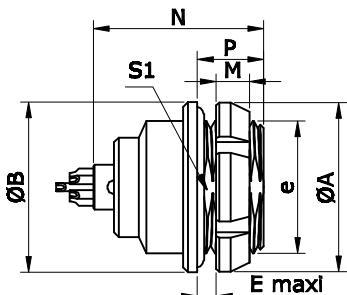
Panel mount fixed receptacle, nut fixing, key(G) or keys (A... L), solder or PCB printed type



Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N	S1	S3
INT-ZGG	0K	18.0	19.2	M14 *1.0	6	21.7	4.0	20.0	12.5	17
INT-ZGG	1K	20.0	21.5	M16 *1.0	9	27.0	4.5	25.1	14.5	19
INT-ZGG	2K	25.0	27.0	M20 *1.0	9	30.7	5.0	28.6	18.5	24
INT-ZGG	3K	31.0	34.0	M24 *1.0	11	36.2	6.0	33.6	22.5	30

##### INT-ZEG

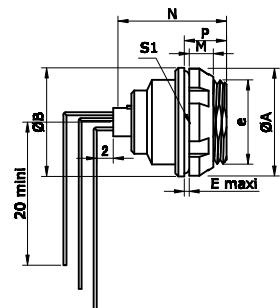
Panel mount fixed receptacle, nut fixing, key (G) or keys (A... L), solder or PCB printed type (back panel mounting)



Reference		Dimensions (mm)							
Model	Series	A	B	e	E	M	N	P	S1
INT-ZEG	0K	18.0	18.0	M14 *1.0	3.4	3.5	20.1	7.0	12.5
INT-ZEG	1K	20.0	20.0	M16 *1.0	6.2	3.5	25.1	10.0	14.5
INT-ZEG	2K	25.0	25.0	M20 *1.0	5.0	3.5	28.6	10.0	18.5
INT-ZEG	3K	30.0	31.0	M24 *1.0	7.5	4.5	33.6	12.0	22.5

### 3. INT-K Series Waterproof Connectors

#### INT-ZEG (ELBOW)



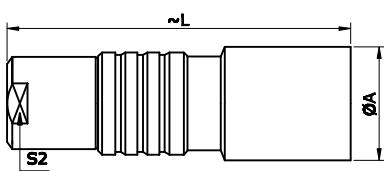
Panel mount fixed receptacle, nut fixing, key (G) or keys (A... L), elbow 90°contact for printed circuit (back panel mounting)



Reference		Dimensions (mm)							
Model	Series	A	B	e	E	M	N	P	S1
INT-ZEG(elbow)	0K	18.0	18.0	M14 *1.0	3.4	3.5	20.1	7.0	12.5
INT-ZEG(elbow)	1K	20.0	20.0	M16 *1.0	6.2	3.5	25.1	10.0	14.5
INT-ZEG(elbow)	2K	25.0	25.0	M20 *1.0	5.0	3.5	28.6	10.0	18.5
INT-ZEG(elbow)	3K	30.0	31.0	M24 *1.0	7.5	4.5	33.6	12.0	22.5

#### INT-DHG

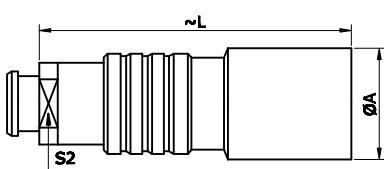
Free cable mounted receptacles, key (G) or keys (A... L), cable collet



Reference		Dimensions (mm)		
Model	Series	A	L	S2
INT-DHG	0K	13.0	34.0	7.0
INT-DHG	1K	15.0	45.0	9.0
INT-DHG	2K	19.0	54.0	12.0
INT-DHG	3K	23.0	64.0	15.0

#### INT-DHG(Z)

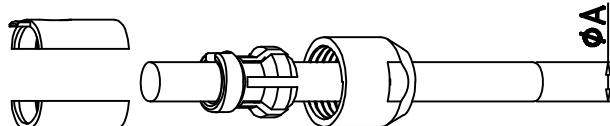
Free cable mounted receptacles, key (G) or keys (A... L), cable collet and nut for fitting a bend relief



Reference		Dimensions (mm)		
Model	Series	A	L	S2
INT-DHG(Z)	0K	13.0	34.0	7.0
INT-DHG(Z)	1K	15.0	45.0	9.0
INT-DHG(Z)	2K	19.0	54.0	12.0
INT-DHG(Z)	3K	23.0	65.0	15.0

### 3. INT-K Series Waterproof Connectors

#### Cable Collet Size



Cable Clamp Set		Cable Collet (mm)	Cable dia Range	
Type	Code	φA	Max	Min
0K-022	22	2.2	2.2	>1.4
0K-032	32	3.2	3.2	>2.2
0K-042	42	4.2	4.2	>3.2
0K-052	52	5.2	5.2	>4.2

Cable Clamp Set		Cable Collet (mm)	Cable dia Range	
Type	Code	φA	Max	Min
1K-042	42	4.2	4.2	>3.2
1K-052	52	5.2	5.2	>4.2
1K-062	62	6.2	6.2	>5.2
1K-072	72	7.2	7.2	>6.2
1K-076	76	7.6	7.5	>6.6

Cable Clamp Set		Cable Collet (mm)	Cable dia Range	
Type	Code	φA	Max	Min
2K-042	42	4.2	4.2	>3.2
2K-052	52	5.2	5.2	>4.2
2K-062	62	6.2	6.2	>5.2
2K-072	72	7.2	7.2	>6.2
2K-082	82	8.2	8.2	>7.2
2K-092	92	9.2	9.2	>8.2
2K-099	99	9.9	9.9	>9.0

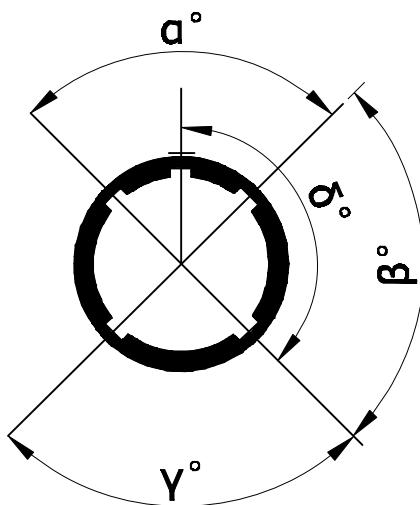
Cable Clamp Set		Cable Collet (mm)	Cable dia Range	
Type	Code	φA	Max	Min
3K-062	62	6.2	6.2	>5.2
3K-072	72	7.2	7.2	>6.2
3K-082	82	8.2	8.2	>7.2
3K-092	92	9.2	9.2	>8.2
3K-100	10	10.2	10.2	>9.2
3K-110	11	11.2	11.2	>10.2
3K-120	12	12.0	12.0	>11.0

### 3. INT-K Series Waterproof Connectors

#### Alignment Key and Polarized Key

INT-K series connector model types are composed of six letters.  
The last letter indicated the key position and contact type (male or female).

Front View of Receptacle



Code	Keys No.	Angles	Series				Contact Type	
			0K	1K	2K	3K	Plug	Receptacle
G	1		0°	0°	0°	0°	Male	Female
A	2	$\alpha$	30°	30°	30°	30°	Male	Female
B	2		45°	45°	45°	45°	Male	Female
C	2		60°	60°	60°	60°	Male	Female
D	2	$\gamma$	95°	95°	95°	95°	Male	Female
E	2	$\beta$	120°	120°	120°	120°	Male	Female
F	2		145°	145°	145°	145°	Male	Female
L	2	$\gamma$	75°	75°	75°	75°	Female	Male

### 3. INT-B and K Series Waterproof Connectors

#### INT-B and INT-K Series Multipole Layout

		Male Contact	Female Contact	Insulator	Contact No.	$\phi A(MM)$	Contact type			Test voltage (contact - contact) K/V rms	Test voltage (contact - shell) K/V rms	Rated current (A)
							Solder contact	PCB straight contact	PCB elbow contact			
00		(2 poles)	(2 poles)	302	2	0.5	●	●	●	1.00	0.95	5.0
		(3 poles)	(3 poles)	303	3	0.5	●	●	●	0.80	0.95	3.0
		(4 poles)	(4 poles)	304	4	0.5	●	●	●	0.80	0.65	2.0
0B 0K		(2 poles)	(2 poles)	302	2	0.9	●	●	●	1.30	1.05	10.0
		(3 poles)	(3 poles)	303	3	0.9	●	●	●	1.20	0.90	8.0
		(4 poles)	(4 poles)	304	4	0.7	●	●	●	0.85	0.70	7.0
		(5 poles)	(5 poles)	305	5	0.7	●	●	●	1.00	0.70	6.5
		(6 poles)	(6 poles)	306	6	0.5	●	●	●	0.85	0.65	2.5
		(7 poles)	(7 poles)	307	7	0.5	●	●	●	0.80	0.70	2.5
		(9 poles)	(9 poles)	309	9	0.5	●	●	○	0.60	0.50	2.0
		(10 poles)	(10 poles)									
1B 1K		(2 poles)	(2 poles)	302	2	1.3	●	●	●	1.50	1.35	15.0
		(3 poles)	(3 poles)	303	3	1.3	●	●	●	1.30	1.55	12.0
		(4 poles)	(4 poles)	304	4	0.9	●	●	●	1.35	1.45	10.0
		(5 poles)	(5 poles)	305	5	0.9	●	●	●	1.25	1.15	9.0

### 3. INT-B and K Series Waterproof Connectors

	Male contact	Female contact	Insulator	Contact No.	$\phi A(MM)$	Contact type			Test voltage (contact - contact) KV rms	Test voltage (contact - shell) KV rms	Rated current (A)	
						Solder contact	PCB straight contact	PCB elbow contact				
<b>1B 1K</b>				306	6	0.7	●	●	●	1.05	1.20	7.0
				307	7	0.7	●	●	●	0.95	1.05	7.0
				308	8	0.7	●	●	●	0.95	1.15	5.0
				310	10	0.5	●	●	●	0.90	1.50	2.5
				314	14	0.5	●	●	●	0.80	1.20	2.0
				316	16	0.5	●	●	○	0.80	1.25	1.5
<b>2B 2K</b>				302	2	2.0	●	●	●	2.10	1.75	25.0
				303	3	1.6	●	●	●	2.40	1.85	17.0
				304	4	1.3	●	●	●	1.85	1.85	15.0
				305	5	1.3	●	●	●	1.75	1.60	14.0
				306	6	1.3	●	●	●	1.35	1.45	12.0
				307	7	1.3	●	●	●	1.75	1.60	11.0

### 3. INT-B and K Series Waterproof Connectors

	Male contact	Female contact	Insulator	Contact No.	$\varnothing A(MM)$	Contact type			Test voltage (contact - contact) K/V rms	Test voltage (contact - shell) K/V rms	Rated current (A)
						Solder contact	PCB straight contact	PCB elbow contact			
2B 2K			308	8	0.9	●	●	●	1.50	1.25	10.0
			310	10	0.9	●	●	●	1.45	1.30	8.0
			312	12	0.7	●	●	●	1.25	1.35	7.0
			314	14	0.7	●	●	●	1.15	1.35	6.5
			316	16	0.7	●	●	●	0.95	1.25	6.0
			318	18	0.7	●	●	●	0.85	1.20	5.5
			319	19	0.7	●	●	●	0.95	1.25	5.0
			326	26	0.5	●	●	○	0.95	1.30	2.0
			332	32	0.5	●	●	○	0.80	1.20	1.5
3B 3K			302	2	3.0	●	○	-	2.10	1.55	35.0
			303	3	2.0	●	●	○	1.90	1.50	25.0

### 3. INT-B and K Series Waterproof Connectors

	Male contact	Female contact	Insulator	Contact No.	$\varnothing A(MM)$	Contact type			Test voltage (contact - contact) KV rms	Test voltage (contact - shell) KV rms	Rated current (A)	
						Solder contact	PCB straight contact	PCB elbow contact				
<b>3B 3K</b>				304	4	2.0	●	●	●	1.45	1.25	19.0
				305	5	1.6	●	●	○	1.90	1.25	19.0
				306	6	1.6	●	●	○	1.60	1.15	17.0
				307	7	1.6	●	●	○	1.70	1.25	15.0
				308	8	1.3	●	●	●	1.65	1.15	13.0
				309	8 1	1.3 2.0	●	●	-	1.35 1.35	1.05 1.05	6.0 15.0
				310	10	1.3	●	●	○	1.25	0.90	12.0
				312	12	0.9	●	●	●	1.45	1.00	9.0
				314	14	0.9	●	●	●	1.20	1.20	9.0

### 3. INT-B and K Series Waterproof Connectors

		316	16	0.9	●	●	●	1.20	0.85	8.0
		320	20	0.7	●	●	●	1.0	0.9	6.0
		322	22	0.7	●	●	●	1.0	0.9	5.5
		324	24	0.7	●	●	●	1.2	1.45	7.0
		326	26	0.7	●	●	●	0.95	0.7	4.0
		330	30	0.7	●	●	●	0.8	0.7	3.5
		332	32	0.7	●	●	●	0.75	0.7	3.0

- First choice alternative
- Special order alternative

## 4. INT-F Series Circular Connectors

Plug: |



INT-S



INT-S (female)



INT-SC



INT-SC (female)



INT-SS



INT-SSA



INT-SA



INT-WSO

Receptacle: | Panel Mount Receptacle



INT-D



INT-DEE



INT-DB



INT-DBP



INT-DBPA



INT-DBPC



INT-DEU



INT-DBPLU

| Cable Mount Receptacle



INT-K



INT-K(Z)



INT-KE

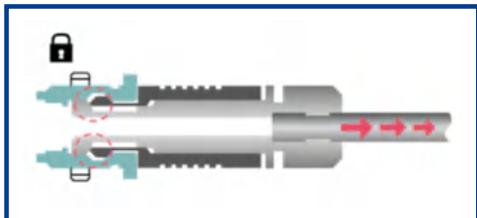


INT-KE(Z)

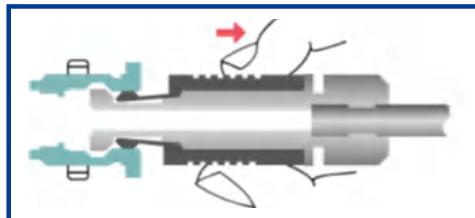
## 4. INT-F Series Circular Connectors

### Push-Pull Self-Latching Connection System

INTE-AUTO designs original push pull automatic locking connector, which widely applies to many industries for its easy use, reliable, durable mating, and fast connection and disconnection.



Secure Locking When Cable Pulled



Pull the Outer Sleeve to Unlock

### F Series Circular Connectors with the Following Main Features

1. Original push-pull self-locking system
2. Widely adopted by the industry
3. Unparalleled signal integrity
4. Fully secured against accidental disconnection
5. Designed for frequent connect disconnect operations
6. Ideal for compact product designs
7. Locking system integrated into the connector housing
8. Non-locking or emergency quick release solutions also available
9. Available over-molded injection and custom cable assembly

### Technical Characteristics

#### Mechanical and Climatical

Characteristics	Value	Standard
Endurance	>6000 cycles	IEC 60512-5 test 9a
Humidity	Up to 95% at 60°C	
Temperature Range	-40°C, +250°C	
Resistance to Vibration	10-2000Hz, 15g	IEC 60512-4 test 6d
Shock Resistance	100g, 6ms	IEC 60512-4 test 6c
Salt Spray Corrosion Test	>144h	IEC 60512-6 test 11f
Protection Index (mated)	IP 50/IP68	IEC 60529

#### Electrical

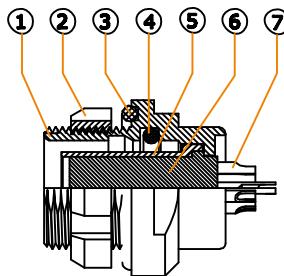
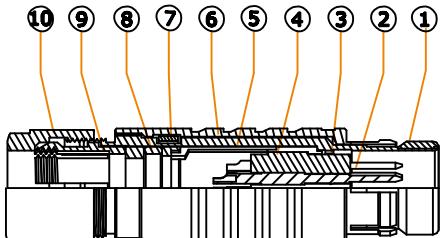
Characteristics	Value	Standard
Shielding Efficiency	at 10 MHZ	>75 dB
	at 1 GHZ	>40 dB

## 4. INT-F Series Circular Connectors

## Part Section Showing Internal Components

## Straight Plug

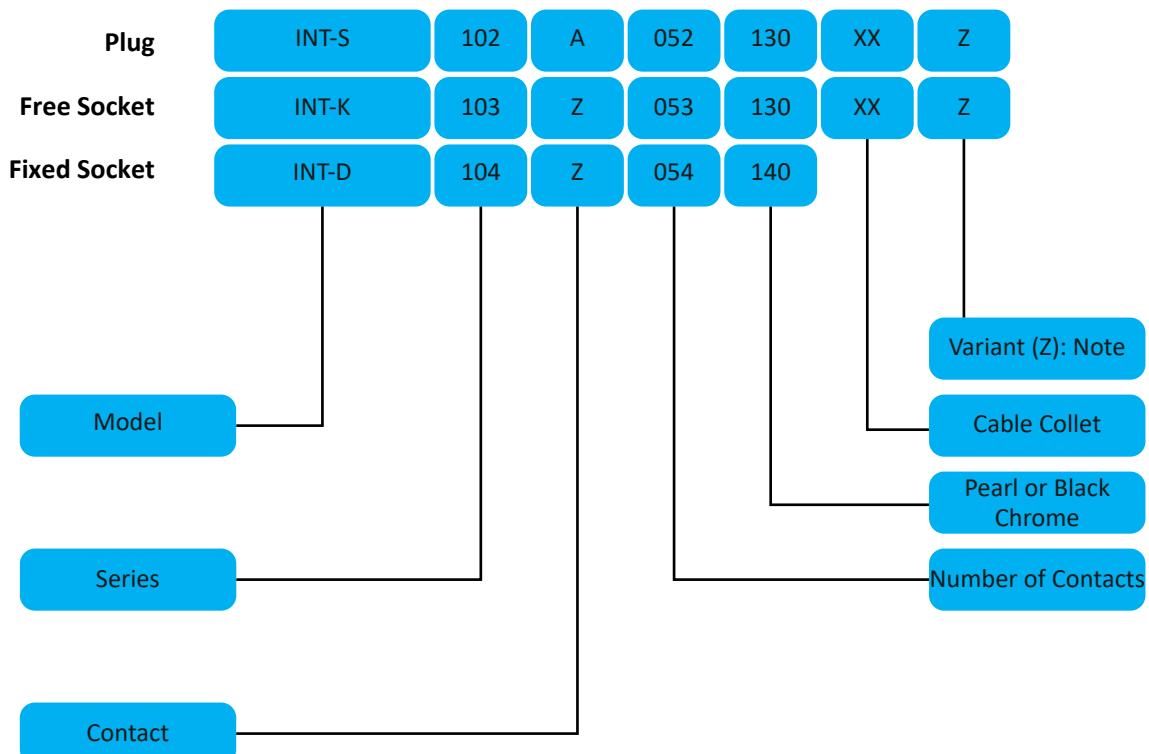
- ① Latch Sleeve
  - ② Male Contact
  - ③ Insulator
  - ④ Fixed Spacer
  - ⑤ Inner Shell
  - ⑥ Outer Shell
  - ⑦ Gasket
  - ⑧ Retaining Ring
  - ⑨ Collet
  - ⑩ Collet Nut



## **Receptacle**

- (1) Outer Shell
  - (2) Hexagonal Nut
  - (3) Outer O-ring
  - (4) Inside O-ring
  - (5) Retaining Ring
  - (6) Insulator
  - (7) Female Contacts

## Part Numbering System



INT-S102A052-13050Z = OF 3 pins straight plug, G key, half-shell code, pearl chrome plated brass housing, PPS insulator, male soldering contact type, 5.0 mm cable collet, nut for fitting bend relief

INT-K103Z053-13060Z = 1F 4 pins free receptacle, G key, half-shell code, pearl chrome plated brass housing, PPS insulator, female soldering contact type, 6.0 mm cable collet, nut for fitting bend relief

INT-D104Z054-140XX = 2F 5 pins panel mounted socket, G key, half-shell code, black chrome plated brass housing, PPS insulator, female soldering contact type, nut fixed.

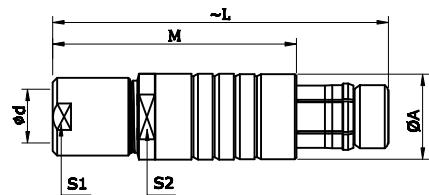
\*NOTE: To order a model with cable collet and nut for fitting a bend relief, a letter "Z" is in the variant position.

## 4. INT-F Series Circular Connectors

### Product Size

#### INT-S

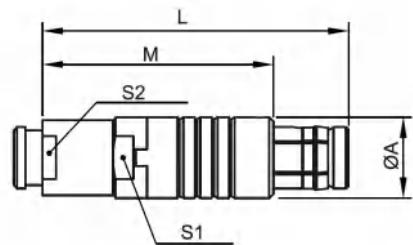
Cable mount plug, code (1, 2, 3), cable collet



Reference		Dimensions (mm)						
Model	Series	A	M	L	d max		S1	S2
					shielded clamp	sealed clamp		
INT-S	0F	9.4	26	37.2	4.7	4.3	8	8
INT-S	1F	12	34	45	6.7	6.2	9	10
INT-S	1.5F	13	36	46	7.2	6.7	12	11
INT-S	2F	15	36	48	8.7	8.7	13	13
INT-S	3F	18.7	43.4	58	10.0	10.0	16	17

#### INT-SC

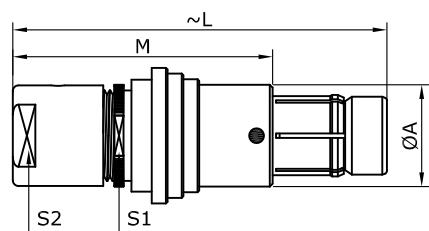
Cable mount plug, code (1, 2, 3), cable collet, nut for fitting bend relief



Reference		Dimensions (mm)				
Model	Series	A	L	M	S1	S2
INT-SC	0F	9.5	36	26	8	8
INT-SC	1F	12	45	34	9	9
INT-SC	2F	15	50	37.5	13	13
INT-SC	3F	18.7	58	44.2	16	17

#### INT-SS

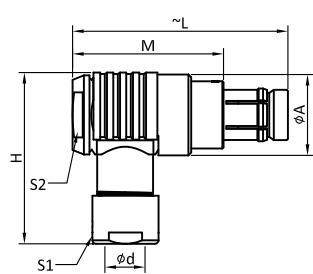
Cable mount plug, code (1, 2, 3), cable collet



Reference		Dimensions (mm)						
Model	Series	A	L	M	d max		S1	S2
					shielded clamp	sealed clamp		
INT-SS	0F	9	33	23	4.7	4.3	8	7
INT-SS	1F	12	37	26	6.7	6.2	11	12
INT-SS	1.5F	12.3	40	30	7.2	6.7	11.5	12
INT-SS	2F	15	43	31	8.7	8.7	13	13

#### INT-WSO

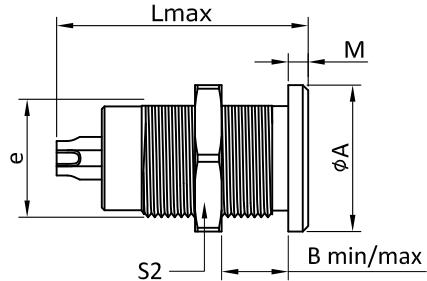
Elbow right-angle cable mount plug, code (1, 2, 3)



Reference		Dimensions (mm)							
Model	Series	A	L	M	H	d max		S1	S2
						shielded clamp	sealed clamp		
INT-WSO	0F	12	33	23	25	4.7	4.3	7	8
INT-WSO	1F	15	38	28.7	31	6.7	6.2	10	11
INT-WSO	1.5F	17	40	30	33	7.2	6.7	12	12
INT-WSO	2F	19	45	33	37	8.7	8.7	13	14

## 4. INT-F Series Circular Connectors

**INT-D**

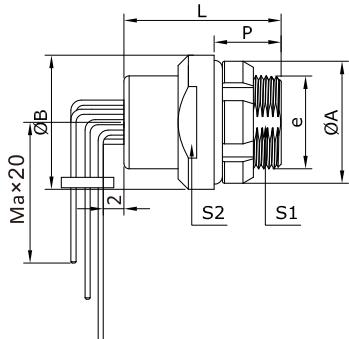


Panel mount receptacle, nut fixing, code (1, 2, 3)



Reference		Dimensions (mm)						
Model	Series	A	B	e	L	M	S2	
INT-D	OF	11	0/9	M9*0.5	18.9	1.5	11	
INT-D	1F	14	0/8	M12*1.0	23.9	1.5	14	
INT-D	1.5F	16	0/10	M14*1.0	23.3	2	17	
INT-D	2F	19	0/11	M15*1.0	25.8	2.2	17	

**INT-DBPC**

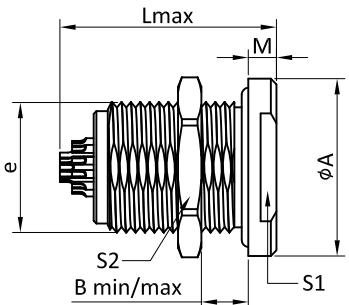


Hermetic panel mount receptacle, elbow 90°PCB contact, code (1, 2, 3)



Reference		Dimensions (mm)						
Model	Series	A	B	e	L	P	S1	S2
INT-DBPC	OF	12	14	M9*0.5	19.2	6.5	8.2	11
INT-DBPC	1F	18	18	M14*1.0	24.8	8	12.5	15
INT-DBPC	1.5F	18	19	M14*1.0	23.1	7	12	15
INT-DBPC	2F	20.8	21	M16*1.0	24.2	8	14.3	16

**INT-DEE**

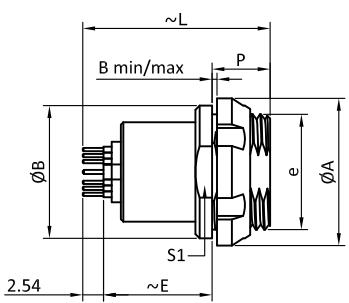


Hermetic panel mount receptacle, nut fixing, code (1, 2, 3)



Reference		Dimensions (mm)						
Model	Series	A	B	e	L	M	S1	S2
INT-DEE	OF	14	8/10	M9*0.5	20	2.5	11	11
INT-DEE	1F	18	0/12	M14*1.0	23.9	3.0	14	17
INT-DEE	1.5F	19	0/12	M14*1.0	23.3	3.0	15	17
INT-DEE	2F	20	0/13	M16*1.0	25.8	4.0	17	19

**INT-DBP**



Fixed panel mount receptacle, code (1, 2, 3), solder or PCB type

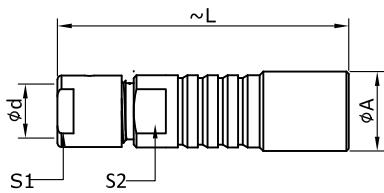


Reference		Dimensions (mm)						
Model	Series	A	B	P	E	e	L	S1
INT-DBP	OF	12	0/3.5	6.5	10	M9*0.5	20	8.2
INT-DBP	1F	15	0/4.0	8.0	12	M12*1.0	23	12.5
INT-DBP	1.5F	18	0/3.0	7.0	13	M14*1.0	23	12
INT-DBP	2F	16	0/5.0	9.0	11.5	M15*1.0	26	14.3

## 4. INT-F Series Circular Connectors

**INT-K**

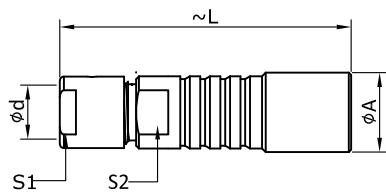
Cable mount receptacle, code (1, 2, 3), cable collet



Reference		Dimensions (mm)					
Model	Series	A	L	d max		S1	S2
				shielded clamp	sealed clamp		
INT-K	0F	10	36	4.7	4.3	7	7
INT-K	1F	13	43	6.7	6.2	10	10
INT-K	1.5F	13.5	45	7.2	6.7	12	11
INT-K	2F	16	48	8.7	8.7	13	12

**INT-KE**

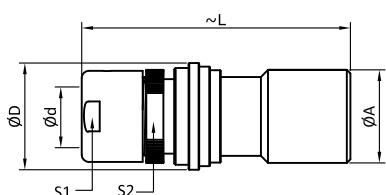
Cable sealed mount receptacle, code (1, 2, 3), cable collet



Reference		Dimensions (mm)					
Model	Series	A	L	d max		S1	S2
				shielded clamp	sealed clamp		
INT-KE	0F	10	36	4.7	4.3	7	7
INT-KE	1F	13	43	6.7	6.2	10	10
INT-KE	1.5F	13.5	45	7.2	6.7	12	11
INT-KE	2F	16	48	8.7	8.7	13	12

**INT-KS**

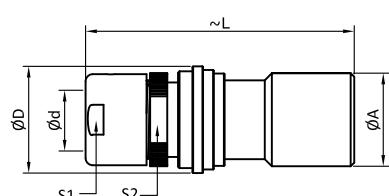
Short cable mount receptacle, code (1, 2, 3), cable collet



Reference		Dimensions (mm)					
Model	Series	A	L	M	d max	S1	S2
INT-KS	0F	10	32	23	3.8	8	8
INT-KS	1F	13	37	26	6.0	11	12
INT-KS	1.5F	13.5	36	30	6.2	11.5	12
INT-KS	2F	16	45	31	8.0	13	13

**INT-KSE**

Short sealed cable mount receptacle, code (1, 2, 3), cable collet

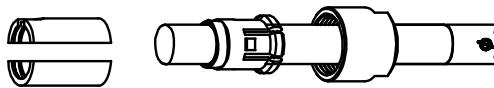


Reference		Dimensions (mm)					
Model	Series	A	L	M	d max	S1	S2
INT-KSE	0F	10	32	23	3.8	8	8
INT-KSE	1F	13	37	26	6.0	11	12
INT-KSE	1.5F	13.5	36	30	6.2	11.5	12
INT-KSE	2F	16	45	31	8.0	13	13

## 4. INT-F Series Circular Connectors

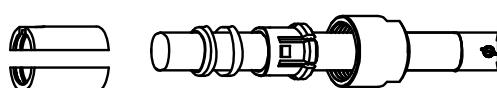
### Cable Collet Size

#### INT-OF



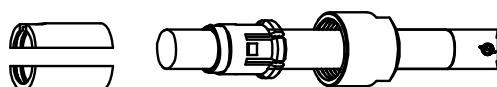
Cable dia Range	Collet Ø (mm)	Cable Clamp Set	Cable dia Range	Collet Ø (mm)	Cable Clamp Set
1.5-2.1	2.1	102 Series	3.6-4.1	4.1	102 Series
2.1-2.6	2.6	102 Series	4.1-4.3	4.3	102 Series
2.6-3.1	3.1	102 Series	4.3-4.7	4.7	102 Series
3.1-3.6	3.6	102 Series			

#### INT-OF



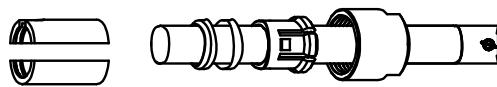
Cable dia Range	Collet Ø (mm)	Cable Clamp Set	Cable dia Range	Collet Ø (mm)	Cable Clamp Set
1.5-2.1	2.1	102 Series	3.1-3.6	3.6	102 Series
2.1-2.6	2.6	102 Series	3.6-4.1	4.1	102 Series
2.6-3.1	3.1	102 Series	4.1-4.3	4.3	102 Series

#### INT-1F



Cable dia Range	Collet Ø (mm)	Cable Clamp Set	Cable dia Range	Collet Ø (mm)	Cable Clamp Set
1.7-2.2	2.2	103 Series	4.2-4.7	4.7	103 Series
2.2-2.7	2.7	103 Series	4.7-5.2	5.2	103 Series
2.7-3.2	3.2	103 Series	5.2-5.7	5.7	103 Series
3.2-3.7	3.7	103 Series	5.7-6.2	6.2	103 Series
3.7-4.2	4.2	103 Series	6.2-6.7	6.7	103 Series

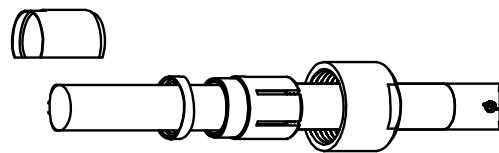
#### INT-1F



Cable dia Range	Collet Ø (mm)	Cable Clamp Set	Cable dia Range	Collet Ø (mm)	Cable Clamp Set
1.7-2.2	2.2	103 Series	4.2-4.7	4.7	103 Series
2.2-2.7	2.7	103 Series	4.7-5.2	5.2	103 Series
2.7-3.2	3.2	103 Series	5.2-5.7	5.7	103 Series
3.2-3.7	3.7	103 Series	5.7-6.2	6.2	103 Series
3.7-4.2	4.2	103 Series			

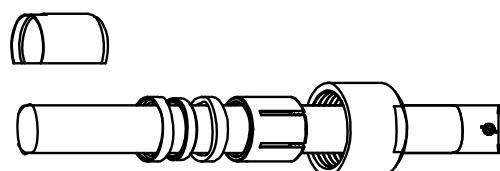
## 4. INT-F Series Circular Connectors

INT-1.5F



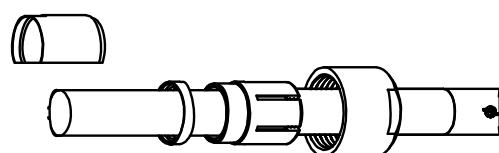
Cable dia Range	Collet Ø (mm)	Cable Clamp Set	Cable dia Range	Collet Ø (mm)	Cable Clamp Set
2.2-2.7	2.7	1031 Series	4.7-5.2	5.2	1031 Series
2.7-3.2	3.2	1031 Series	5.2-5.7	5.7	1031 Series
3.2-3.7	3.7	1031 Series	5.7-6.2	6.2	1031 Series
3.7-4.2	4.2	1031 Series	6.2-6.7	6.7	1031 Series
4.2-4.7	4.7	1031 Series	6.7-7.2	7.2	1031 Series

INT-1.5F



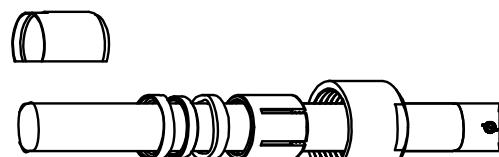
Cable dia Range	Collet Ø (mm)	Cable Clamp Set	Cable dia Range	Collet Ø (mm)	Cable Clamp Set
2.2-2.7	2.7	1031 Series	4.7-5.2	4.7	1031 Series
2.7-3.2	3.2	1031 Series	5.2-5.7	5.7	1031 Series
3.2-3.7	3.7	1031 Series	5.7-6.2	6.2	1031 Series
3.7-4.2	4.2	1031 Series	6.2-6.7	6.7	1031 Series
4.2-4.7	4.7	1031 Series			

INT-2F



Cable dia Range	Collet Ø (mm)	Cable Clamp Set	Cable dia Range	Collet Ø (mm)	Cable Clamp Set
2.9-4.0	4.0	104 Series	6.7-7.7	7.7	104 Series
4.0-4.7	4.7	104 Series	7.7-8.7	8.7	104 Series
4.7-5.7	5.7	104 Series	8.7-9.1	9.1	104 Series
5.7-6.7	6.7	104 Series			

INT-2F

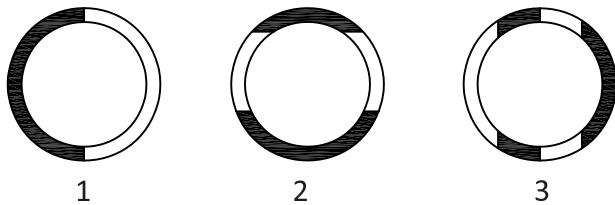


Cable dia Range	Collet Ø (mm)	Cable Clamp Set	Cable dia Range	Collet Ø (mm)	Cable Clamp Set
2.9-4.0	4.0	104 Series	5.7-6.7	6.7	104 Series
4.0-4.7	4.7	104 Series	6.7-7.7	7.7	104 Series
4.7-5.7	5.7	104 Series	7.7-8.7	8.7	104 Series

## 4. INT-F Series Circular Connectors

### Code Option

**Code 1 is standard**



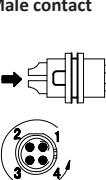
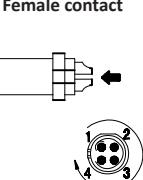
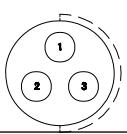
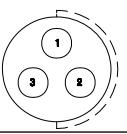
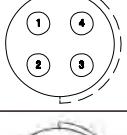
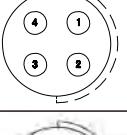
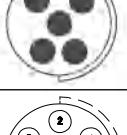
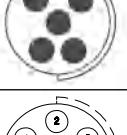
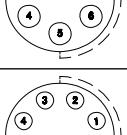
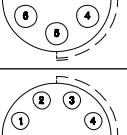
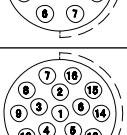
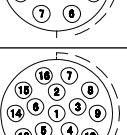
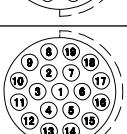
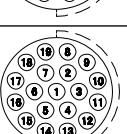
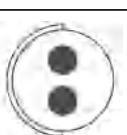
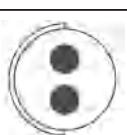
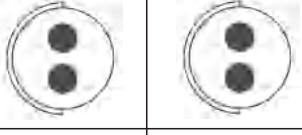
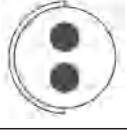
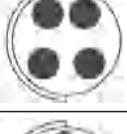
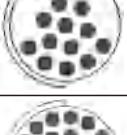
### INT-F Series Multipole Layout

		Male contact ØA	Female contact 	Code	Contact No.	ØA(MM)	Solder contact	PCB straight contact	PCB elbow contact	Test voltage(contact -shell)k/v AC-rms	Test voltage(contact -contact)k/v AC-rms	Rated current /A
OF				051	2	0.9	●	●	●	1.30	1.05	10.0
				052	3	0.9	●	●	●	1.20	0.90	8.0
				053	4	0.7	●	●	●	0.85	0.70	7.0
				054	5	0.7	●	●	●	1.00	0.70	6.5
				055	7	0.5	●	●	●	0.80	0.70	2.5
				056	9	0.5	●	●	●	0.60	0.50	2.0
1F				051	2	1.3	●	●	●	1.50	1.35	15.0
				052	3	1.3	●	●	●	1.30	1.55	12.0
				053	4	0.9	●	●	●	1.35	1.45	10.0
				054	5	0.9	●	●	●	1.25	1.15	9.0
				056	6	0.7	●	●	●	1.05	1.2	7.0
				057	7	0.7	●	●	●	0.95	1.05	7.0

## 4. INT-F Series Circular Connectors

		058	8	0.7	●	●	●	0.95	1.15	5.0
		059	10	0.5	●	●	●	0.90	1.50	2.5
		062	12	0.5	●	●	●	0.80	1.2	2.0
		065	16	0.5	●	●	●	0.80	1.25	1.5
1.5F		010	10	0.7	●	●	●	1.4	1.5	4.5
		012	12	0.7	●	●	●	1.4	1.5	4.2
		019	19	0.7	●	●	●	0.9		2.54

## 4. INT-F Series Circular Connectors

		Male contact      Female contact										
		Code	Contact No.	$\phi A(MM)$	Solder contact	PCB straight contact	PCB elbow contact	Test voltage(contact -shell) k/v AC-rms	Test voltage(contact -contact) k/v AC-rms	Rated current /A		
2F	051			051	2	1.6	●	○	○	1.80	2.20	20
	040			040	3	1.6	●	○	○	1.6	2.0	18.0
	037			037	4	1.3	●	○	○	1.80	2.20	15
	053			053	5	1.3	●	○	○	1.75	2.20	14
	065			065	6	0.9	●	○	○	1.7	2.0	6.5
	066			066	8	0.9	●	○	○	1.50	1.50	6.20
	086			086	16	0.7	●	○	○	1.0	1.50	4.0
	092			092	19	0.7	●	○	○	0.80	1.20	3.50
3F	051			051	2	2.0	●	●	●	2.5	3.0	26
	053			053	4	2.0	●	●	●	1.8	1.8	20
	058			058	15	0.9	●	●	●	1.4	1.6	5.3
	102			102	27	0.7	●	●	●	1.2	1.5	3.0

## 5. INT-S Series Half-Moon Connectors

Plug: |



Receptacle: |



## 5. INT-S Series Half-Moon Connectors

### Push-Pull Self-Latching Connection System



Drawing	Specification
	<b>Engaging</b> The self-latching system allows the connector to be mated by simply pushing the plug into the receptacle.
	<b>Latched</b> Once firmly latched, the connection cannot be broken by pulling on the cable or any other component part other than the outer release sleeve.
	<b>Disengaging</b> When required, the connector is disengaged by a single axial pull on the outer release sleeve. This first disengages the latches and then withdraws the plug from the socket.

## 5. INT-S Series Half-Moon Connectors

### S Series Half-Moon Connectors with the Following Main Features

1. Push-Pull self-latching connection system
2. Solder contacts
3. Multipole up to 14 contacts
4. Polarization by stepped insert (half-moon) for alignment
5. 360° screening for full EMC shielding
6. High-density installation for saving space

### Technical Characteristics

#### Mechanical and Climatical

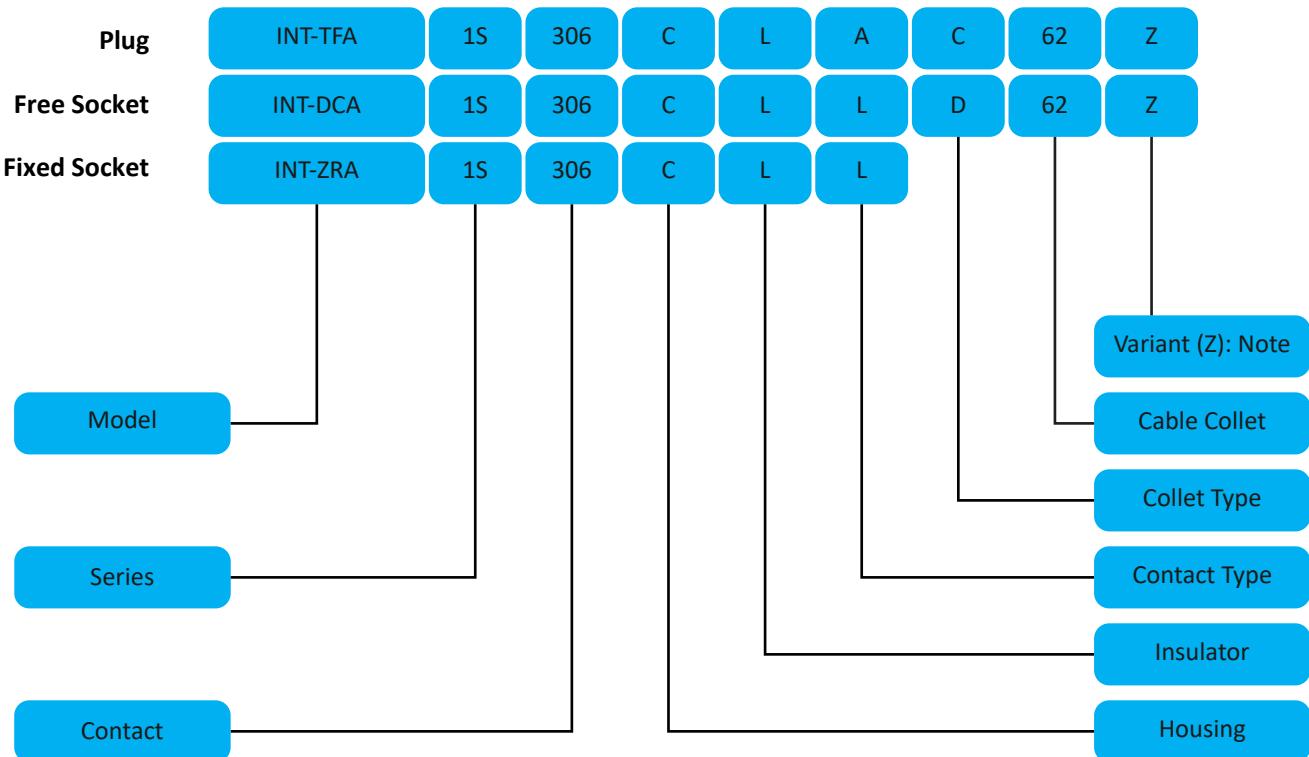
Characteristics	Value	Standard
Endurance	>6000 cycles	IEC 60512-5 test 9a
Humidity	Up to 95% at 60°C	
Temperature Range	-40°C, +250°C	
Resistance to Vibration	10-2000Hz, 15g	IEC 60512-4 test 6d
Shock Resistance	100g, 6ms	IEC 60512-4 test 6c
Salt Spray Corrosion Test	>144h	IEC 60512-6 test 11f
Protection Index (mated)	IP 50	IEC 60529
Climatical category	55/175/21	IEC 60068-1

#### Electrical

Characteristics	Value	Standard
Shielding Efficiency	at 10 MHZ	>5 dB
	at 1 GHZ	>80 dB

## 5. INT-S Series Half-Moon Connectors

### Part Numbering System



INT-TFA.1S.306.CLAC62 = Straight plug, 1S series 6 contacts, 3 male and 3 female solder contacts, outer shell in chrome-plated brass, PPS insulator, cable collet for a 6.2 mm diameter cable.

INT-DCA.1S.306.CLLC62Z = Free receptacle, 1S series 6 pins, 3 male and 3 female solder contacts, outer shell in chrome-plated brass, PPS insulator, cable collet for a 6.2 mm diameter cable, nut for fitting a bend relief.

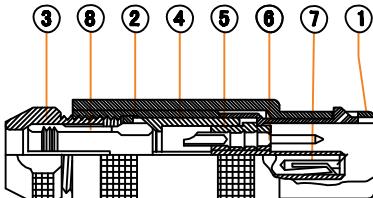
INT-ZRA.1S.306.CLL = Fixed socket, 1S series 6 pins, 3 male and 3 female solder contacts, outer shell in chrome-plated brass, PPS insulator, nut fixing.

\*NOTE: To order a model with cable collet and nut for fitting a bend relief, a letter "Z" is in the variant position.

### Part Section Showing Internal Components

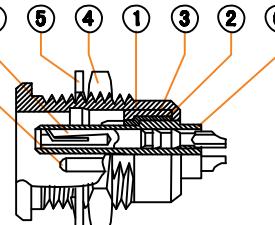
#### Straight Plug

- ① Outer Shell
- ② Latch Sleeve
- ③ Collet Nut
- ④ Center-Piece
- ⑤ Insulator
- ⑥ Male Contact
- ⑦ Female Contact
- ⑧ Collet



#### Fixed Receptacle

- ① Outer Shell
- ② Earthing Crown
- ③ Retaining Ring
- ④ Hexagonal Nut
- ⑤ Locking Washer
- ⑥ Insulator
- ⑦ Male Contact
- ⑧ Female Contact

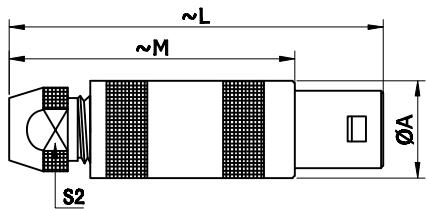


## 5. INT-S Series Half-Moon Connectors

### Product Size

#### INT-TFA

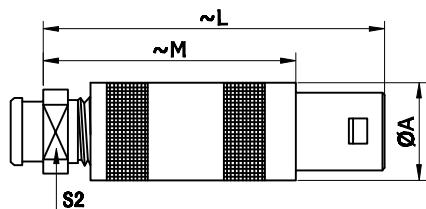
Straight plug, cable collet



Reference		Dimensions (mm)			
Model	Series	A	L	M	S2
INT-TFA	00S	6.4	26.0	18.0	4.5
INT-TFA	0S	9.0	34.5	24.5	6.5
INT-TFA	1S	12.0	42.5	31.5	8.5
INT-TFA	2S	14.8	52.0	40.0	11.0
INT-TFA	3S	17.8	61.0	46.0	14.0

#### INT-TFA(Z)

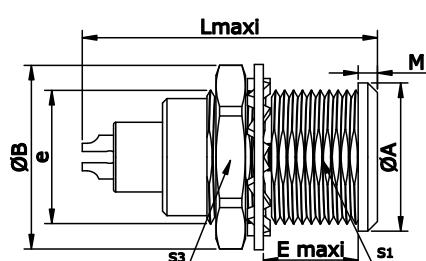
Straight plug, cable collet, nut for fitting a bend relief



Reference		Dimensions (mm)					
Model	Series	A	L	M	S2		
INT-TFA(Z)	00S	6.4	26.0	18.0	4.5		
INT-TFA(Z)	0S	9.0	34.5	24.5	6.5		
INT-TFA(Z)	1S	12.0	42.5	31.5	8.5		
INT-TFA(Z)	2S	14.8	52.0	40.0	11.0		
INT-TFA(Z)	3S	17.8	61.0	46.0	14.0		

#### INT-ZRA

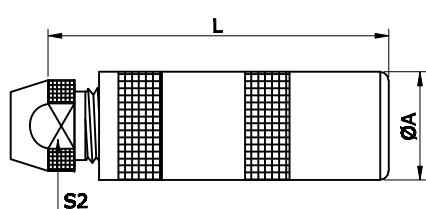
Panel mount fixed receptacle, nut fixing



Reference		Dimensions (mm)							
Model	Series	A	B	e	E	L	M	S1	S3
INT-ZRA	00S	8.0	10.2	M7 * 0.5	5.5	14.5	1.0	6.3	9.0
INT-ZRA	0S	10.0	12.4	M9 * 0.6	7.0	17.5	1.2	8.2	11.0
INT-ZRA	1S	14.0	15.8	M12 * 1.0	7.5	20.2	1.5	10.5	14.0
INT-ZRA	2S	18.0	19.2	M15 * 1.0	8.5	24.5	1.8	13.5	17.0
INT-ZRA	3S	22.0	25.0	M18 * 1.0	11.5	29.0	2.0	16.5	22.0

#### INT-DCA

Free cable receptacle, cable collet

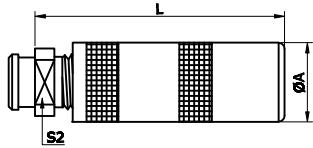


Reference		Dimensions (mm)		
Model	Series	A	L	S2
INT-DCA	00S	6.5	25.0	4.5
INT-DCA	0S	8.9	33.5	6.5
INT-DCA	1S	11.9	40.5	8.5
INT-DCA	2S	14.8	50.0	11.0
INT-DCA	3S	17.8	59.0	14.0

## 5. INT-S Series Half-Moon Connectors

**INT-DCA(Z)**

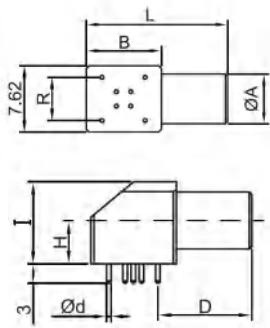
Free cable receptacle, cable collet, nut for fitting a bend relief



Reference		Dimensions (mm)		
Model	Series	A	L	S2
INT-DCA(Z)	00S	6.5	25.0	6
INT-DCA(Z)	0S	8.9	33.5	7
INT-DCA(Z)	1S	11.9	40.5	9
INT-DCA(Z)	2S	14.8	50.0	12.0
INT-DCA(Z)	3S	17.8	59.0	14.0

**INT-ZPL**

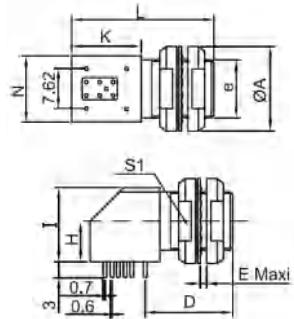
Elbow (90°) receptacle for printed circuit, solder or screw fixing



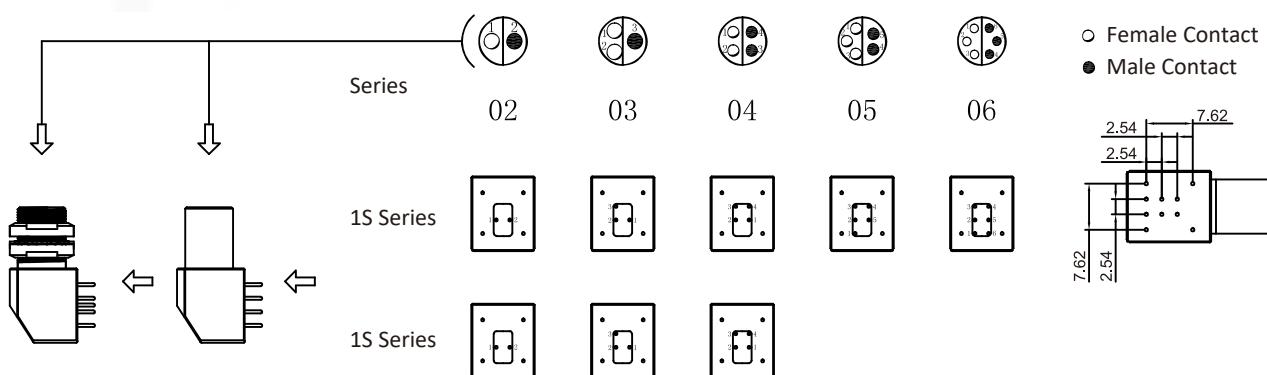
Reference		Dimensions (mm)							
Model	Series	A	B	N	I	H	D	d	L
INT-ZPL	0S	9	14.2	12	12.7	6.7	14.6	0.7	25
INT-ZPL	1S	11	13.3	13	14.2	7.5	16.6	0.7	27

**INT-ZXP**

Elbow (90°) receptacle for printed circuit, solder or screw fixing, back panel mounting

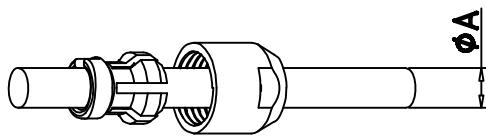


Reference		Dimensions (mm)									
Model	Series	A	K	N	I	H	A	L	D	S1	e
INT-ZXP	0S	12	14.2	12	12.7	6.7	12	25	14.6	10	M9*0.5
INT-ZXP	1S	14	13.3	13	14.2	7.5	15	27	16.6	13	M11*0.5



## 5. INT-S Series Half-Moon Connectors

### Cable Collet Size



Cable Clamp Set		Cable Collet (mm)	Cable dia Range	
Type	Code	$\phi A$	Max	Min
OS-032	32	3.2	3.2	>2.2
OS-042	42	4.2	4.2	>3.2
OS-052	52	5.2	5.2	>4.2

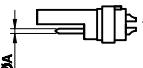
Cable Clamp Set		Cable Collet (mm)	Cable dia Range	
Type	Code	$\phi A$	Max	Min
1S-042	42	4.2	4.2	>2.5
1S-052	52	5.2	5.2	>4.2
1S-062	62	6.2	6.2	>5.2

Cable Clamp Set		Cable Collet (mm)	Cable dia Range	
Type	Code	$\phi A$	Max	Min
2S-052	52	5.2	5.2	>4.2
2S-062	62	6.2	6.2	>5.2
2S-072	72	7.2	7.2	>6.2
2S-082	82	8.2	8.2	>7.2

### INT-S Series Multipole Layout

	Male contact	Female contact	Insulator	Contact No.	$\phi A(MM)$	Contact type			Test voltage (contact - contact) K/V rms	Test voltage (contact - shell) K/V rms	Rated current (A)
						Solder contact	PCB straight contact	PCB elbow contact			
OS			302	2	0.9	●	●	●	1.50	2.10	10.0
			303	3	0.7	●	●	●	1.00	1.50	7.0
			304	4	0.7	●	●	●	1.00	1.50	7.0
1S			302	2	1.3	●	○	○	1.20	1.80	15.0
			303	3	0.9	●	●	○	1.20	1.80	10.0
			304	4	0.9	●	●	●	0.95	1.15	5.0
			305	2	0.9	●	●	●	1.50	2.10	10.0
			306	6	0.7	●	●	●	1.50	2.10	7.0

## 5. INT-S Series Half-Moon Connectors

	Male contact	Female contact	Insulator	Contact No.	$\phi A(MM)$	Contact type			Test voltage (contact - contact) K/V rms	Test voltage (contact - shell) K/V rms	Rated current (A)
						Solder contact	PCB straight contact	PCB elbow contact			
2S			302	2	1.6	●	○	○	1.70	2.40	20.0
			303	3	1.3	●	○	○	1.50	2.10	15.0
			304	4	1.3	●	○	○	1.70	2.40	15.0
			305	5	1.3	●	○	○	1.50	2.10	13.0
			306	6	1.3	●	○	○	1.50	2.10	12.0
			307	3 4	1.3 0.9	●	○	○	0.80 0.80	1.20 1.20	12.0 9.0
			308	8	0.9	●	○	○	0.80	1.20	9.0
			310	10	0.9	●	○	○	0.80	1.20	7.0

- First choice alternative
- Special order alternative

## 6. INT-S & E Series Coaxial Connector

00S Plug



00S Receptacle



0S Plug

0S Receptacle



1S Plug

1S Receptacle



2S Plug

2S Receptacle

1E Plug (IP68)

1E Receptacle (IP68)



## 6. INT-S & E Series Coaxial Connector

### Push-Pull Self-Latching Connection System



Drawing	Specification
A technical cross-sectional diagram showing the internal mechanism of the connector during engagement. It depicts the plug being pushed into the receptacle. Red arrows indicate the direction of force applied to the plug, and the internal latching components are shown shifting into place to secure the connection.	<b>Engaging</b> The self-latching system allows the connector to be mated by simply pushing the plug into the receptacle.
A technical cross-sectional diagram showing the connector in its latched state. The plug is fully inserted, and the internal latching mechanism is fully engaged, holding the connection securely. Red arrows indicate the direction of force applied to the plug, showing it cannot be pulled out without disengaging the latches.	<b>Latched</b> Once firmly latched, the connection cannot be broken by pulling on the cable or any other component part other than the outer release sleeve.
A technical cross-sectional diagram showing the disengagement process. A red arrow points outward from the outer sleeve of the plug, indicating the direction of pull required to disengage the latches and withdraw the plug from the receptacle.	<b>Disengaging</b> When required, the connector is disengaged by a single axial pull on the outer release sleeve. This first disengages the latches and then withdraws the plug from the socket.

## 6. INT-S & E Series Coaxial Connector

### Coaxial Connector with the Following Main Features

1. Push-Pull self-latching system
2. Coaxial (50Ω and 75Ω), unipole configuration
3. M7, M9, M12, M15 size are optional
4. Fast connection, reliable performances
5. 360° screening for full EMC shielding

### Technical Characteristics

#### Mechanical and Climatical

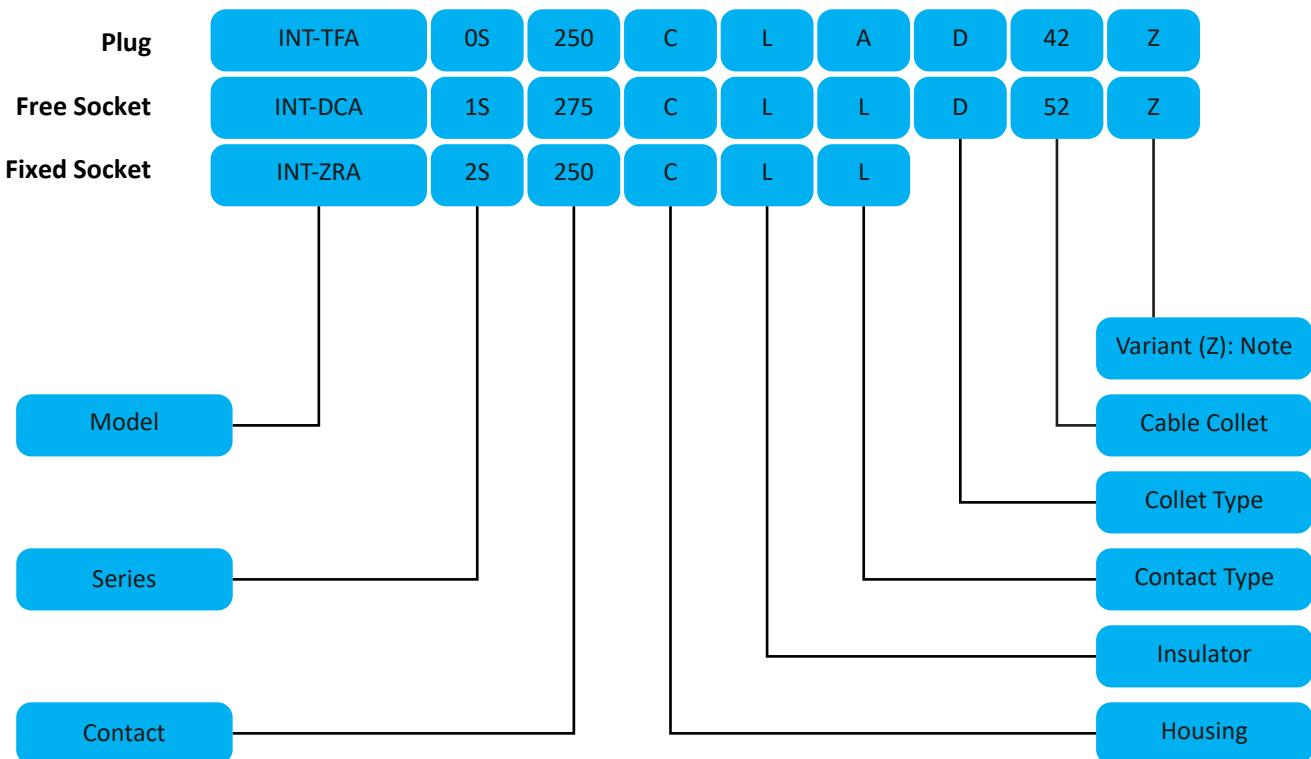
Characteristics	Value	Standard
Endurance	>6000 cycles	IEC 60512-5 test 9a
Humidity	Up to 95% at 60°C	
Temperature Range	-40°C, +250°C	
Resistance to Vibration	10-2000Hz, 15g	IEC 60512-4 test 6d
Shock Resistance	100g, 6ms	IEC 60512-4 test 6c
Salt Spray Corrosion Test	>144h	IEC 60512-6 test 11f
Protection Index (mated)	S series: IP50 E series: IP68	IEC 60529

#### Electrical

Characteristics	Value	Standard
Shielding Efficiency	at 10 MHZ	>75 dB
	at 1 GHZ	>40 dB

## 6. INT-S & E Series Coaxial Connector

### Part Numbering System



INT-TFA.0S.250.CLLAD42Z = 0S 1 pin straight plug, 50Ω, pearl chrome plated brass housing, PTFE insulator, male soldering contact type, 4.2 mm cable collet, nut for fitting bend relief

INT-DCA.1S.275.CLLD52Z = 1S 1 pin free receptacle, 75Ω, pearl chrome plated brass housing, PTFE insulator, female soldering contact type, 5.2 mm cable collet, nut for fitting bend relief

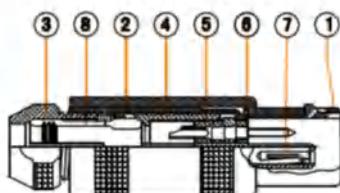
INT-ZRA.2S.250.CLL = 2S 1 pin panel mounted socket, 50Ω, pearl chrome plated brass housing, PTFE insulator, female soldering contact type, nut fixed.

\*NOTE: To order a model with cable collet and nut for fitting a bend relief, a letter "Z" is in the variant position

### Part Section Showing Internal Components

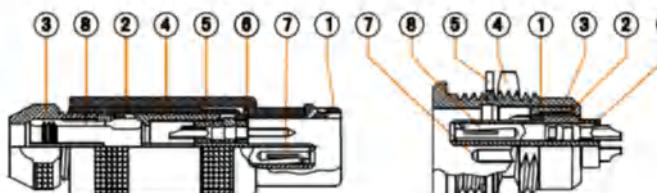
#### Straight Plug

- ① Outer Shell
- ② Latch Sleeve
- ③ Collet Nut
- ④ Center-Piece
- ⑤ Insulator
- ⑥ Male Contact
- ⑦ Collet



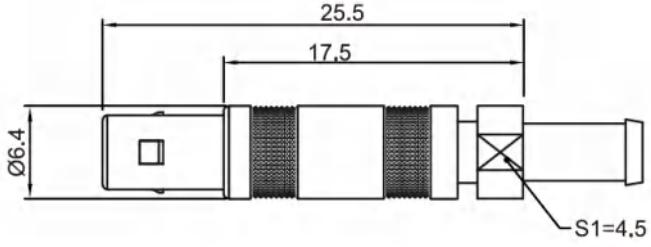
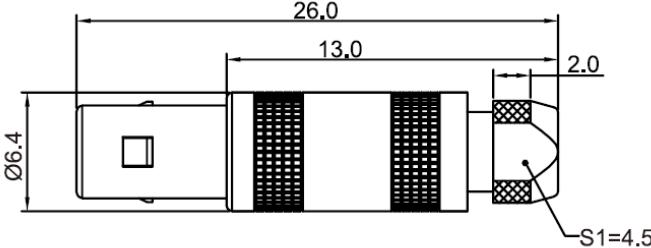
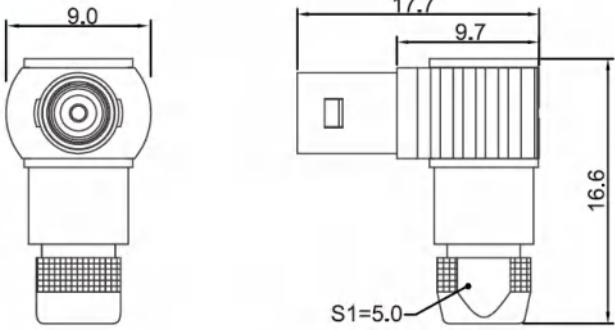
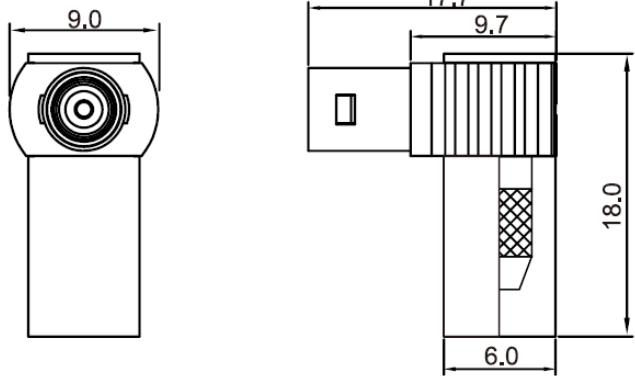
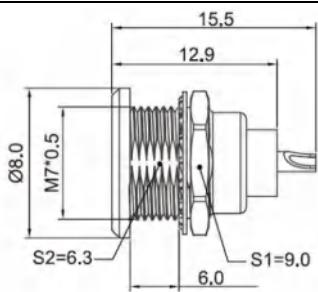
#### Fixed Receptacle

- ① Outer Shell
- ② Earthing Crown
- ③ Retaining Ring
- ④ Hexagonal Nut
- ⑤ Locking Washer
- ⑥ Insulator
- ⑦ Female Contact



## 6. INT-S & E Series Coaxial Connector

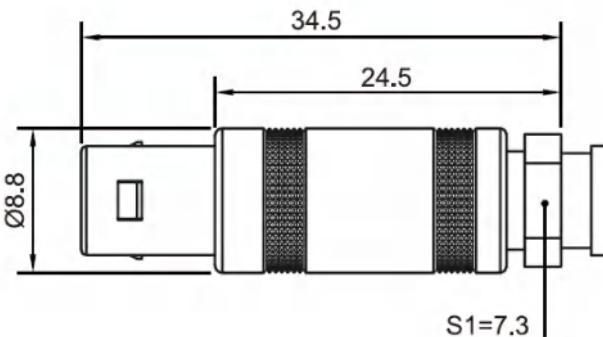
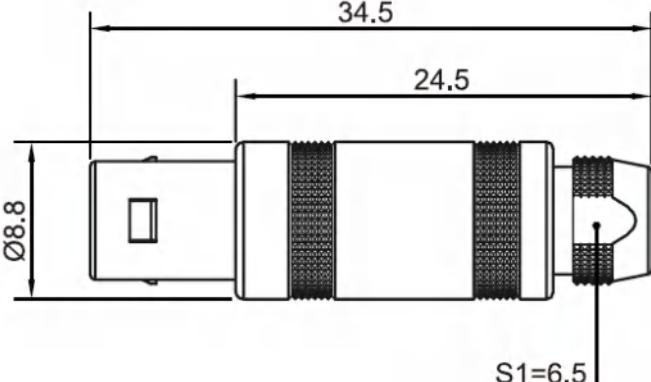
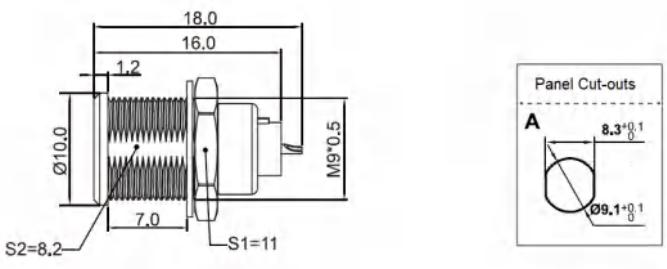
### Product Size

Part Number	Product Photo	Size
INT-TFA.00.250.CLADXXZ		
INT-TFA.00.250.CLADXX		
INT-TLA.00.250.CLA		
INT-TLA.00.250.CLADXX		
INT-ZRA.00.250.CLL		 <p>Panel Cut-outs A: Ø6.4<sup>+0.1</sup><sub>0</sub>, Ø7.1<sup>+0.1</sup><sub>0</sub></p>

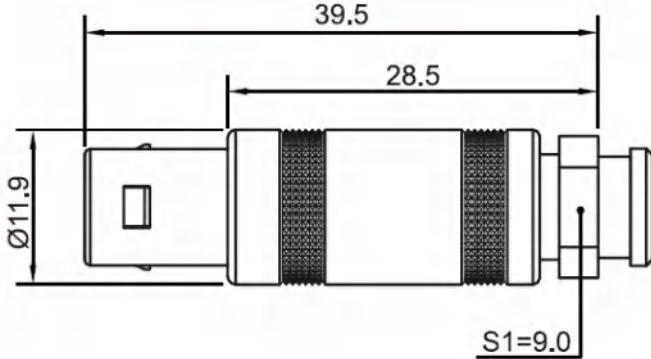
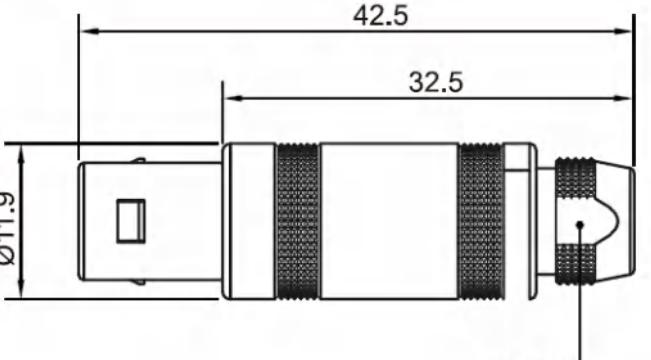
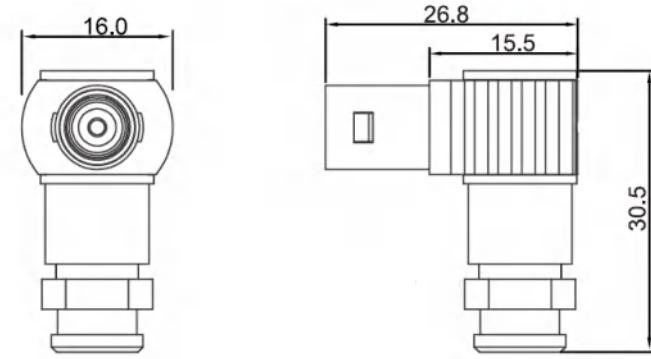
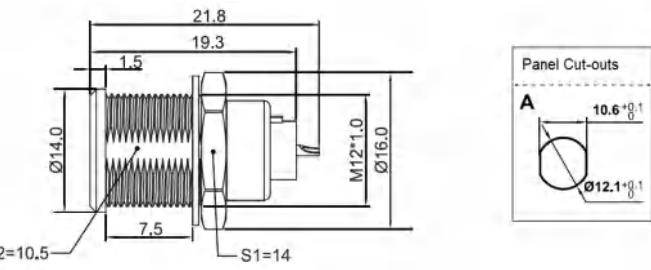
## 6. INT-S & E Series Coaxial Connector

INT-DCA.00.250.CLADXXZ		
INT-ZRN.00.250.CLL		
INT-ZPL.00.250.NTN		
INT-ZPS.00.250.NTN		
PCB Panel Cut-outs		

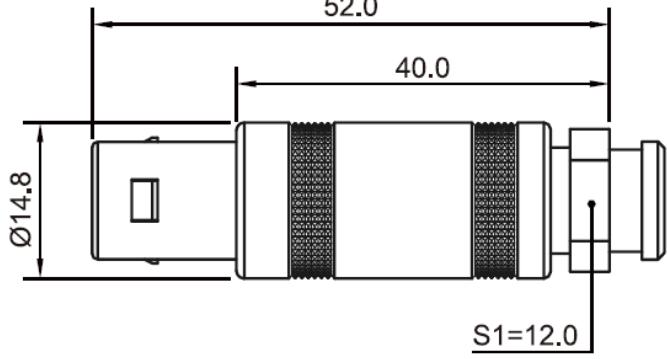
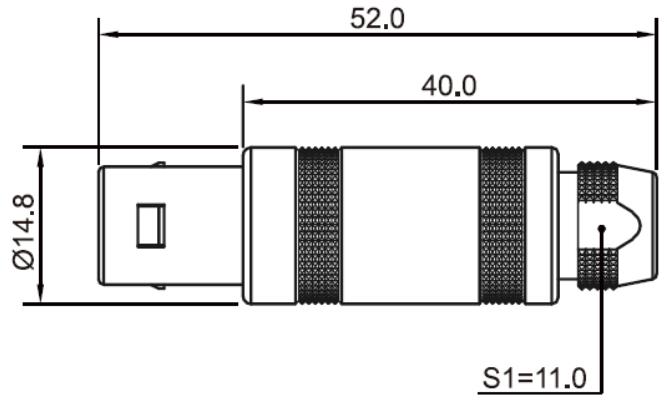
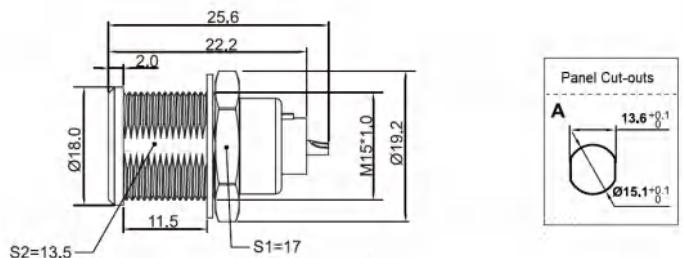
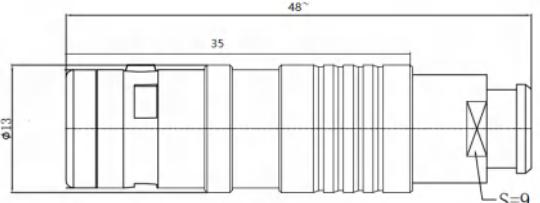
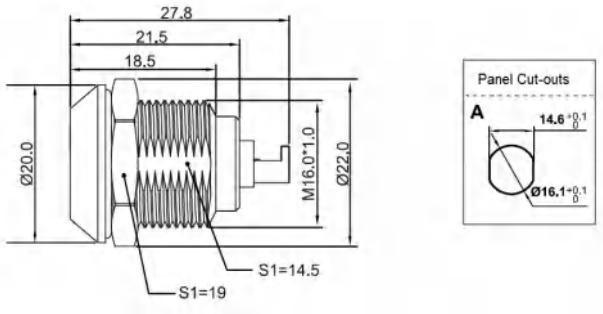
## 6. INT-S & E Series Coaxial Connector

INT-TFA.0S.250.CLADXXZ		
INT-TFA.0S.250.CLADXX		
INT-ZRA.0S.250.CLL		

## 6. INT-S & E Series Coaxial Connector

INT-TFA.1S (Nut for fitting bend relief)		
INT-TFA.1S		
INT-TLA.1S		
INT-ZRA.1S		

## 6. INT-S & E Series Coaxial Connector

INT-TFA.2S.250.CLADXXZ		
INT-TFA.2S.250.CLADXX		
INT-ZRA.2S.250.CLL		
INT-TGG.1E.250.CLADXXZ		
INT-ZGG.1E.250.CLL		

## 6. INT-S & E Series Coaxial Connector

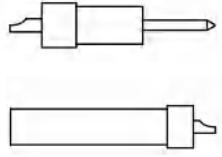
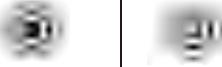
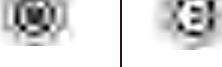
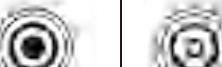
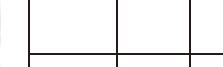
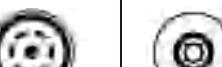
### Cable Collet Size



Code	Cable Collet $\phi A$ (mm)	Cable dia Range		Series				
		Max	Min	00S	0S	1S	2S	1E
27	2.7	2.2	2.7	•		•		
29	2.9	2.4	2.9	•				
32	3.2	2.7	3.2	•	•			
35	3.5	3.1	3.5			•		
40	4.0	3.6	4.0		•	•	•	•
45	4.5	4.1	4.5		•			•
50	5.0	4.6	5.0		•	•		•
60	6.0	5.1	6.0			•		•
62	6.2	5.8	6.2			•		
65	6.5	6.1	6.5			•		
70	7.0	6.6	7.0				•	
80	8.0	7.1	8.0				•	

## 6. INT-S & E Series Coaxial Connector

Coaxial Connector Unipole Layout

					Code	Ohm( $\Omega$ )	$\varnothing$ A(MM)	Solder contact	Voltage standing-wave ratio SWR(f=GHz)	Test voltage (kV/rms)	Work voltage (kV/rms)	Current rate (A)	IP Rating
00			250	50	0.7	1			1.09 +0.11*f/GHz	2.1	0.7	4	IP50
0S			250	50	0.9	1			1.02 +0.25*f/GHz	3.0	1.0	6	IP50
1S			250	50	1.6	1			1.01 +0.23*f/GHz	3.0	1.0	12	IP50
			275	75	1.3	1			1.02 +0.08*f/GHz	2.4	0.8	10	IP50
2S			250	50	2.0	1			1.01 +0.95*f/GHz	3.0	1.0	15	IP50
			275	75	1.6	1			1.02 +0.03*f/GHz	1.5	1.5	12	IP50
1E			250	50	0.9	1			1.09 +0.23*f/GHz	1.0	0.3	6	IP68

## 7. INT-P Series Plastic Connectors

### Plug



INT-P-TAG



INT-P-TAG (Z)



INT-P-TAB (2P)



INT-P-TGG (3P)

### Panel Mount Receptacle



INT-P-ZKG



INT-P-ZKG (elbow)



INT-P-ZLG



INT-P-ZLG



INT-P-ZLG



INT-P-ZLG



INT-P-ZLG



INT-P-ZLG



INT-P-ZKB (2P)



INT-P-ZGG (3P)

### Cable Mount Receptacle



INT-P-ZRG



INT-P-ZRG (Z)

## 7. INT-P Series Plastic Connectors

### Push-Pull Self-Latching Connection System



Drawing	Specification
	<b>Engaging</b> The self-latching system allows the connector to be mated by simply pushing the plug into the receptacle.
	<b>Latched</b> Once firmly latched, the connection cannot be broken by pulling on the cable or any other component part other than the outer release sleeve.
	<b>Disengaging</b> When required, the connector is disengaged by a single axial pull on the outer release sleeve. This first disengage the latches and then withdraws the plug from the socket.

## 7. INT-P Series Plastic Connectors

### P Series Plastic Connector with the Following Main Features

1. Quick push-pull self-latching connection system
2. Solder and PCB (straight and elbow) contacts
3. Keying system (G key standard) for connector alignment
4. Multiple key options to avoid cross mating of similar connectors
5. High-temperature endurable plastic outer shell (-25°C~125°C)
6. High density configuration for saving space
7. Can be sterilization
8. Available custom assembly solutions

### Technical Characteristics

#### Mechanical and Climatical

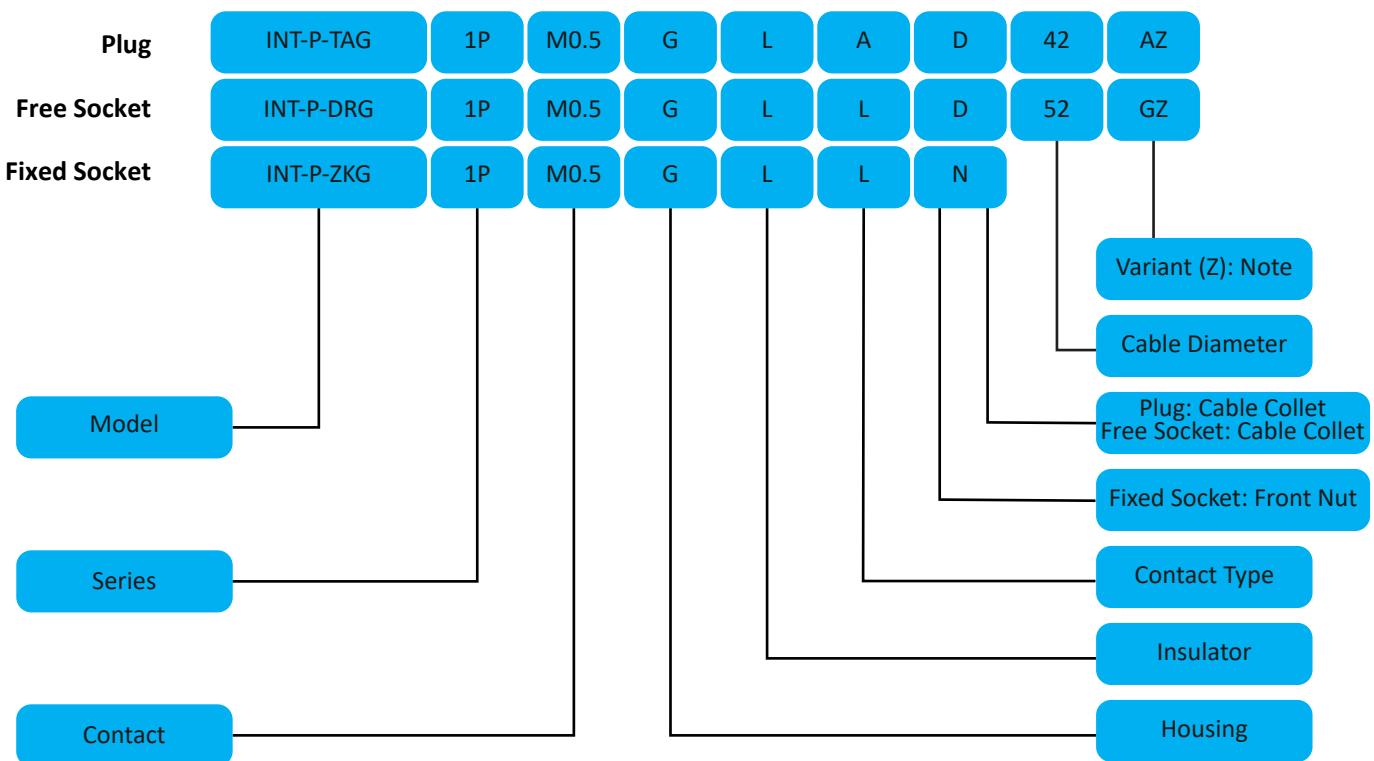
Characteristics	Value	Standard
Endurance	>1000 cycles	IEC 60512-5 test 9a
Humidity	Up to 95% at 60°C	
Temperature Range	-40°C, +150°C	
Resistance to Vibration	10-2000Hz, 15g	IEC 60512-4 test 6d
Shock Resistance	100g, 6ms	IEC 60512-4 test 6c
Salt Spray Corrosion Test	>72h	IEC 60512-6 test 11f
Protection Index (mated)	IP 50	IEC 60529
Climatical category	55/175/21	IEC 60068-1

#### Electrical

Characteristics	Value	Standard
Shielding Efficiency	at 10 MHZ	>75 dB
	at 1 GHZ	>40 dB

## 7. INT-P Series Plastic Connectors

### Part Numbering System



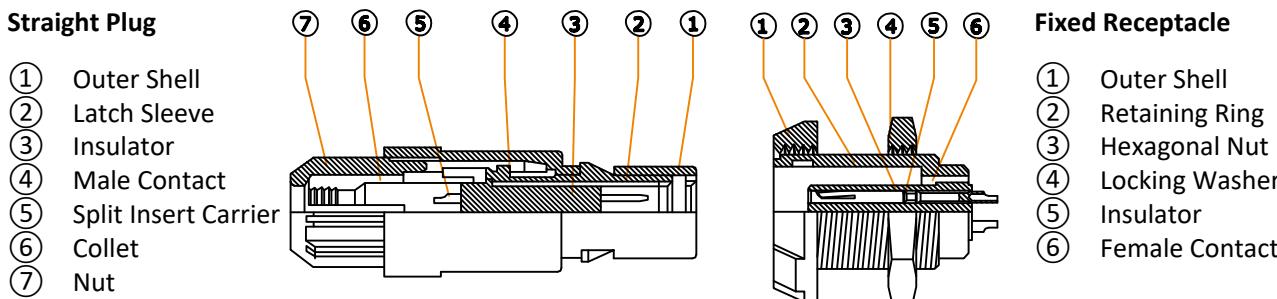
INT-P-TAG.M0.5GL.AC52A = 1P series 5 pins straight plug, G key (alpha=0), PC housing, PPS insulator, 5.2mm cable collet, blue nut.

INT-P-ZRG.M0.5GL.LC52GZ = 1P series 5 pins free receptacle, G key (alpha=0), PC housing, PPS insulator, 5.2mm cable collet, nut for fitting bend relief

INT-P-ZKG.M0.5GL.LN = 1P 5 pins panel mounted socket, G key(alpha=0), PC housing, PPS insulator, female soldering contact type, nut fixed

\*NOTE: To order a model with cable collet and nut for fitting a bend relief, a letter "Z" is in the variant position.

### Part Section Showing Internal Components

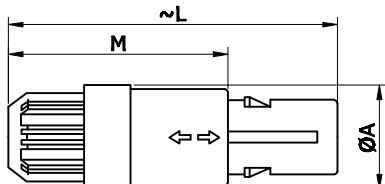


## 7. INT-P Series Plastic Connectors

### Product Size

#### 1P Series:

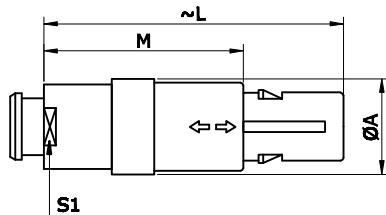
#### INT-P-TAG



Reference		Dimensions (mm)		
Model	Series	A	L	M
INT-P-TAG	1P	14	46.5	32

#### INT-P-TAG(Z)

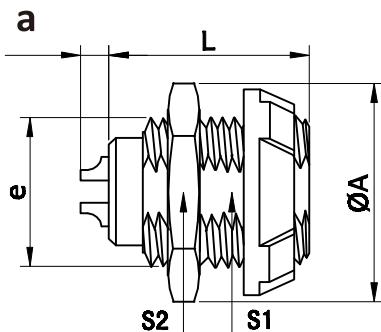
Straight plug, key (G) or keys (A, B, C, H, J), cable collet, nut for fitting a bend relief



Reference		Dimensions (mm)			
Model	Series	A	L	M	S1
INT-P-TAG(Z)	1P	14	45.5	32	9

#### INT-P-ZKG

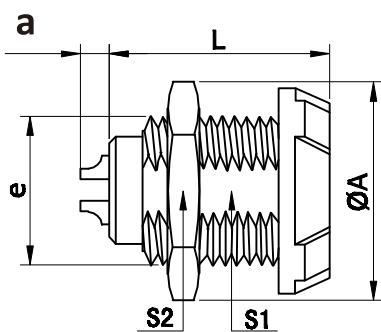
Fixed receptacle with two nuts, key (G) or keys (A, B, C, H, J), back panel mounting



Reference		Dimensions (mm)					
Model	Series	A	L	a	e	S1	S2
INT-P-ZKG	1P	18.5	20.5	2.7	M14* 1.0	12.5	17

#### INT-P-ZLG

Fixed receptacle, all-in-one type, key (G) or keys (A, B, C, H, J), nut fixing

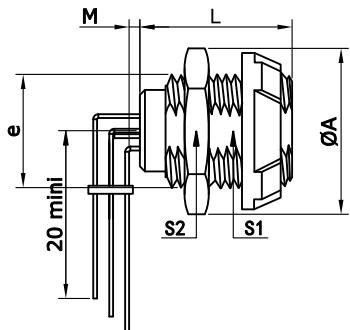


Reference		Dimensions (mm)					
Model	Series	A	L	a	e	S1	S2
INT-P-ZLG	1P	19.5	20.5	2.7	M14* 1.0	12.5	17

## 7. INT-P Series Plastic Connectors

**INT-P-ZKG(elbow)**

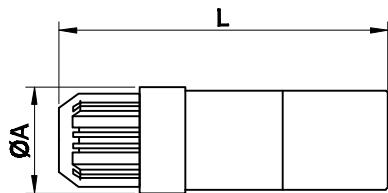
Fixed receptacle, key (G) or keys (A, B, C, H, J), elbow 90° contact for printed circuit



Reference		Dimensions (mm)					
Model	Series	A	L	M	e	S1	S2
INT-P-ZKG(elbow)	1P	19.5	20.5	2.0	M14 * 1.0	12.5	17.0

**INT-P-ZRG**

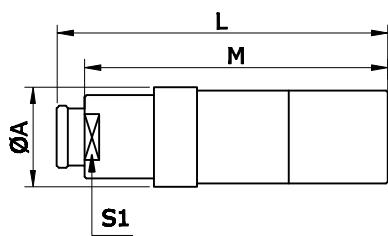
Free cable mount receptacle, key (G) or keys (A, B, C, H, J), cable collet



Reference		Dimensions (mm)	
Model	Series	A	L
INT-P-ZRG	1P	14	40

**INT-P-ZRG(Z)**

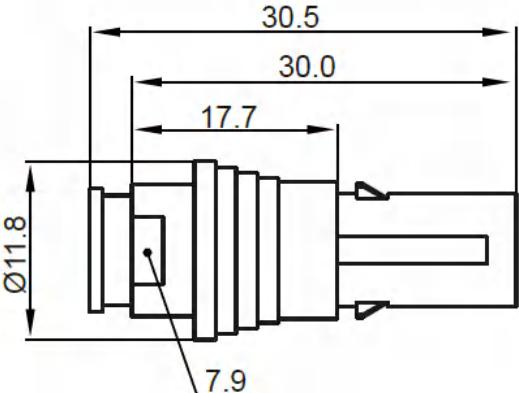
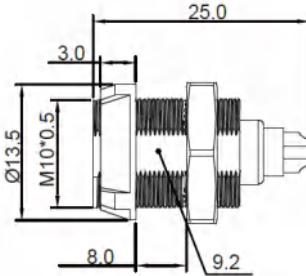
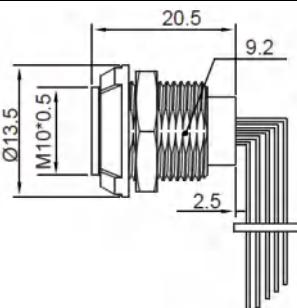
Free cable mount receptacle, key (G) or keys (A, B, C, H, J), cable collet, nut for fitting a bend relief



Reference		Dimensions (mm)			
Model	Series	A	L	M	S1
INT-P-ZRG(Z)	1P	14	43	38.7	9

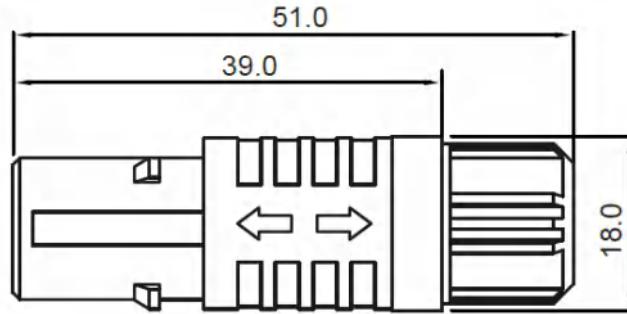
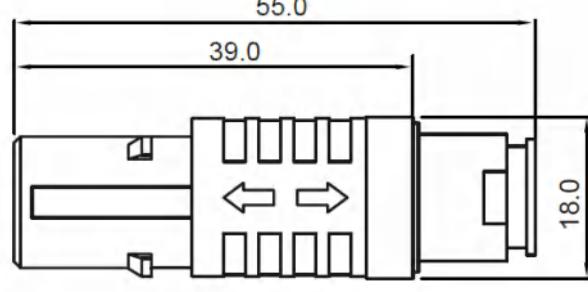
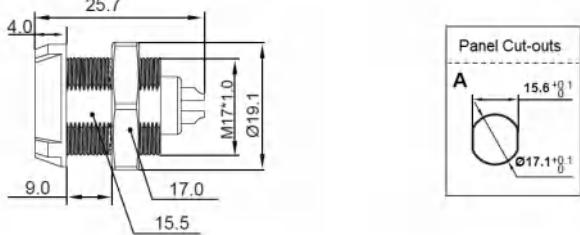
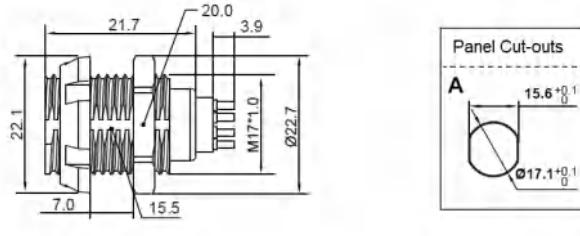
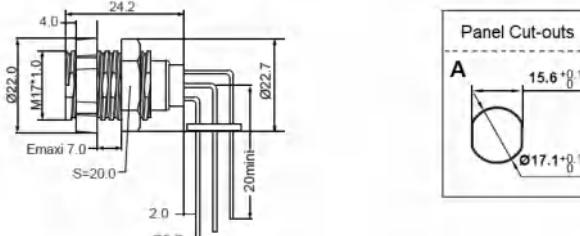
## 7. INT-P Series Plastic Connectors

OP Series

Part Number	Product Photo	Size
INT-P-TAG		
INT-P-ZKG		 <div style="margin-top: 10px;"> <b>Panel Cut-outs</b>  <b>A</b>  <math>9.3^{+0.1}_0</math>  <math>\varnothing 10.1^{+0.1}_0</math> </div>
INT-P-ZKG(elbow)		 <div style="margin-top: 10px;"> <b>Panel Cut-outs</b>  <b>A</b>  <math>9.3^{+0.1}_0</math>  <math>\varnothing 10.1^{+0.1}_0</math> </div>

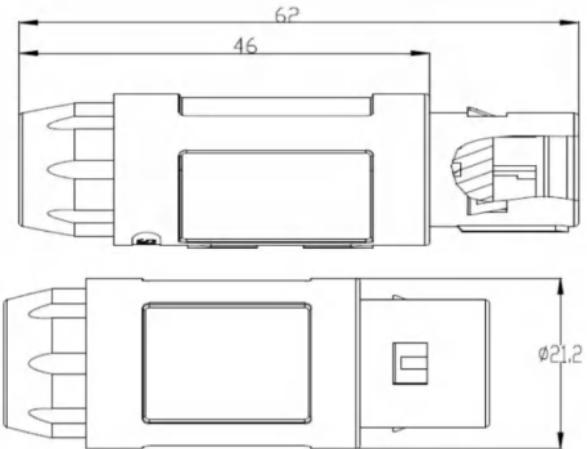
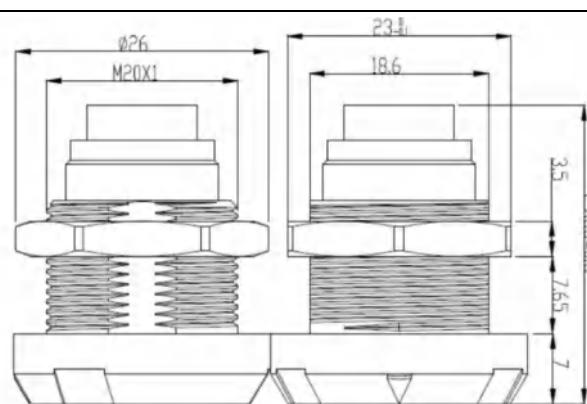
## 7. INT-P Series Plastic Connectors

2P Series

Part Number	Product Photo	Size
INT-P-CAB		
INT-P-CAB		
INT-P-ZLB		
INT-P-ZKB		
INT-P-ZKB(elbow)		

## 7. INT-P Series Plastic Connectors

3P Series

Part Number	Product Photo	Size
INT-P-TGG		
INT-P-ZKG		

## 7. INT-P Series Plastic Connectors

### Alignment Key and Polarized Keying System

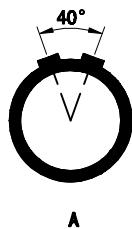
#### 1P Series

Keying (plug front view)						
Key Code	G	A	B	C	H	J

Alignment keys:



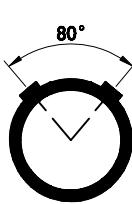
G = standard key



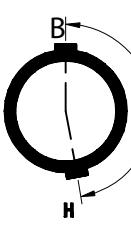
A = two keys with 40 degree



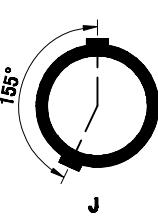
B = two keys with 60 degree



C = two keys with 80 degree



H = two keys with 170 degree

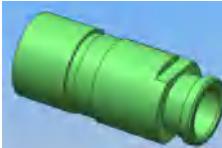


J = two keys with 155 degree

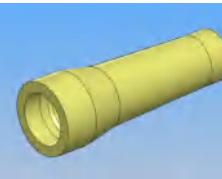
Keying (plug front view)			
Key Code	0P	2P	3P

## 7. INT-P Series Plastic Connectors

### Collet Nut Code

	Code	Color		Code	Color
	G	Gray		N	Black
	A	Blue		R	Red
	J	Yellow		V	Green
	Code	Color		Code	Color
	G	Gray		N	Black
	A	Blue		R	Red
	J	Yellow		V	Green
	Code	Color		Code	Color
	G	Gray		N	Black
	A	Blue		R	Red
	J	Yellow		V	Green
	Code	Color		Code	Color
	G	Gray		N	Black
	A	Blue		R	Red
	J	Yellow		V	Green
	Code	Color		Code	Color
	G	Gray		N	Black
	A	Blue		R	Red
	J	Yellow		V	Green

### Bend Relief Code

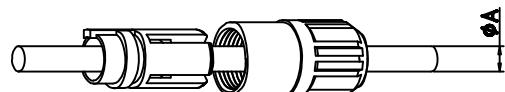
	Code	Color		Code	Color
	G	Gray		V	Green
	A	Blue		W	White
	J	Yellow		B	Brown
	N	Black		O	Orange
	R	Red		I	Beige

## 7. INT-P Series Plastic Connectors

### Bend Relief Size

Size	$\varnothing A$	AWG	
		$\varnothing B(\text{Max.})$	$\varnothing B(\text{Min.})$
0P	4.0	3.9	2.7
	5.0	4.9	3.7
1P	4.2	4.1	3.0
	5.2	5.1	4.0
	5.7	5.6	4.5
	6.5	6.4	5.2
2P	5.2	5.1	4.0
	7.2	7.1	6.0
	8.0	7.9	6.8
	9.0	8.9	7.8
3P	10.0	9.0	10.0

### Cable Collet Size



Cable Clamp Set	$\phi A(\text{mm})$	Cable $\phi(\text{mm})$	
		Min	Max
1P-039	3.9	2.7	3.9
1P-052	5.2	4.0	5.2
1P-065	6.5	5.3	6.5

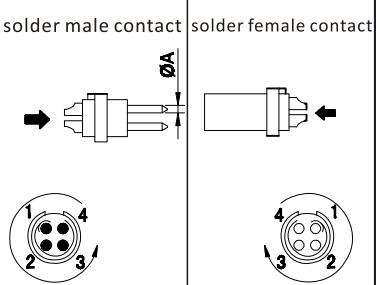
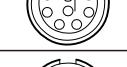
Size	$\varnothing A$	AWG min~max	Size	$\varnothing A$	AWG min~max
2P	52	3.3~5.2mm		40	2.7~3.9mm
	72	5.3~7.2mm		50	3.7~4.9mm
	92	7.3~9.2mm		10	9.0~10.0mm

## 7. INT-P Series Plastic Connectors

### INT-P Series Multipole Layout

Series	Insulator	Pin Array		$\phi_A$ (mm)	Contact resistance (mΩ)	Related current (A)	Test voltage (V)	Test current (V)
		Solder male contact	Solder female contact					
OP	02			0.9	6	10	1000	450
	03			0.9	6	8	875	400
	04			0.7	7.5	7	875	300
	05			0.7	7.5	6.5	750	350
	06			0.5	10	2.5	750	300
	07			0.5	10	2.5	750	250
	09			0.5	10	2	600	200

## 7. INT-P Series Plastic Connectors

IP			Insulator	Contact No.	$\varnothing A(MM)$	Solder contact	Contact tape		Test voltage(contact -shell) k/v rms	Test voltage(contact -contact) k/v rms	Rated current/A
	PCB straight contact	PCB elbow contact					PCB straight contact	PCB elbow contact			
			02	2	1.3	●	●	●	1.30	1.10	10.0
			03	3	1.3	●	●	●	1.30	1.10	10.0
			04	4	0.9	●	●	●	1.35	1.45	10.0
			05	5	0.9	●	●	●	1.25	1.15	9.0
			06	6	0.7	●	●	●	1.05	1.20	7.0
			07	7	0.7	●	●	●	0.95	1.05	7.0
			08	8	0.7	●	●	●	0.95	1.15	5.0
			09	9	0.5	●	●	●	0.85	1.20	3.0
			10	10	0.5	●	●	●	0.90	1.50	2.5
			14	14	0.5	●	●	●	0.80	1.20	2.0

## 7. INT-P Series Plastic Connectors

Series	Insulator	Pin Array		$\varnothing A$ (mm)	Contact resistance (mΩ)	Related current (A)	Test voltage (V)	Test current (V)
		Solder male contact	Solder female contact					
2P	02			2.0	3	30	1650	600
	03			1.6	4	17	1800	600
	04			1.3	5	15	1800	500
	05			1.3	5	14	1500	500
	06			1.3	5	12	1500	550
	07			1.3	6	11	1680	400
	08			0.9	6	10	1200	400
	10			0.9	7.5	8	1200	450
	12			0.7	7.5	7	1350	400
	16			0.7	7.5	6	1200	400
	18			0.7	7.5	6	1200	400
	19			0.7	7.5	6	1200	400
	26			0.5	8	5.5	1200	400

## 7. INT-P Series Plastic Connectors

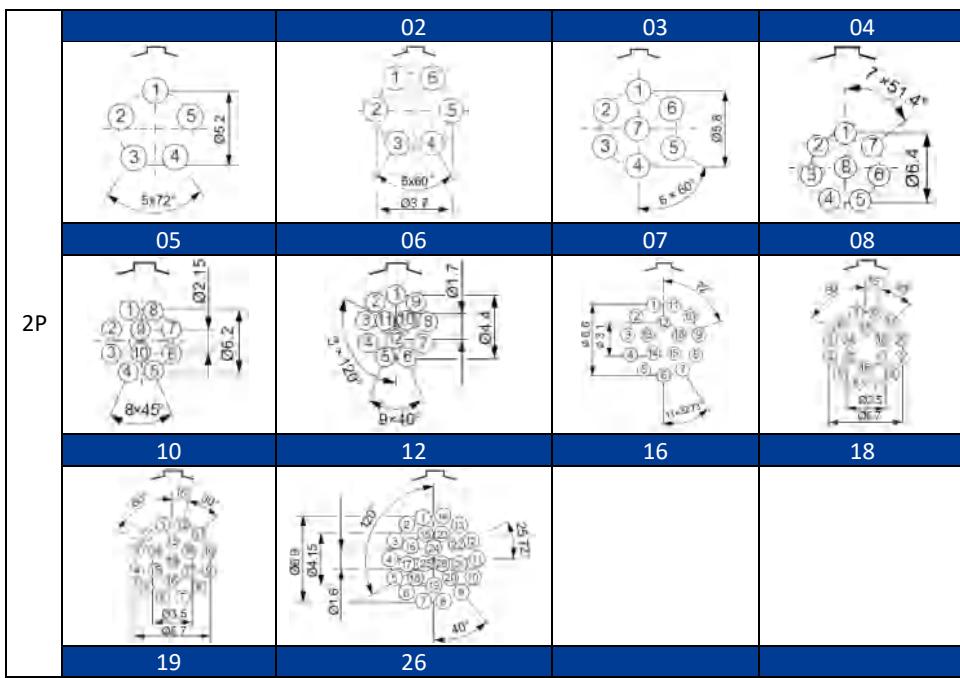
P Series Panel Holes Dimension

A	B	Ref	A	B
		Size		
		01	14.0	12.6
		02	17.0	15.6

Panel Cut-out for Straight PCB Contacts

Size	Pin Array			
0P				
09				

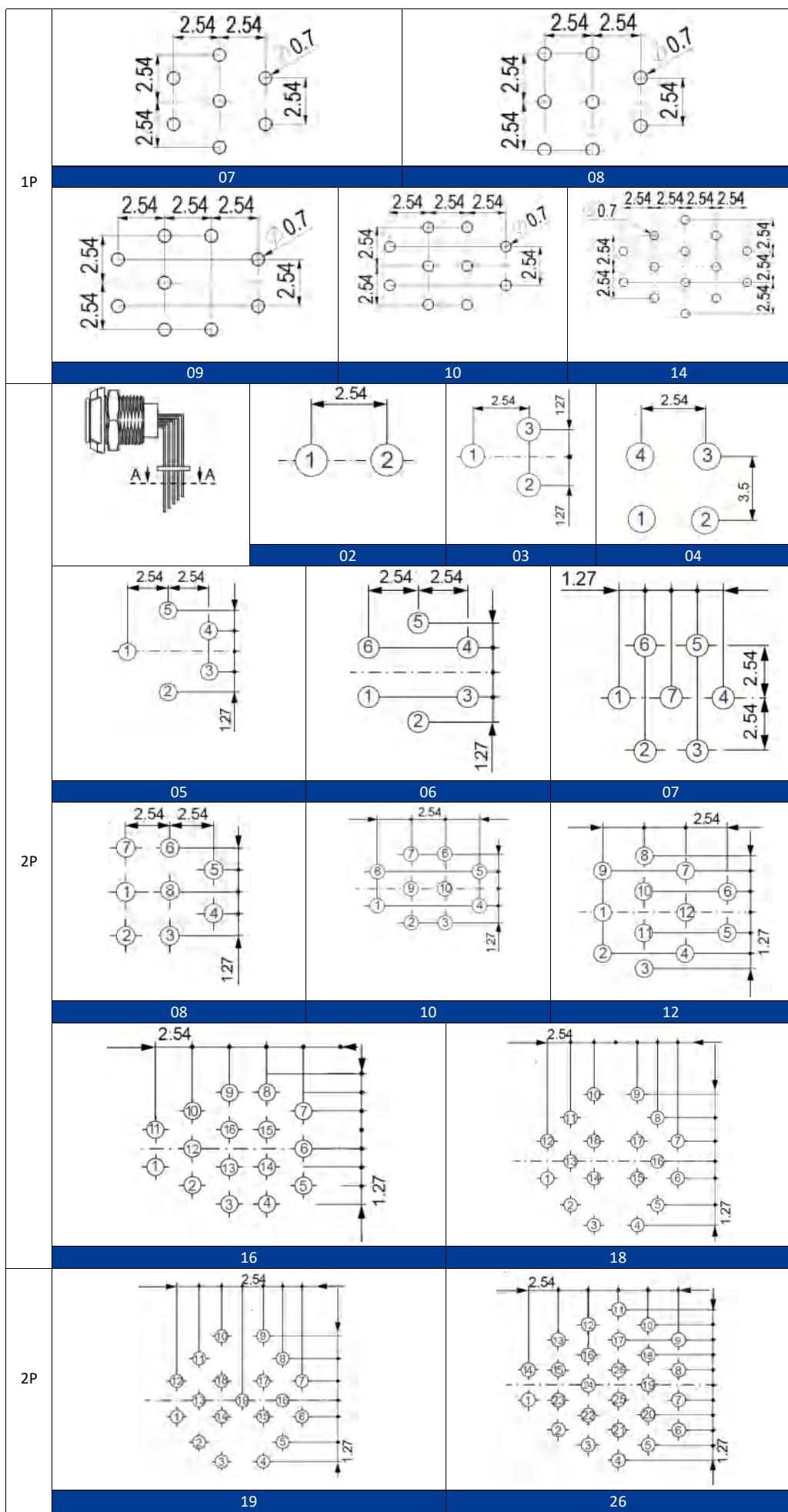
## 7. INT-P Series Plastic Connectors



Panel Cut-out for 90° Elbow Contacts

Size	Pin Array		
0P			
07			
1P			
05			

## 7. INT-P Series Plastic Connectors



## 8. INT-B & K Series Hybrid Connector

### Plug (Fluidic)



### Receptacle (Fluidic)



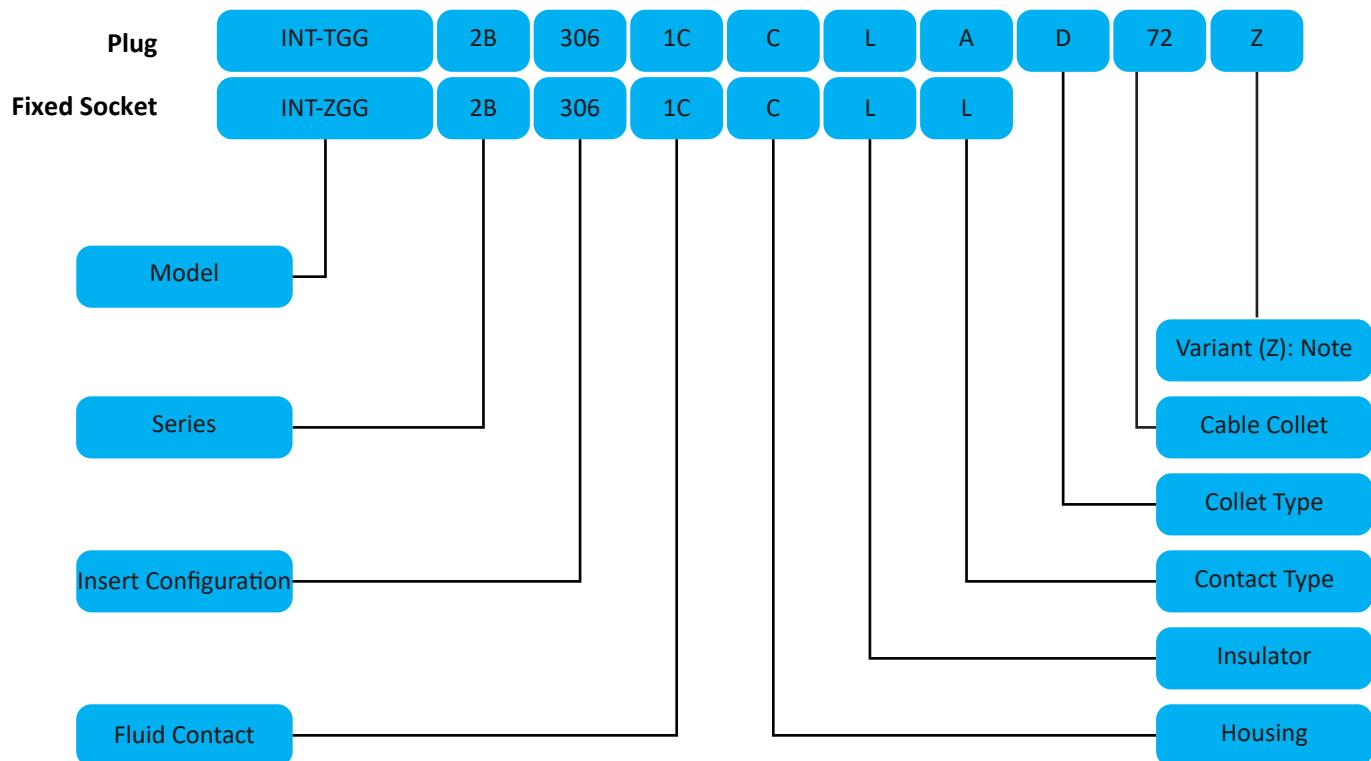
### Hybrid Fluidic Connector with the Following Main Features

1. Security of the original Push-Pull self-latching system.
2. The alignment key (G, A, B, C) ensures excellent repeatability of performance during frequent matings.
3. The P1 fluid contact mixed low voltage contacts allow hybrid configuration in the 2B and 3B series.
4. The possible outer cable diameters range from 4.0 to 11.0mm

The P1 fluidic contact has been designed to work in the 2B to 3B series. This kind of fluidic connector is used for medical and dentistry equipment. The connector is of the monotube type and primarily intended for use with air or inert gas.

## 8. INT-B & K Series Hybrid Connector

### Part Numbering System



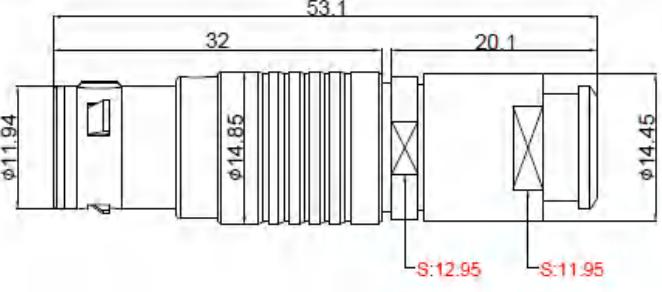
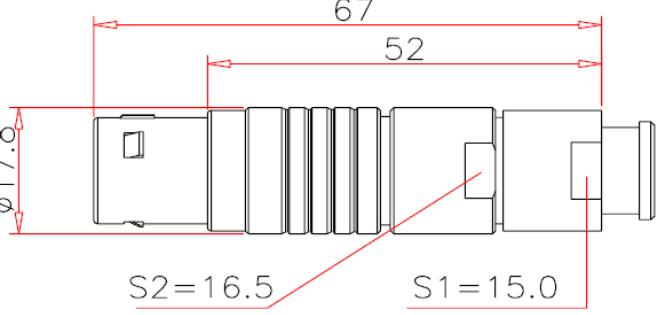
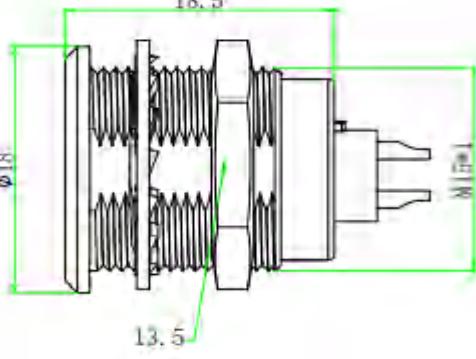
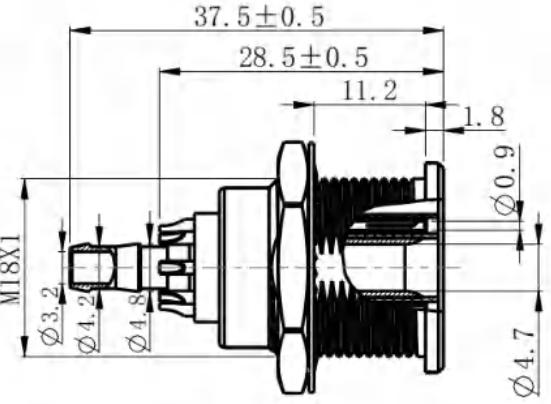
INT-TGG.2B.306+1C.CLAD72Z = Straight plug with key (G), 2B series, mixed type to accept one P1 fluid contact and 6 low voltage electrical contacts, chrome-plated brass housing, PPS insulator, collet system to suit a 7.2mm diameter cable, and a nut for fitting a bend relief.

INT-ZGG.2B.306+1C.CLL = Fixed socket with key (G), 2B series, mixed type to accept one P1 fluid contact and 6 low voltage electrical contacts, chrome-plated brass housing, PPS insulator, nut fixing

\*NOTE: To order a model with cable collet and nut for fitting a bend relief, a letter "Z" is in the variant position.

## 8. INT-B & K Series Hybrid Connector

### Product Size

Part Number	Product Photo	Size
INT-TGG.2B		
INT-TGG.3B		
INT-ZGG.2B		
INT-ZGG.3B		

## 8. INT-B & K Series Hybrid Connector

IP50 Plug (Coaxial)



INT-TGG (Z)

IP68 Plug (Coaxial)



INT-TGG (Z)



INT-TGG

IP50 Receptacle (Coaxial)



INT-ZCG

IP68 Receptacle (Coaxial):



INT-TGG

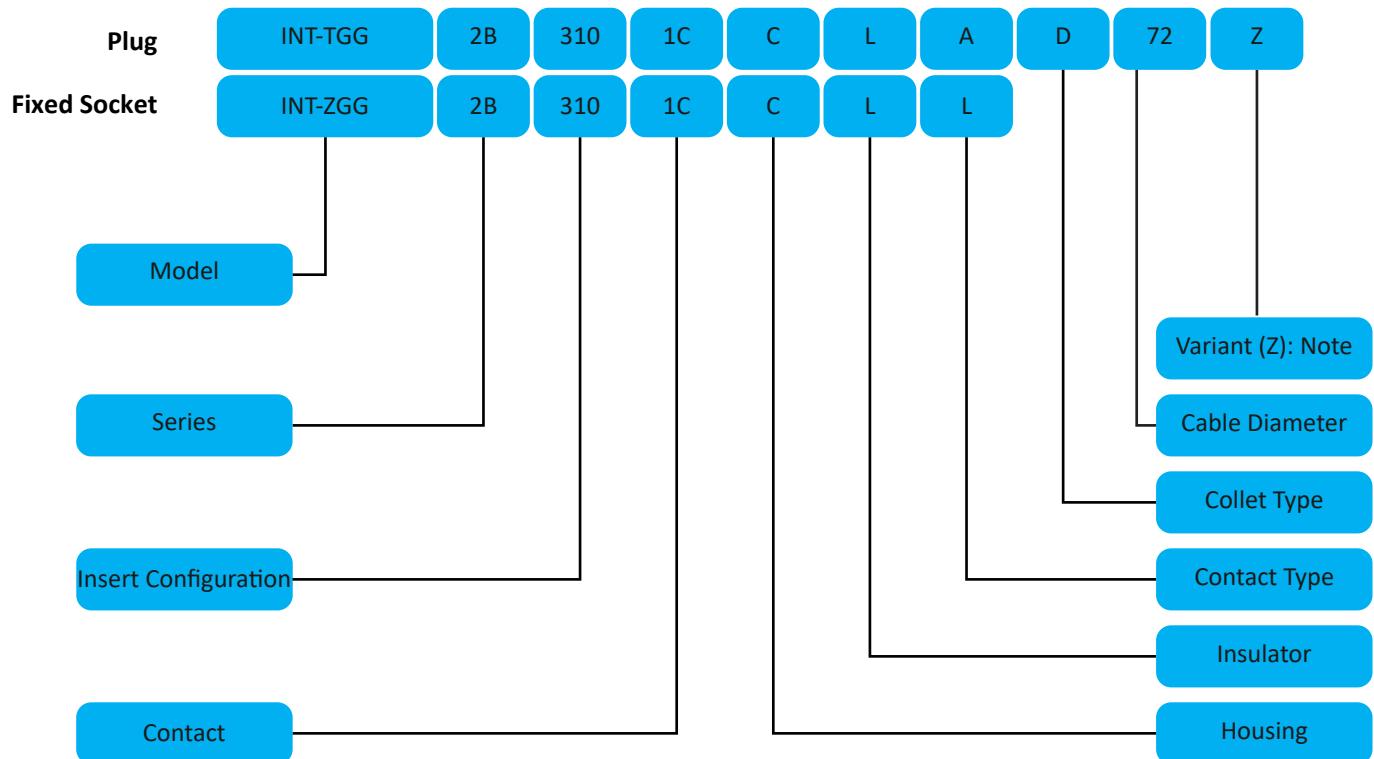
### Hybrid Coaxial Connector with the Following Main Features

1. Fast push-pull self-locking connection
2. Ease of installation
3. High density mixed insert configuration for saving space
4. Keying system («G» key standard) for connector alignment
5. 360° screening for full EMC shielding
6. Rugged housing for extreme working conditions
7. Available custom cable assembly
8. Combined transmission of various media in one interface: electrical (signals, power, data)

The coaxial contact mixed low voltage contacts insert has been designed to work in the 2B and 2K series. Smaller, lighter, more powerful hybrid connectors, what apply for end devices in the areas of industry, medical technology, as well as test and measurement is also a key requirement for the connecting interfaces and transmission infrastructure. They are suited for use in harsh environments while ensuring high numbers of mating cycles.

## 8. INT-B & K Series Hybrid Connector

### Part Numbering System



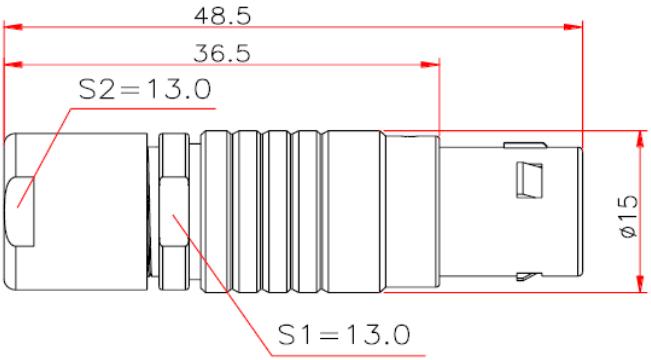
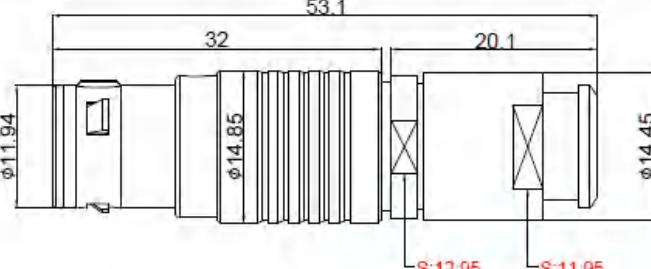
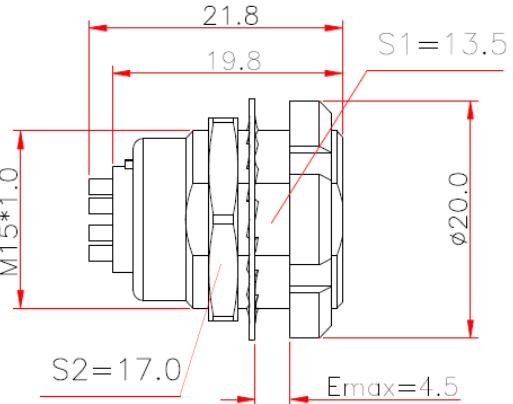
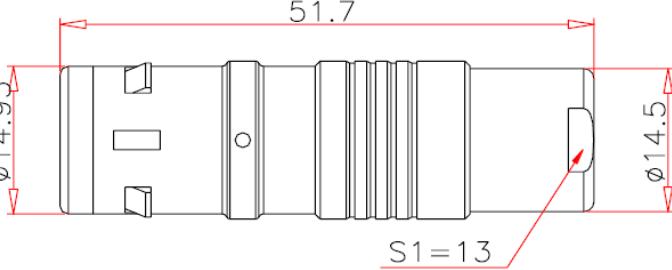
INT-TGG.2B.310+1C.CLADXXZ = Straight plug with key (G), 2B series, coaxial contact and 10 low voltage electrical contacts, chrome-plated brass housing, PPS insulator, collet system to suit a 6.1 to 9.0 mm diameter cable, and a nut for fitting a bend relief.

INT-ZGG.2K.310+1C.CLL = Waterproof fixed socket with key (G), 2K series, mixed type to accept one coaxial contact and 10 low voltage electrical contacts, chrome-plated brass housing, PPS insulator, nut fixing.

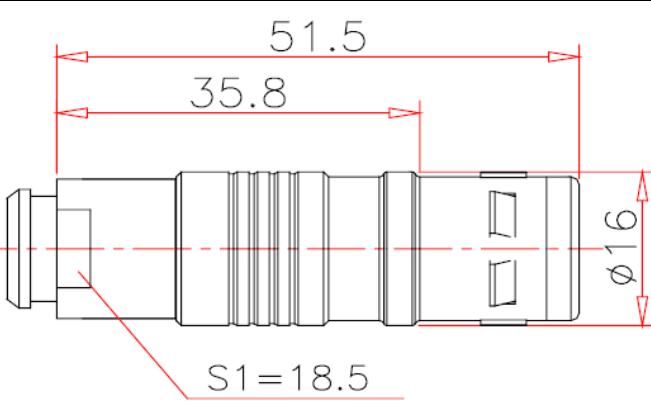
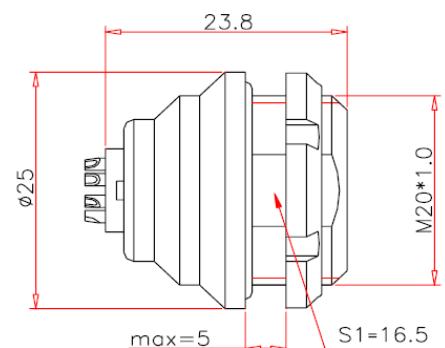
\*NOTE: To order a model with cable collet and nut for fitting a bend relief, a letter "Z" is in the variant position.

## 8. INT-B & K Series Hybrid Connector

### Product Size

Part Number	Product Photo	Size
INT-TGG.2B		
INT-TGG.2B		
INT-ZCG.2B		
INT-TGG.2K		

## 8. INT-B & K Series Hybrid Connector

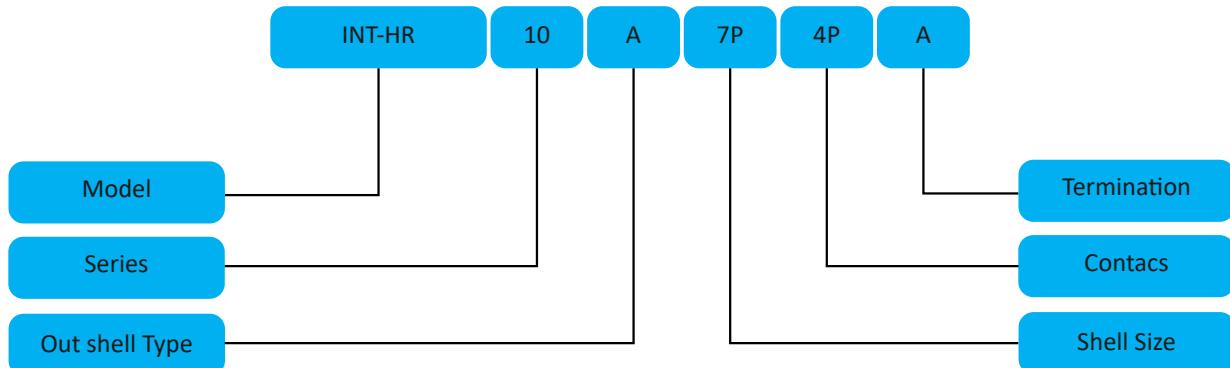
Part Number	Product Photo	Size
INT-TGG.2K		
INT-ZEG.2K		

# 9. INT-HR10 Series Miniature Camera Connector

## HR10 Series Connector with the Following Main Features

1. Push-pull coupling mechanism assures easy and quick connecting & disconnecting.
2. Smart design, well-balanced, simplified layout in the limited space.
3. Straight solder contacts, PCB contacts.
4. Five-key system permits only one way of coupling when blind mating.
5. Series of multi-core, high-density installation space-saving.
6. Easy wiring and mounting, no use of screws make wiring and mounting easier.

## Part Numbering System



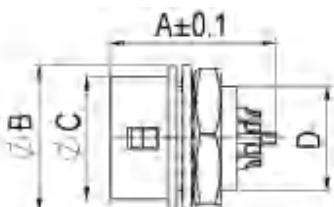
## Technical Characteristics

No.	Out Shell Size Pin Array Specification	01			02				
		4	6	7	7	10	12		
1.	Contact Diameter (mm)	0.6			0.8	0.6			
2	Contact Resistance (mΩ)	10			6.5	10			
3.	Working Voltage (KV/DC)	0.3			0.45	0.3			
	Working Voltage (KV/AC)	0.2			0.35	0.2			
4.	Experimental Voltage (KV/DV)	0.9			1.2	0.9			
	Experimental Voltage (KV/AV)	0.5			0.8	0.5			
5.	Working Current (A)	2			3.5	2			
6.	Work temperature (°C)	-40°C~125°C							
7.	Lifetime	1000 times							

## 9. INT-HR10 Series Miniature Camera Connector

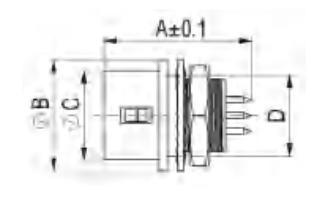
### Product Size

### Fixed Socket with Solder Pin

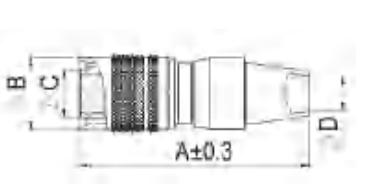
Size	Item NO.	Pin Array	A	B	C	D
01	INT-HR10A-7R-4S(73)	4	14	11	8.85	M8*0.5
	INT-HR10A-7R-6S(73)	6	14	11	8.85	M8*0.5
	INT-HR10A-7R-7S(73)	7	14	11	8.85	M8*0.5
02	INT-HR10A-10R-7S(73)	7	16	14	11.9	M11*0.75
	INT-HR10A-10R-10S(73)	10	16	14	11.9	M11*0.75
	INT-HR10A-10R-12S(73)	12	16	14	11.9	M11*0.75

### Fixed Receptacle with PCB Pin

Size	Item NO.	Pin Array	A	B	C	D
01	INT-HR10A-7R-4SA(73)	4	15.5	11	8.85	M8*0.5
	INT-HR10A-7R-6SA(73)	6	15.5	11	8.85	M8*0.5
	INT-HR10A-7R-7SA(73)	7	15.5	11	8.85	M8*0.5
02	INT-HR10A-10R-7SA(73)	7	15.5	14	11.9	M11*0.75
	INT-HR10A-10R-10SA(73)	10	15.5	14	11.9	M11*0.75
	INT-HR10A-10R-12SA(73)	12	15.5	14	11.9	M11*0.75

### Plug with Solder Pin

Size	Item NO.	Pin Array	A	B	C	D
01	INT-HR10A-7P-4P(73)	4	35.5	11	8.85	5
	INT-HR10A-7P-6P(73)	6	35.5	11	8.85	5
	INT-HR10A-7P-7P(73)	7	35.5	11	8.85	5
02	INT-HR10A-10P-7P(73)	7	44	14	11.9	7
	INT-HR10A-10P-10P(73)	10	44	14	11.9	7
	INT-HR10A-10P-12P(73)	12	44	14	11.9	7

## 9. INT-HR10 Series Miniature Camera Connector

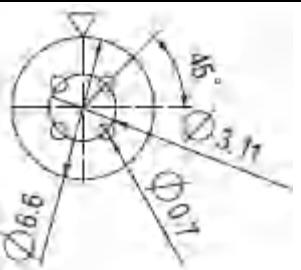
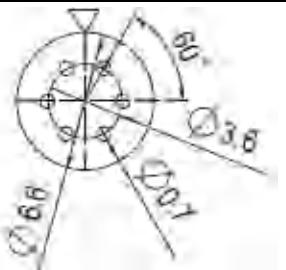
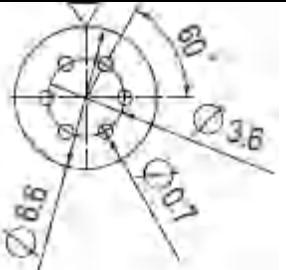
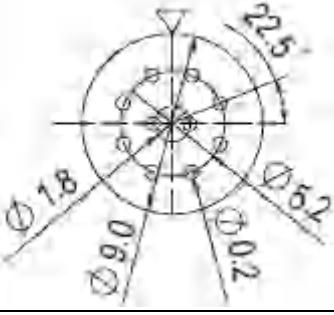
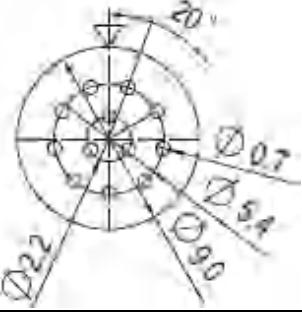
**Free Receptacle with Solder Pin**

Size	Item NO.	Pin Array	A	B	C	D
01	INT-HR10A-7R-4J(73)	4	35.5	11	8.85	5
	INT-HR10A-7R-6J(73)	6	35.5	11	8.85	5
	INT-HR10A-7R-7J(73)	7	35.5	11	8.85	5
02	INT-HR10A-10R-7J(73)	7	44	14	11.9	7
	INT-HR10A-10R-10J(73)	10	44	14	11.9	7
	INT-HR10A-10R-12J(73)	12	44	14	11.9	7

**Panel Holes Dimension for Fixed Receptacle**

Drawing	Size	A	B	C	D
	01	1.6	7.3	8.1	9.0
	02	2.5	10.1	11.1	12

**PCB Drilling Pattern**

Size	Pin Array		
01			
	04	06	07
02			
	07	10	12

# 10. INT-BP Series Fluidic Connector

## Metal Fluidic Connector



INT-BP12



INT-BP15



INT-BP15-16



INT-BP44

## Metal Fluidic Connector with the Following Main Features

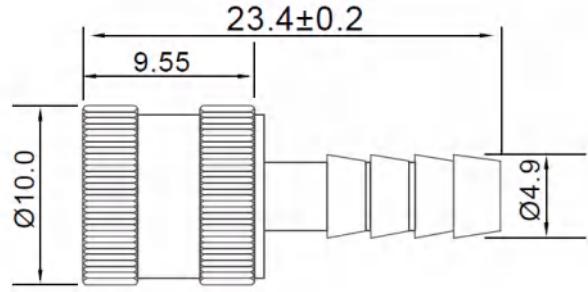
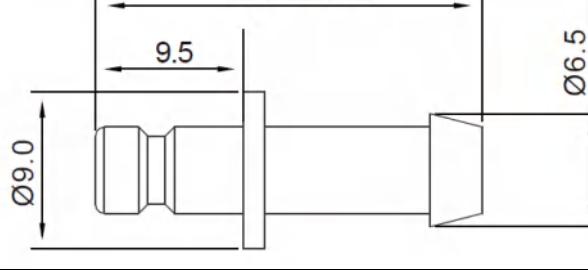
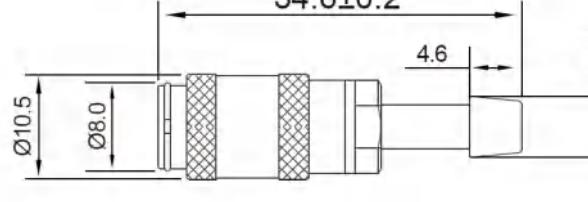
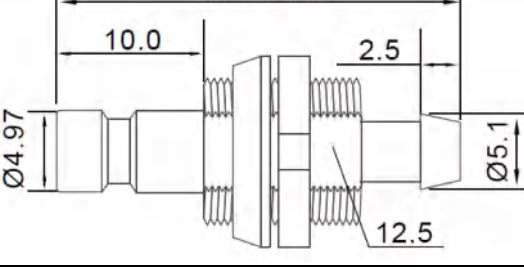
NIBP connectors are widely used in medical appliances, instruments and industries with wind (water) piping interconnection. They can be realized fast connection and disconnection.

## Technical Specifications

Tube Diameter	5.00mm or 4.00mm
Work Temperature	-20°C ,+120°C
Certifications	RoHS compliant
Material Connector	Copper alloy housing, nickel plating
Connection	Quick connect and disconnect (Bayonet)
Life Cycles	1000 times

## 10. INT-BP Series Fluidic Connector

### Product Size

Part Number	Product Photo	Size
INT-BP44		
INT-BP12		
INT-BP15		
INT-BP15-16		

## 10. INT-BP Series Fluidic Connector

### Plastic Fluidic Connector



INT-P-TAG



INT-P-TAG(Z)



INT-P-ZKG

### Plastic Fluidic Connector with the Following Main Features

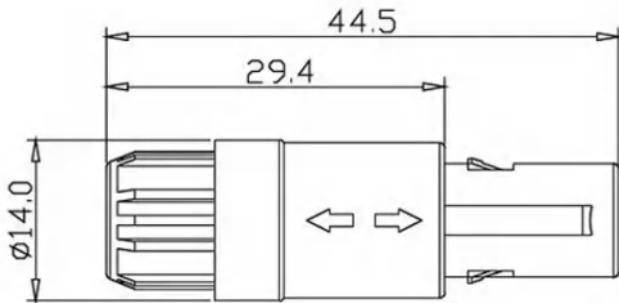
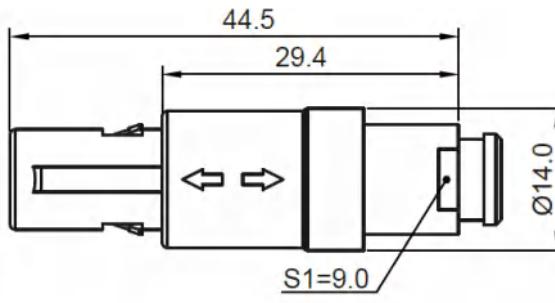
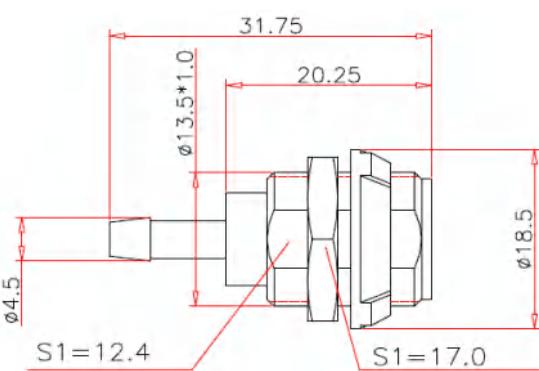
1. Quick push-pull self-latching connection system
2. Fluidic contacts
3. Can be sterilization
4. Keying system (G key standard) for connector alignment
5. High-temperature endurable plastic out shell (-25°C~125°C)
6. Available custom cable assembly solutions

### Technical Specifications

Shell Style/Model	1P (Plastic (Mechanical Keying))
Housing Material	PC
Insulator Material	PPS
Tube Inner Diameter	4mm
Docking Metal Head Diameter	4.5mm, with slot
Life Cycles	Max. Mating: 1000 times
Air Leakage	Volume 500ml <sup>3</sup> , pressure 400mmHg, leakage is less than 6mmHg within 3min.
Salt Spray	> 144hrs
Temp (min)	-20°C
Temp (max)	125°C
Humidity (max)	<=95% [at 60°C / 140 F]
Vibration	15 g [10 Hz - 2000 Hz]
Shock Resistance	100 g [6 ms]

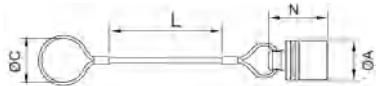
## 10. INT-BP Series Fluidic Connector

### Product Size

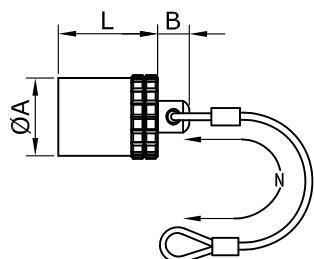
Part Number	Product Photo	Size
INT-TAG.A0.1GZ.ZC65G		
INT-TAG.A0.1GZ.ZC65GZ		
INT-ZKG.A0.1GZ.ZG		

# 11. Accessories

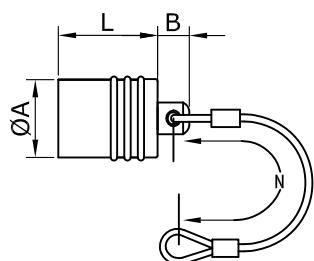
## Dust Cap for Plug



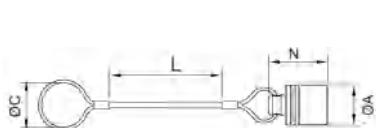
Reference		Dimensions (mm)			
Model	Series	A	L	N	ØC
INT-BFG-0B-100-NAS	0B	10	65	17	8
INT-BFG-1B-100-NAS	1B	12	75	17	10
INT-BFG-2B-100-NAS	2B	15	80	18	13
INT-BFG-3B-100-NAS	3B	19	95	23	16



Reference		Dimensions (mm)			
Model	Series	A	B	L	N
INT-BFG-0K-100-NAS	0K	14.0	6	12.5	85
INT-BFG-1K-100-NAS	1K	16	6	15.5	85
INT-BFG-2K-100-NAS	2K	19.5	6	17.5	85
INT-BFG-3K-100-NAS	3K	23.0	6	22.0	120

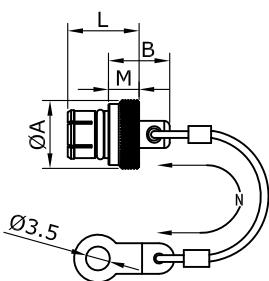


Reference		Dimensions (mm)			
Model	Series	A	B	L	N
INT-BFG-0F-200-NAS	0F	9.8	4	12.5	65
INT-BFG-1F-200-NAS	1F	12	4	13.5	85
INT-BFG-15F-200-NAS	1.5F	14	4	12.5	85
INT-BFG-2F-200-NAS	2F	16	4	15	120

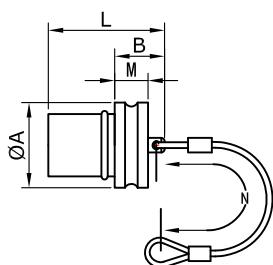


Reference		Dimensions (mm)			
Model	Series	A	L	N	ØC
INT-BFG-0S-100-NAS	0S	10	65	17	8
INT-BFG-1S-100-NAS	1S	12	75	17	10
INT-BFG-2S-100-NAS	2S	15	80	18	13

## Dust Cap for Receptacle

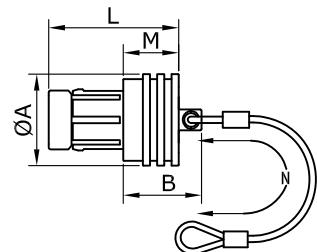


Reference		Dimensions (mm)				
Model	Series	A	B	L	M	N
INT-BRE-00-200-NAS	00	7.5	7.5	8.8	3.5	60
INT-BRE-0*-200-NAS	0S-0B	9.5	9.5	10.5	4.5	85
INT-BRE-1*-200-NAS	1S-1B	11.0	11.0	15.5	5.0	85
INT-BRE-2*-200-NAS	2S-2B	12.0	12.0	14.0	6.0	85
INT-BRE-3*-200-NAS	3S-3B	14.0	14.0	18.0	8.0	120

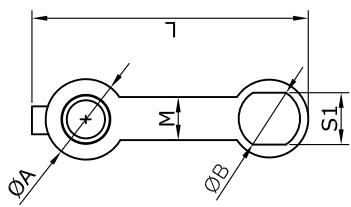


Reference		Dimensions (mm)				
Model	Series	A	B	M	L	N
INT-BRE-0K-200-NAS	0K	15	7	4	15	85
INT-BRE-1K-200-NAS	1K	17	5.8	6	20	85
INT-BRE-2K-200-NAS	2K	20.5	5.8	8	24	85

## 11. Accessories



Reference		Dimensions (mm)				
Model	Series	A	B	L	M	N
INT-BRE-0F-200-NAS	0F	10	7	12.8	3	60
INT-BRE-1F-200-NAS	1F	14	12	23.4	8.5	85
INT-BRE-15F-200-NAS	1.5F	14	11.7	21.6	8.5	85



Reference		Dimensions (mm)				
Model	Series	A	B	L	M	S1
INT-BRP-0B-200-NAS	0B	11.9	9.0	40	6.3	8.0
INT-BRP-1B-200-NAS	1B	14.1	12.0	60	7.2	10.5
INT-BRP-2B-200-NAS	2B	16.1	15.0	60	7.2	13.5

### Bend Relief



INT-GMA

### Main Characteristics:

**Material:** TPU (Thermoplastic Polyurethane)

**Temperature Range in Dry Atmosphere:** -60°C +200°C

Shell Size	Cable φ		Dimension (mm)		Part Number
	min	max	A	L	
00	2.8	3.1	2.8	22	INT-GMA.0*.028.DN
0B	2.5	3.0	3.0	24	INT-GMA.0*.030.DN
	3.0	3.5	3.5	24	INT-GMA.0*.035.DN
	3.5	4.0	4.0	24	INT-GMA.0*.040.DN
	3.7	4.2	4.2	24	INT-GMA.0*.042.DN
	4.0	4.5	4.5	24	INT-GMA.0*.045.DN
	4.5	5.0	5.0	24	INT-GMA.0*.050.DN
1B	3.5	4.0	4.0	30	INT-GMA.1*.040.DN
	4.0	4.5	4.5	30	INT-GMA.1*.045.DN
	4.5	5.0	5.0	30	INT-GMA.1*.050.DN
	5.5	6.0	6.0	30	INT-GMA.1*.060.DN
2B	4.5	5.0	5.0	36	INT-GMA.2*.050.DN
	5.5	6.0	6.0	36	INT-GMA.2*.060.DN
	6.50	7.0	7.0	36	INT-GMA.2*.070.DN
	7.5	8.0	8.0	36	INT-GMA.2*.080.DN
3S	4.5	5.0	5.0	42	INT-GMA.3*.050.DN
	5.5	6.0	6.0	42	INT-GMA.3*.060.DN
	6.5	7.0	7.0	42	INT-GMA.3*.070.DN
	7.5	8.0	8.0	42	INT-GMA.3*.080.DN
	8.5	9.0	9.0	42	INT-GMA.3*.090.DN
	9.5	10.0	10.0	42	INT-GMA.3*.010.DN

#### Note:

The letter «N» of the part number indicates black color bend relief. For ordering a bend relief with another color, replace the letter «N» with the code of the required color.

A bend relief made from thermoplastic polyurethane can be fitted over INTE-AUTO plugs and cable receptacles that are supplied with nuts for fitting such bend relief. They are available in eight different colors. Each color has the code listed below.

## 11. Accessories

Code	Color	Code	Color
A	Blue	M	Brown
B	White	N	Black
G	Gray	R	Red
J	Yellow	S	Orange

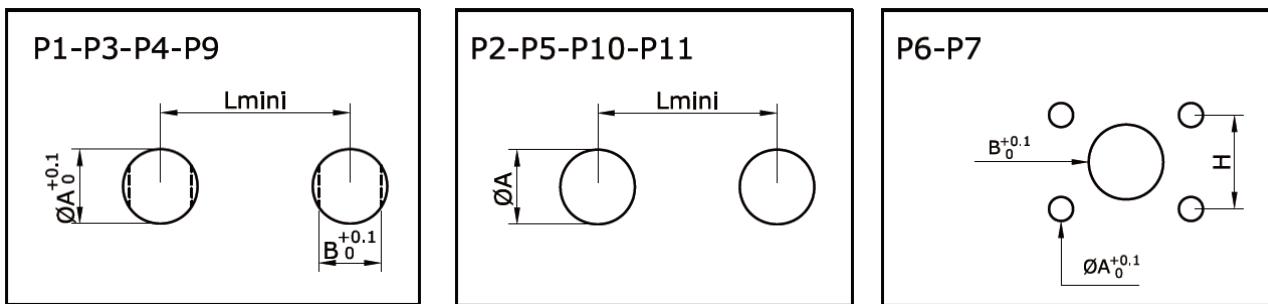
### Housings, Contacts, Contact Variants

Ref.	Series	Material	Code	Colour	Code	Colour
Housings	F series	Brass	130	Natural Chrome Plated	140	Black Chrome Plated
	B series	Brass	C	Natural Chrome Plated	S	Black Chrome Plated
	K series	Brass	C	Natural Chrome Plated	S	Black Chrome Plated
	S series	Brass	C	Natural Chrome Plated	S	Black Chrome Plated
	P series	Plastic	C	Gray Color Outshell	N	Black Color Plastic

Ref.	Series	Material	Code	Color	Surface Treatment	Code	Color	Surface Treatment
Contacts	F series	Brass	A	Male Contact	Gold Plated	Z	Female Contact	Gold Plated
	B series	Brass	A	Male Contact	Gold Plated	L	Female Contact	Gold Plated
	K series	Brass	A	Male Contact	Gold Plated	L	Female Contact	Gold Plated
	S series	Brass	A	Male Contact	Gold Plated	L	Female Contact	Gold Plated
	P series	Brass	A	Male Contact	Gold Plated	L	Female Contact	Gold Plated

Ref.	Series	Material	Code	Variants	Surface Treatment	Code	Variants	Surface Treatment	Code	Variants	Surface Treatment
Contact Variants	F series	Brass	L	Solder	Gold Plated	N	PCB	Gold Plated	V	Elbow PCB	Gold Plated
	B series	Brass	L	Solder	Gold Plated	N	PCB	Gold Plated	V	Elbow PCB	Gold Plated
	K series	Brass	L	Solder	Gold Plated	N	PCB	Gold Plated	V	Elbow PCB	Gold Plated
	S series	Brass	L	Solder	Gold Plated	N	PCB	Gold Plated	V	Elbow PCB	Gold Plated
	P series	Brass	L	Solder	Gold Plated	N	PCB	Gold Plated	V	Elbow PCB	Gold Plated

# 12. Panel Cut-out



**B Series**

Series	P1			P2			P3			P4			P5			P9			P10		
	$\phi A$	B	L	$\phi A$	L	$\phi A$	B	L	$\phi A$	B	L	$\phi A$	L	$\phi A$	B	L	$\phi A$	B	L		
00	7.1	6.4	12.5	7.1	11.5	-	-	-	-	-	-	-	-	7.1	6.4	12.0	-	-	-		
0B	9.1	8.3	14.5	9.1	13.5	14.1	12.6	20.1	10.1	9.1	15.0	8.3	10.5	9.1	8.3	15.0	-	-	-		
1B	12.1	10.6	18.5	-	-	16.1	14.6	22.0	14.1	12.6	21.0	11.2	14.0	12.1	10.6	19.0	11.1	17.0	-		
2B	15.1	13.6	22.5	-	-	19.2	17.1	28.0	16.1	15.1	23.0	13.9	18.0	15.1	13.6	23.0	-	-	-		
3B	18.2	16.6	27.0	-	-	-	-	-	20.2	18.6	29.5	-	-	18.2	16.6	27.0	-	-	-		

**Cut-out Types**

Model	Type	Model	Type
INT-ZCG	P1	INT-HCG	P3
INT-ZEG	P1	INT-MEG	P9
INT-ZHG	P1	INT-MGG	P9
INT-ZXG	P2/P10	INT-MHG	P9
INT-TAG	P1	INT-DFG	P1

**Mounting Nut Torque**

Series	Torque (Nm)	
	Metal shell	Plastic shell
00	1.0	0.4
0B	2.5	0.4
1B	4.5	0.7
2B	6.0	0.8
3B	9.0	1.0

**B Series**

Series	P1			P6			P7		
	$\phi A$	B	L	$\phi A$	B	L	$\phi A$	B	L
0K	14.1	12.6	20.5	-	-	-	-	-	-
1K	16.1	14.6	22.5	-	-	-	-	-	-
2K	20.2	18.6	29.0	-	-	-	-	-	-
3K	24.2	22.6	35.5	3.5	22.6	20.6	3.5	23.1	23.0

**Cut-out Types**

Model	Type
INT-ZCG	P1
INT-ZEG	P1

**Mounting Nut Torque**

Series	Torque (Nm)
0K	5
1K	7
2K	9
3K	12

## 12. Panel Cut-out

S Series

Series	P1			P2			P3			P4			P6			P7			P10	
	Ø A	B	L	Ø A	L	Ø A	B	L	Ø A	B	L	Ø A	B	H	Ø A	B	H	Ø A	L	
00	7.1	6.4	12.5	7.1	11.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
0S	9.1	8.3	14.5	9.1	13.5	12.1	10.6	20.0	10.1	9.1	15.0	-	-	-	-	-	-	-	-	
1S	12.1	10.6	18.5	12.1	19.0	14.1	12.6	21.0	12.1	10.6	18.0	3.3	12.1	12.7	2.7	11.1	12.4	11.1	17.0	
2S	15.1	13.6	22.5	15.1	21.5	16.1	14.6	22.0	16.1	15.1	23.1	3.3	15.1	15.5	-	-	-	-	-	
3S	18.2	16.6	27.0	18.2	27.0	20.2	18.6	30.0	20.2	18.6	29.0	3.3	18.2	18.0	-	-	-	-	-	

### Cut-out Types

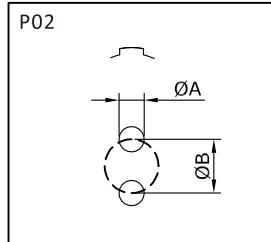
Model	Type
INT-ZRA	P1
INT-ZRD	P1

### Mounting Nut Torque

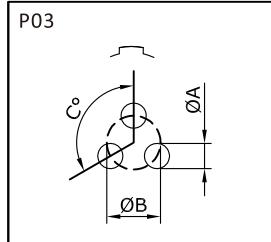
Series	Torque (Nm)	
	Metal shell	Plastic shell
0S	2.5	0.4
1S	4.5	0.7
2S	6.0	0.8
3S	9.0	1.0

# 13. PCB Drilling Pattern

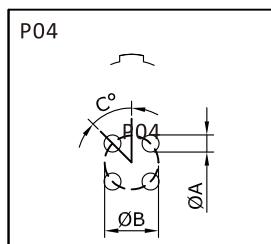
## Fixed Receptacle with Straight Print Contact (B-K Series)



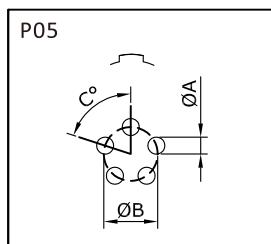
Series	Dimensions(mm)	
	A	B
00	0.6	1.2
0B-0K	0.8	2.2
1B-1K	0.8	2.8
2B-2K	0.8	4.4



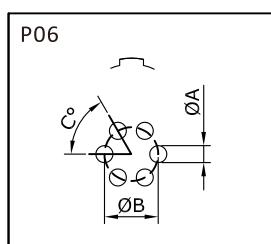
Series	Dimensions(mm)		
	A	B	C
00	0.6	1.35	120°
0B-0K	0.8	2.30	120°
1B-1K	0.8	3.00	120°
2B-2K	0.8	4.60	120°
3B-3K	0.8	5.60	120°



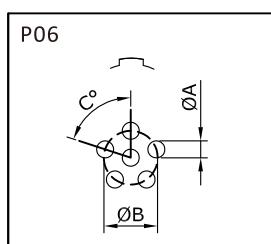
Series	Dimensions(mm)		
	A	B	C
00	0.6	1.6	45°
0B-0K	0.8	2.5	45°
1B-1K	0.8	3.1	45°
2B-2K	0.8	5.0	45°
3B-3K	0.8	6.2	45°



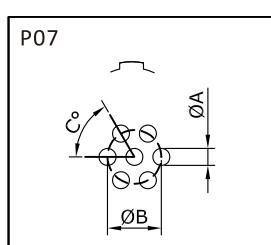
Series	Dimensions(mm)		
	A	B	C
0B-0K	0.6	2.8	72°
1B-1K	0.8	3.4	72°
2B-2K	0.8	5.2	72°
3B-3K	0.8	6.7	72°



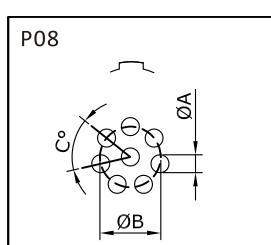
Series	Dimensions(mm)		
	A	B	C
0B-0K	0.6	3.0	60°
1B-1K	0.8	3.7	60°



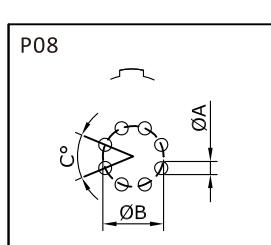
Series	Dimensions(mm)		
	A	B	C
2B-2K	0.8	5.6	72°
3B-3K	0.8	7.1	72°



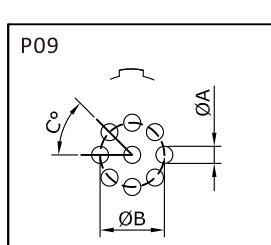
Series	Dimensions(mm)		
	A	B	C
0B-0K	0.6	3.0	60°
1B-1K	0.8	3.7	60°
2B-2K	0.8	5.8	60°
3B-3K	0.8	7.08	60°



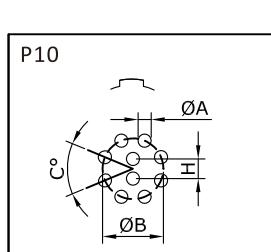
Series	Dimensions(mm)		
	A	B	C
1B-1K	0.8	3.8	51°26'



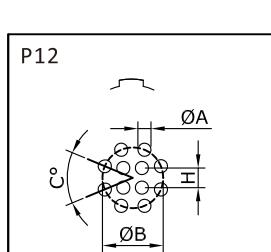
Series	Dimensions(mm)		
	A	B	C
2B-2K	0.8	6.4	45°
3B-3K	0.8	7.5	45°



Series	Dimensions(mm)		
	A	B	C
0B-0K	0.6	3.2	45°
3B-3K	0.8	7.5	45°

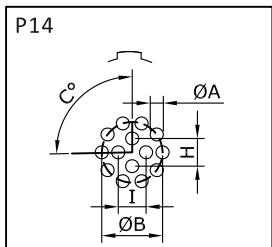


Series	Dimensions(mm)			
	A	B	C	H
1B-1K	0.6	3.95	45°	1.40
2B-2K	0.8	6.2	45°	2.15
3B-3K	0.8	7.9	45°	2.80

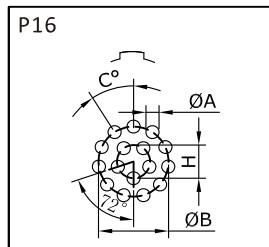


Series	Dimensions(mm)			
	A	B	C	H
2B-2K	0.8	6.5	45°	2.80
3B-3K	0.8	8.2	45°	3.40

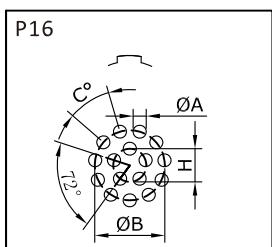
## 13. PCB Drilling Pattern



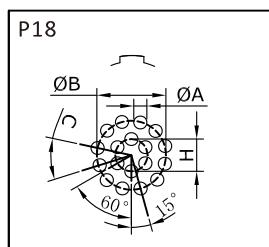
Series	Dimensions(mm)				
	A	B	C	H	I
1B-1K	0.6	4.4	90°	1.90	1.80
2B-2K	0.8	6.5	90°	2.65	2.65
3B-3K	0.8	8.2	90°	3.40	3.40



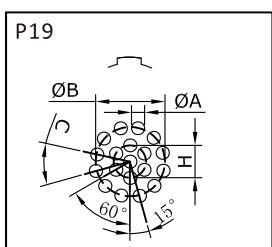
Series	Dimensions(mm)			
	A	B	C	H
1B-1K	0.6	4.4	32°44'	2.0



Series	Dimensions(mm)			
	A	B	C	H
2B-2K	0.8	6.6	32°44'	3.10
3B-3K	0.8	8.4	32°44'	3.86

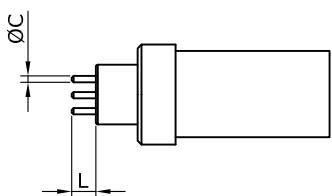


Series	Dimensions(mm)			
	A	B	C	H
2B-2K	0.8	6.7	30°	3.5
3B-3K	0.8	8.4	30°	4.34



Series	Dimensions(mm)			
	A	B	C	H
2B-2K	0.8	6.7	30°	3.50

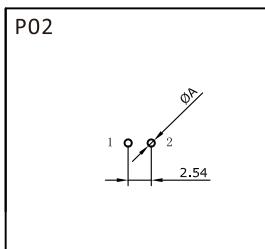
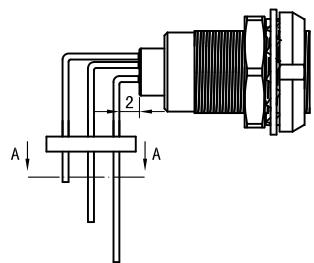
### Length of Straight Print Contacts (For Receptacle)



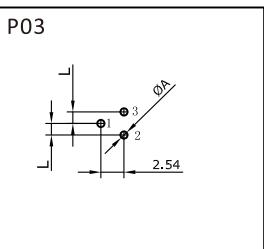
Series	Contact No.	Dimensions(mm)	
		Ø C	L
00	302	0.5	3.0
	303	0.5	3.0
	304	0.5	3.0
0B 0K	302/303	0.7	3.2
	304/305	0.5	3.2
	306/307/309	0.5	3.2
1B 1K	302/303/303/304/305	0.7	3.0
	306/307/308	0.7	3.0
	310/314/316	0.5	4.0
2B 2K	302/303/304/305/306/307	0.7	3.0
	308/310/314/316/318/319	0.7	3.0
	326/332	0.5	3.0
3B 3K	303/304/305/306/307	0.7	3.0
	308/309/310/312/314/316/318	0.7	3.0
	320/322/324/326/330	0.5	5.0

## 13. PCB Drilling Pattern

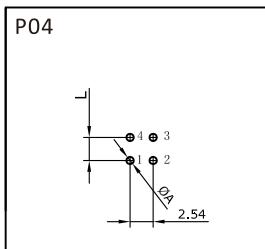
### Fixed Receptacle with Elbow Print Contact (B-K Series)



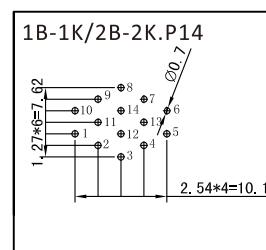
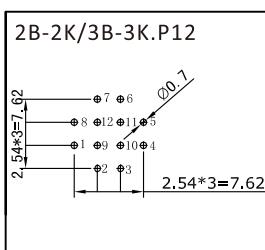
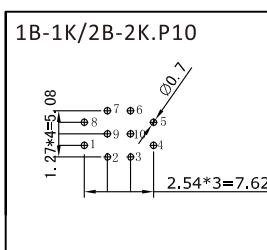
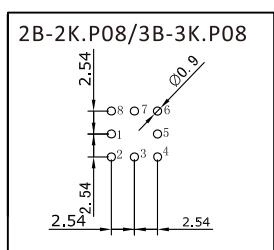
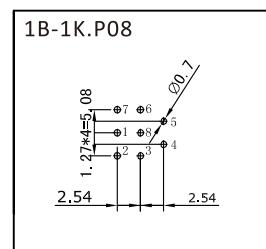
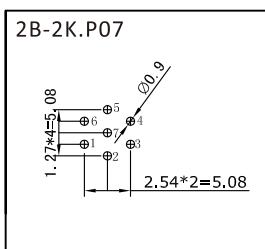
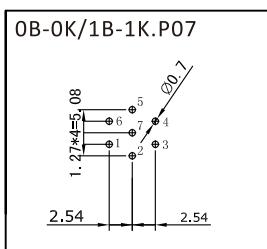
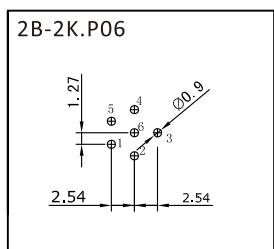
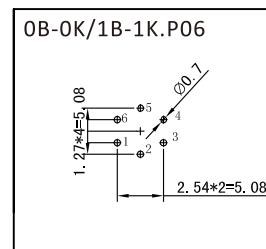
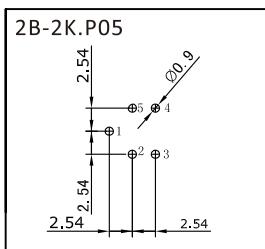
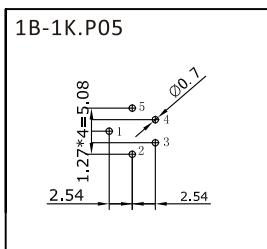
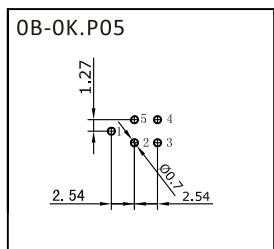
Series	Dimensions (mm)
	A
00	0.6
OB-OK	0.7
1B-1K	0.9
2B-2K	0.9



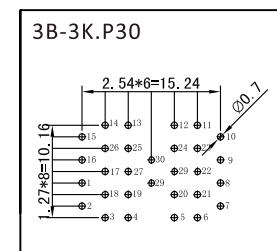
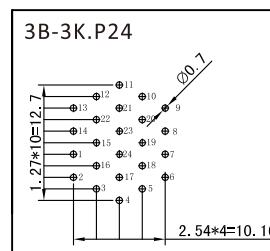
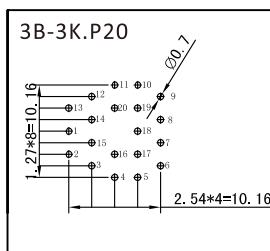
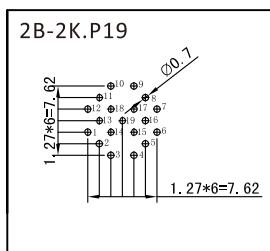
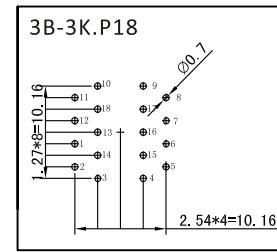
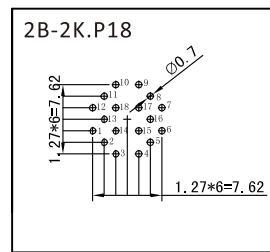
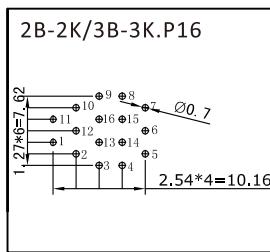
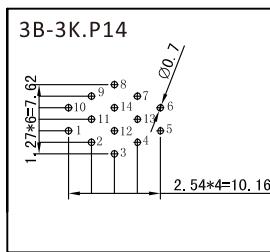
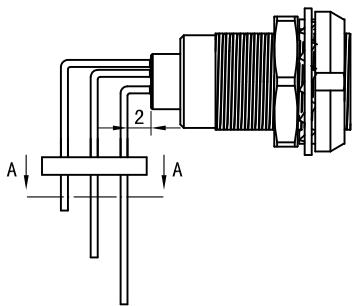
Series	Dimensions(mm)	
	A	L
00	0.6	1.27
OB-OK	0.7	1.27
1B-1K	0.9	1.27
2B-2K	0.9	2.54



Series	Dimensions(mm)	
	A	L
00	0.6	2.54
OB-OK	0.7	2.54
1B-1K	0.7	2.54
2B-2K	0.9	3.50



## 13. PCB Drilling Pattern



## 14. Customized Cable Assembly



## 14. Customized Cable Assembly





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