

Push pull locking
IP68 waterproof
2~37 contacts
Shielding
>5000 mating cycles
Size 0,1,1.5,2,3



F series part number rule

No.	Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	Style: Plug = P3, P4, PX Panel mount plug = MD	P	3	0	F	1	S	—	P	0	9	M	F	D	0	—	2	5	0	0
2	Free receptacle = F3, F4 Receptacle = R1, RX, R8																			
3	Size: 0, 1, 2, 3, A (1.5)																			
4	Series: F																			
5	Coding																			
6	Shell material and surface plating																			
8	Insulator material																			
9	Contact number																			
10	Contact number																			
11	Contact style																			
12	Pin/Socket diameter																			
13	Contact terminal																			
14	Special contact :9																			
16	Cable collect (Right angle: A0)																			
17	Cable collect (Right angle: A0)																			
18	0																			
19	Back nut																			

Remark:

The 18th/19th is 00, means standard back nut, if 0Z, means cable sheath back nut

Example: Plug

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
P	3	0	F	1	S	—	P	0	9	M	C	C	0	—	2	5	0	0

Plug - P3 style, size 0, F series, coding 1, Barss Shell black chrome plated, PPS insulator, 9 contacts, solder pin gold plated, pin diameter is 0.5mm, suit for AWG28 wire terminal, cable diameter from 2.0~2.5mm, standard back nut

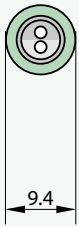
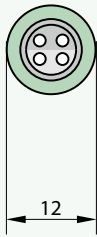
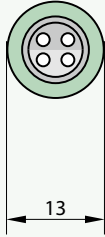
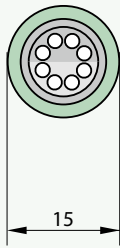
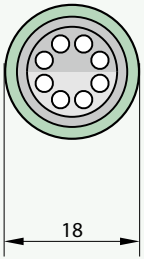
Example: Receptacle

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
R	3	0	F	2	C	—	P	0	9	M	C	C	0	—	0	0	0	0

Receptacle - R3 style, size 0, F series, coding 2, Brass shell silver chrome plated, PPS insulator, 9 contacts, solder socket gold plated, socket diameter 0.5mm.

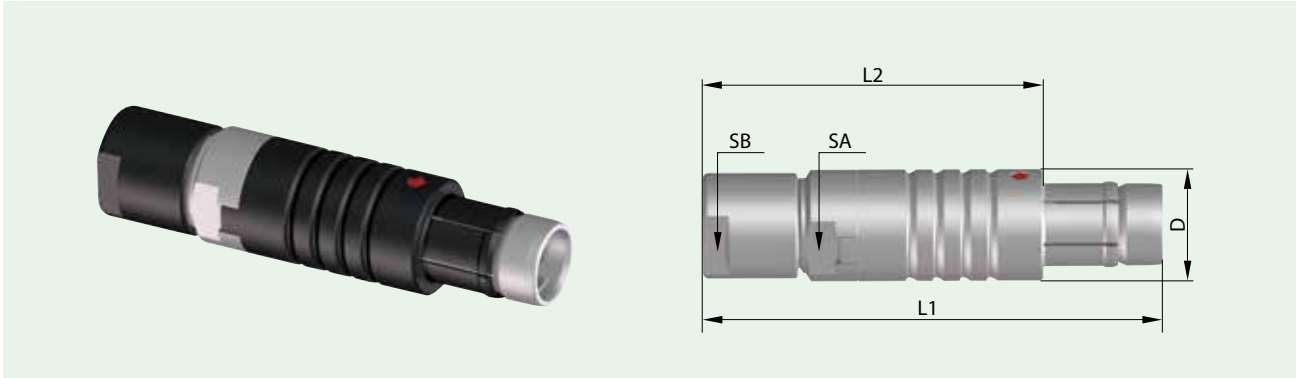
Shell size (Rate 1:1)

OD= Shell diameter: (unit :mm)
S= Size

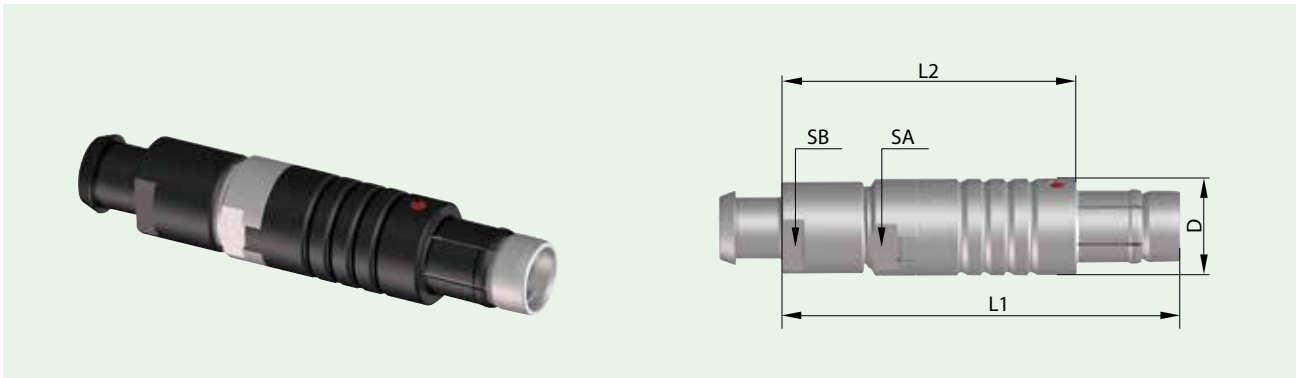
OD					
S	0	1	1.5	2	3
Size	0	1	A	2	3

Straight plug(P3,P4)

P 3 IP68, standard back nut



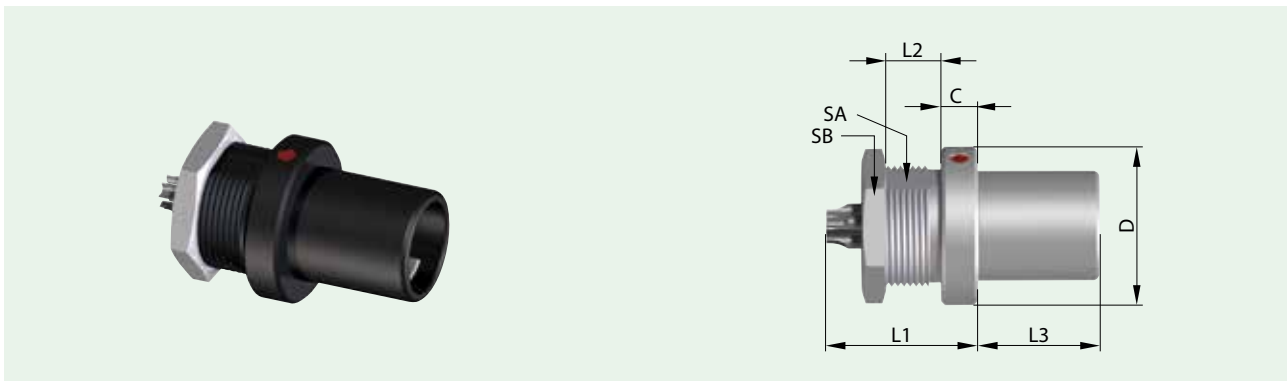
P 4 IP68, cable sheath back nut or overmoulding



Size	mm				
	L1	L2	D	SA	SB
0	~40	~30	9.4	8	7
1	~49	~38	12	10	10
1.5	~50	~40	13	11	12
2	~53	~40	15	13	12
3	~62	~47	18	16	15

Panel mount plug (MD)

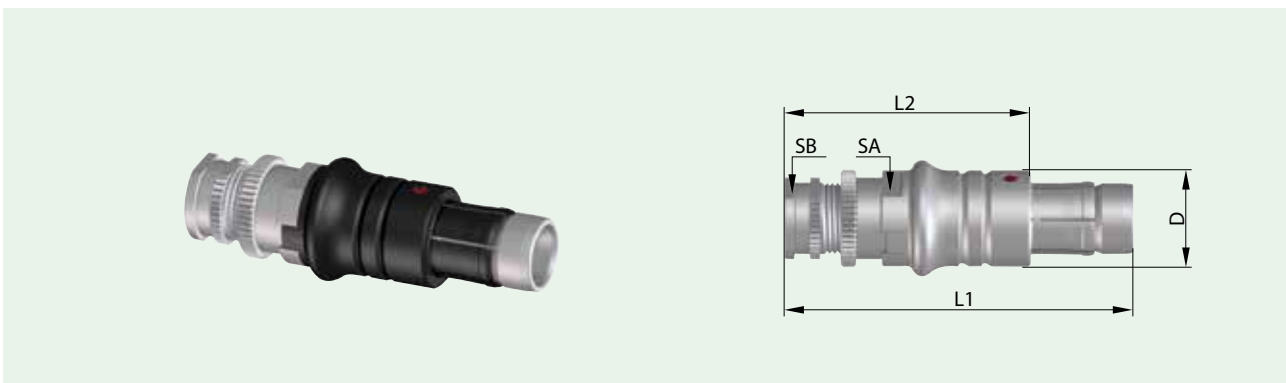
M D IP68



size	mm							panel hole	
	L1	L2	L3	C	D	SA	SB	* \emptyset	** \emptyset
0	~14.5	~4.5	10	3	13	9	11	-/ Φ 9.1*	
1	~18.5	~6.5	10.8	2.5	17	11	14	SW11.2/ Φ 12.1**	
2	~19.7	~7	12.1	3	22	15.2	19	SW 15.3/ Φ 16.1**	

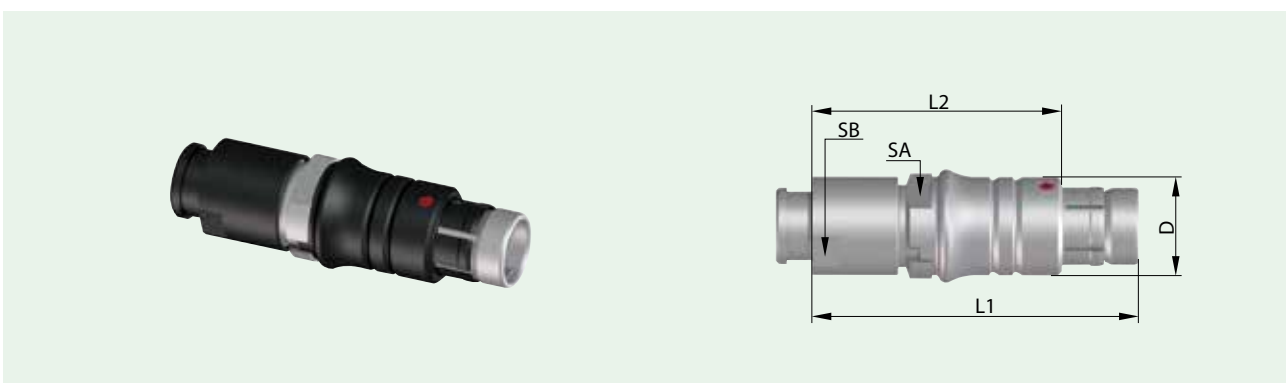
Plug (PX)

P X IP68 with over-moulding back nut



Size	mm				
	L1	L2	D	SA	SB
0	33	23	9.4	8	7

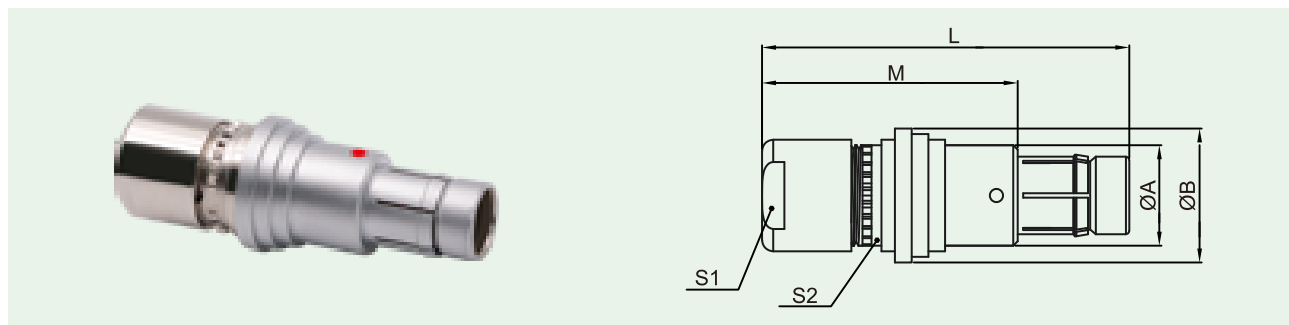
P Y IP68, with cable sheath back nut or over-moulding



Size	mm				
	L1	L2	D	SA	SB
0	33	23	9.4	8	7

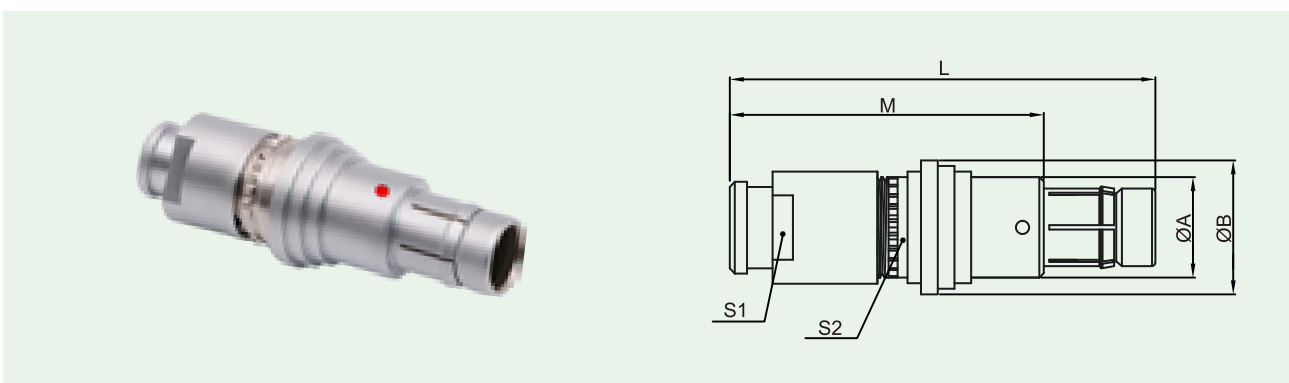
Plug (PX)

P T IP68 with over-moulding back nut



Size	mm				
	L1	M	A	B	S1
0	~32	~30	9.4	8	7
1	~35	~38	12	10	10
1.5	~38	~40	13	11	12
2	~42	~40	15	13	12
3	~47	~31	14	18	15

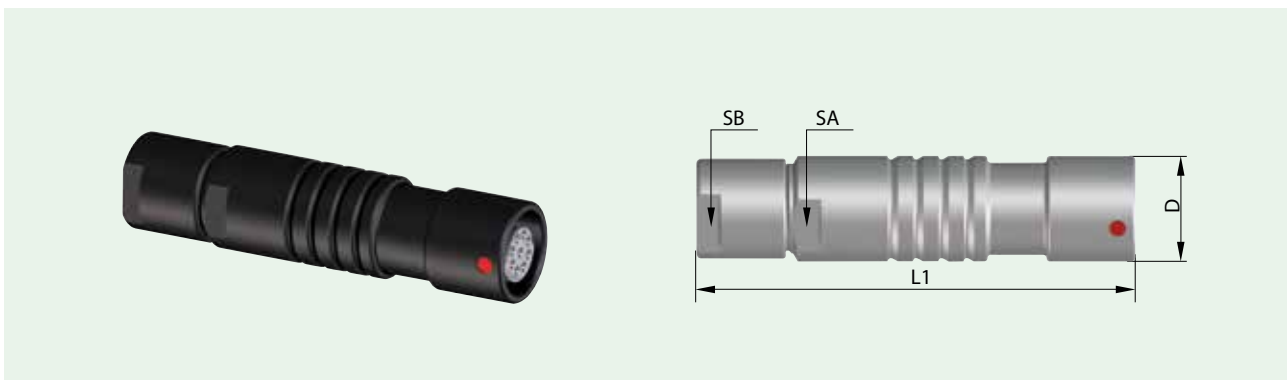
P S IP68, with cable sheath back nut or over-moulding



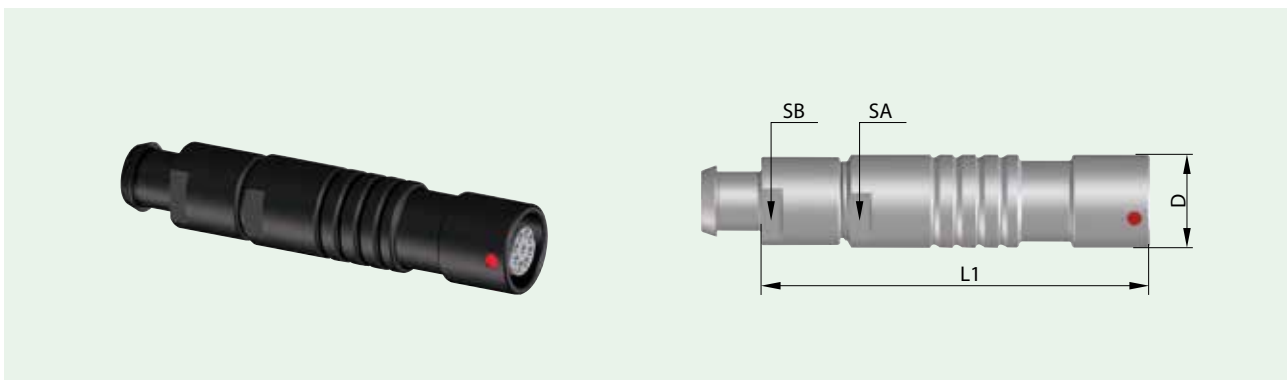
Size	mm				
	L1	L2	D	SA	SB
0	~40	~30	9.4	8	7
1	~49	~38	12	10	10
1.5	~50	~40	13	11	12
2	~53	~40	15	13	12
3	~62	~47	18	16	15

Free receptacle (F3, F4)

F 3 IP68, standard back nut



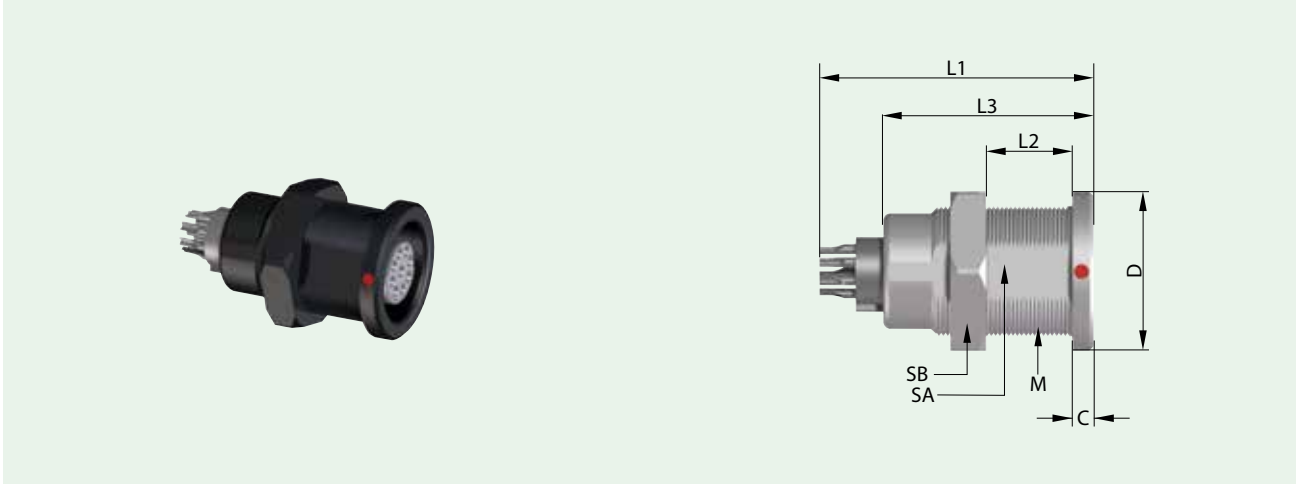
F 4 IP68, cable sheath back nut or over-moulding



size	mm			
	L1	D	SA	SB
0	~39	10	8	7
1	~47	13	10	10
2	~50	16	13	12

Receptacle (R1)

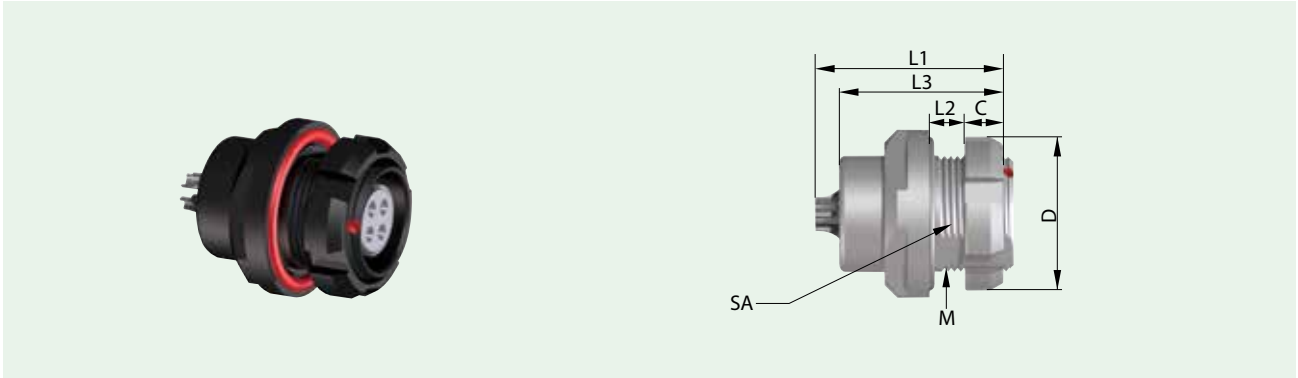
R 1 IP50

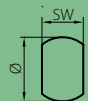


size	mm								 panel hole
	L1	L2	L3	M	D	SA	SB	C	
0	~20.0	~9.0	14.5	9×0.5	10.0	8.2	11.0	1.5	SW 8.3/Φ9.1
1	~24.0	~8.0	16.5	12×1	14.0	10.0	14.0	1.5	SW 10.1/Φ12.1
1.5	~25.0	~8.0	15.5	14×1	16.0	12.0	17.0	2.0	SW 12.1/Φ14.1
2	~27.0	~10.0	18.5	15×1	18.0	14.1	17.0	2.0	SW 14.2/Φ15.1
3	~30.5	~13.0	22.5	18×1	22.0	16.5	22.0	2.0	SW 16.6/Φ18.1

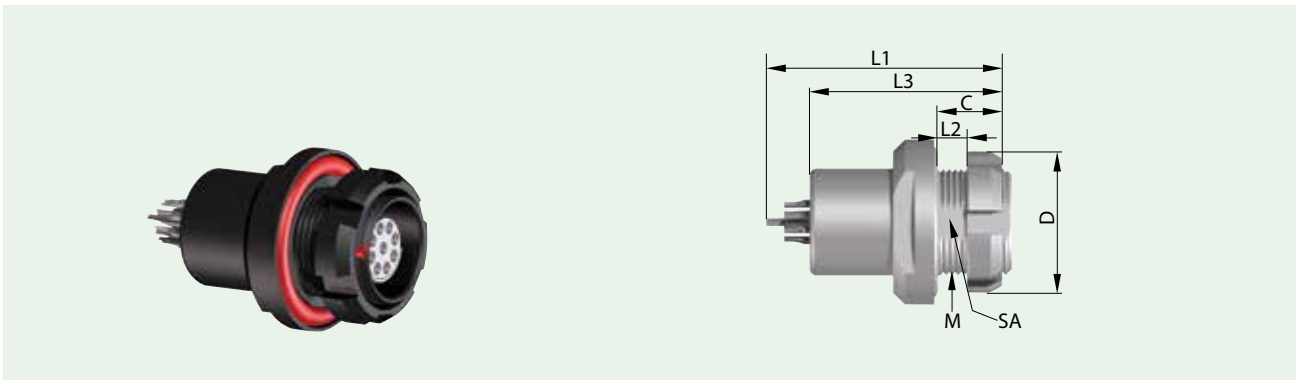
Receptacle (RX, R8)

R X IP68



size	mm							 panel hole
	L1	L2	L3	M	D	SA	C	
0	~15.4	~3.5	10	9×0.5	13	8.2	2.5	SW 8.3/Φ9.1




R 8 IP68



size	mm							 panel hole
	L1	L2	L3	M	D	SA	C	
0	~22.0	~3.5	17.0	9X0.5	14.0	8.2	6.5	SW 8.3/Φ9.1**
1	~27.5	~4.0	21.0	14×1	18.0	12.0	8.0	SW 12.1/Φ14.1*
1.5	~24.0	~3.0	19.5	14×1	19.0	12.0	7.0	SW 12.1/Φ14.1**
2	~29.0	~3.0	23.0	16×1	21.0	14.3	8.0	SW 14.4/Φ16.1*
3	~33.0	~6.0	26.5	20×1	26.0	18.0	11.0	SW 18.1/Φ20.1*

Coding, shell material and surface plating

Coding

code	receptacle front view	size				
		0	1	1.5	2	3
1		●	●	●	●	●
2		●	●	●	●	●
3				●	●	●

Shell material and surface plating













code	shell material and surface plating
C	standard brass/silver chrome plated
S	brass/black chrome plated

Insulator material

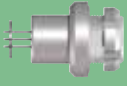
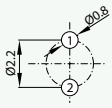
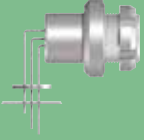

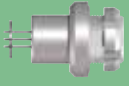
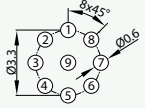
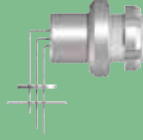
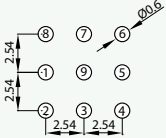
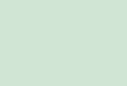
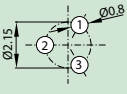
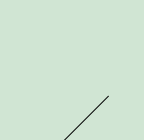

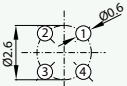
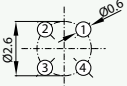
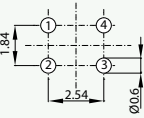
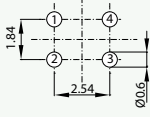
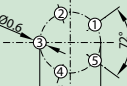
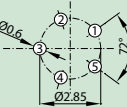
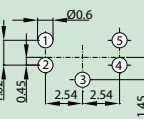
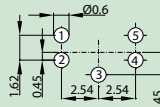
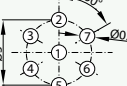
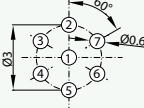
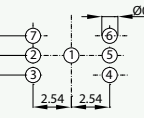
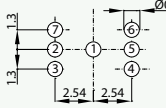
PPS, Turn contact

code	terminal	PPS
P	solder	●
	PCB	●

Character size 0

size	insulator material	contact number	pin diameter mm	current rate	testing vol. (KV) VDE0627: 1986-06	testing vol.(KV) SAE S13441:1998 method3001.1	work vol. (KV) SAE S13441:1998 method 3001.1	terminal		view	
								solder	PCB	pin	socket
0	P	02	0.9	10	1.000	1.500	0.500	●	●		
0	P	03	0.9	10	0.875	1.200	0.400	●	●		
0	P	04	0.7	7	0.875	0.900	0.300	●	●		
0	P	05	0.7	7	0.750	1.100	0.366	●	●		
0	P	07	0.5	5	1.000	0.900	0.300	●	●		
0	P	09	0.5	5	1.000	0.900	0.300	●	●		

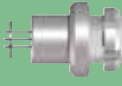
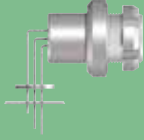
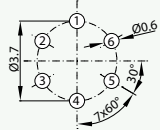
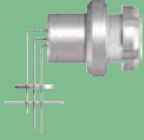
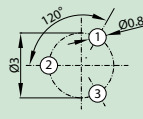
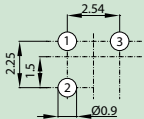
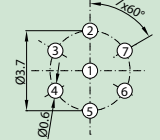
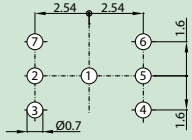
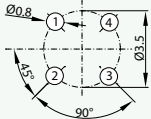

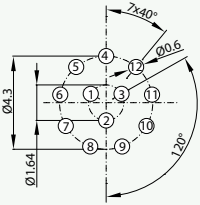
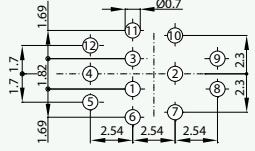
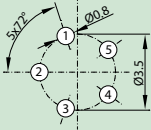
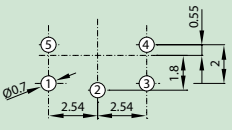
PCB hole size 0

contact number	PCB straight	PCB right angle	contact number	PCB straight	PCB right angle
2	 	 	9	 	 
3	 	 			
4	 	 			
5	 	 			
7	 	 			







Character size 1

size	insulator material	contact number	pin diameter mm	current rate	testing vol. (KV) VIDE0627: 1986-06	testing vol.(KV) SAE S13441:1998 method3001.1	work vol. (KV) SAE S13441:1998 method 3001.1	terminal		view	
								solder	PCB	pin	socket
1	P	02	1.3	14	1.250	1.650	0.550	●	●		
1	P	03	1.3	14	1.000	1.500	0.500	●	●		
1	P	04	0.9	10	1.000	1.500	0.500	●	●		
1	P	05	0.9	10	0.875	1.350	0.450	●	●		
1	P	06	0.7	7	0.875	1.200	0.400	●	●		
1	P	07	0.7	7	0.875	1.200	0.400	●	●		
1	P	12	0.5	5	0.750	1.100	0.366	●	●		

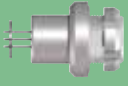
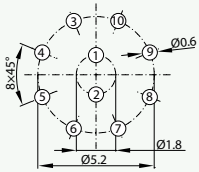
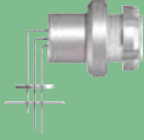
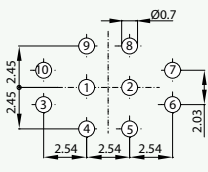
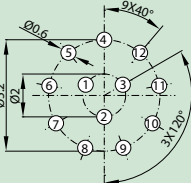
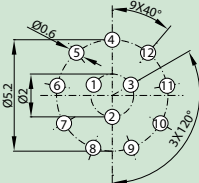
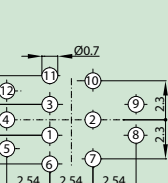
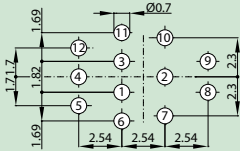
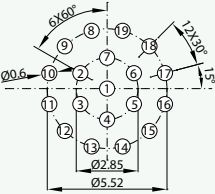
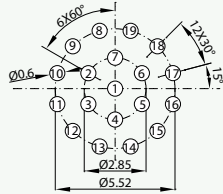
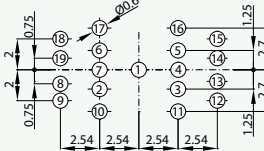
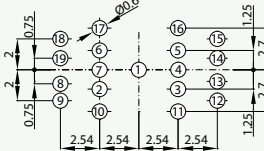
PCB hole size 1

contact number	PCB straight	PCB right angle	contact number	PCB straight	PCB right angle
2			6		
3			7		
4			12		
5					

Character size 1.5

size	insulator material	contact number	pin diameter mm	current rate	testing vol. (KV) VIDE0627: 1986-06	testing vol.(KV) SAE S13441:1998 method3001.1	work vol. (KV) SAE S13441:1998 method 3001.1	terminal		view	
								solder	PCB	pin	socket
A	P	10	0.7	7	0.875	1.200	0.400	●	●		
A	P	12	0.7	7	0.875	1.200	0.400	●	●		
A	P	19	0.5	5	0.750	1.000	0.333	●	●		

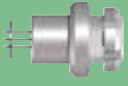
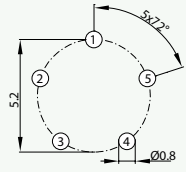
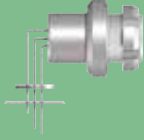
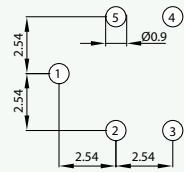
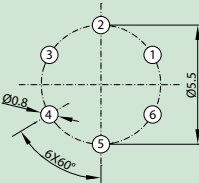

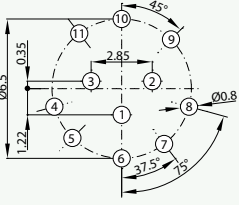
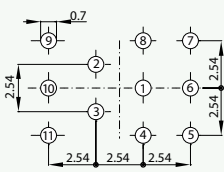
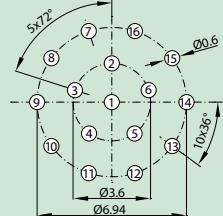
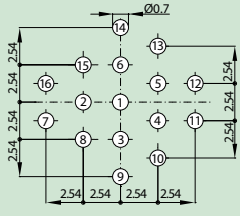
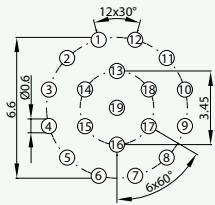
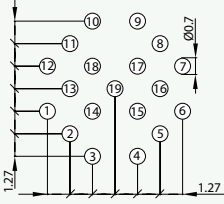
PCB hole size 1.5

contact number	PCB straight	PCB right angle
10	 	 
12	 	 
19	 	 









Character size 2

size	insulator material	contact number	pin diameter mm	current rate	testing vol. (KV) VIDE0627: 1986-06	testing vol.(KV) SAE S13441:1998 method3001.1	work vol. (KV) SAE S13441:1998 method 3001.1	terminal		view	
								solder	PCB	pin	socket
2	P	05	1.3	14	1.000	1.500	0.500	●	●		
2	P	06	0.9	10	1.250	1.800	0.600	●	●		
2	P	11	0.9	10	0.875	1.350	0.450	●	●		
2	P	16	0.7	7	0.875	1.350	0.450	●	●		
2	P	19	0.7	7	0.750	1.200	0.400	●	●		

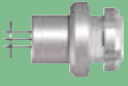
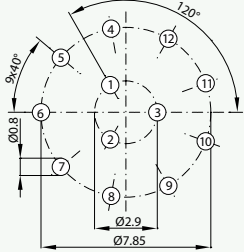
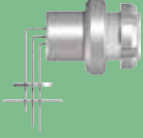

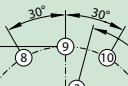
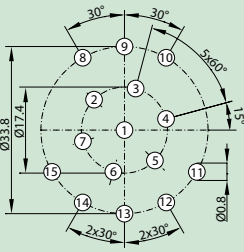
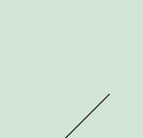


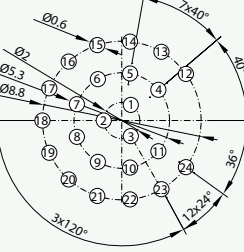
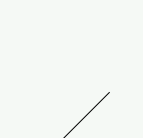

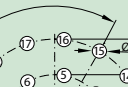
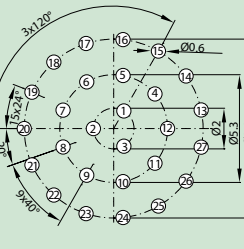
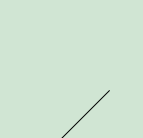

PCB hole size 2

contact number	PCB straight	PCB right angle
5	 	 
6		
11		
16		
19		

Character size 3

size	insulator material	contact number	pin diameter mm	current rate	testing vol. (KV) VIDE0627: 1986-06	testing vol.(KV) SAE S13441:1998 method3001.1	work vol. (KV) SAE S13441:1998 method 3001.1	terminal		view	
								solder	PCB	pin	socket
3	P	12	1.3	14	0.875	1.350	0.450	●	●		
3	P	15	0.9	10	0.875	1.350	0.450	●	●		
3	P	24	0.7	7	0.750	1.000	0.333	●	●		
3	P	27	0.7	7	0.750	1.000	0.333	●	●		

PCB hole size 3

contact number	PCB straight	PCB right angle
12	 	 
15	 	 
24	 	 
27	 	 

Pin/socket style, surface plating, pin/socket diameter

Pin/socket style, surface plating

style	code	surface plating
socket	L	L-1 $\mu\text{m Au}$ (min.)
pin	M	L-1 $\mu\text{m Au}$ (min.)
socket	Q	P-1 $\mu\text{m Au}$ (min.)
pin	R	P-1 $\mu\text{m Au}$ (min.)

L= solder

P=PCB

Pin/socket diameter

pin/socket dia.	code
0.50	C
0.70	F
0.90	J
Mix	M
1.30	P

Pin/socket diameter/terminal

solder

code	pin/socket dia.	terminal dia.	terminal sq.	
			AWG	mm ²
C 0	0.5	0.4	28	0.08
D 0	0.7	0.6	26	0.15
G 0	0.7	0.85	22	0.38
G 0	0.9	0.85	22	0.38
H 0	1.3	1.1	20	0.50

PCB

code	pin/socket dia.	terminal dia.
0 0	0.5	0.5
0 0	0.7	0.5
0 0	0.9	0.7
0 0	1.3	0.7

Cable collect

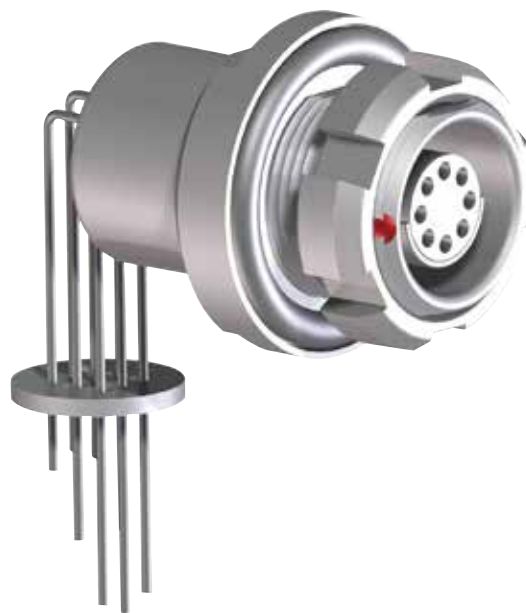
code		cable dia. mm	size				
			0	1	1.5	2	3
1	5	> 1.0-1.5	●	●			
2	0	> 1.5-2.0	●	●			
2	5	> 2.0-2.5	●	●		●	
3	0	> 2.5-3.0	●	●	●	●	
3	5	> 3.0-3.5	●	●	●	●	●
4	0	> 3.5-4.0	●	●	●	●	●
4	5	> 4.0-4.5	●	●	●	●	●
5	0	> 4.5-5.0	●	●	●	●	●
5	5	> 5.0-5.5		●	●	●	●
6	0	> 5.5-6.0		●	●	●	●
6	5	> 6.0-6.5		●	●	●	●
7	0	> 6.5-7.0		●	●	●	●
7	5	> 7.0-7.5		●	●	●	●
8	0	> 7.5-8.0				●	●
8	5	> 8.0-8.5				●	●
9	0	> 8.5-9.0				●	●
9	5	> 9.0-9.5				●	●
0	1	> 9.5-10.0					●
0	2	> 10.0-10.5					●
0	3	> 10.5-11.5					●
0	0	No cable collect					

For all plugs and sockets

cable collect

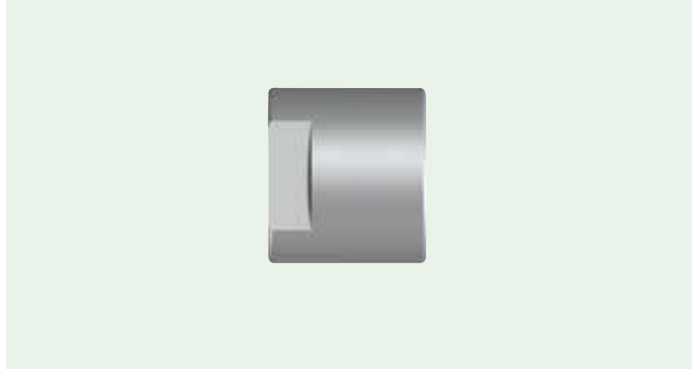


PCB right angle



Back nut

standard back nut



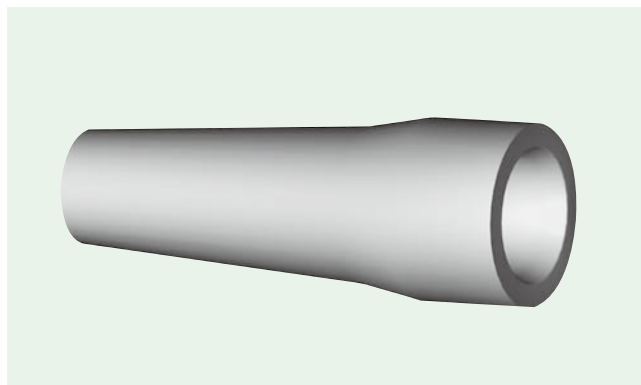
cable sheath or over-moulding back nut



Cable sheath

color

code	color/RAL-No. (similar)
A	red RAL 3020
B	white RAL 9010
C	yellowRAL 1016
D	green RAL 6029
E	blue RAL 5002
F	grey RAL 7005
G	black RAL 9005
0	no



cable sheath material

code	material
z	PUR
0	No

PUR

work tem. -40°C ~ +125°C

short time +150°C