

MULTI CONCENTRIC CONTACT CONNECTORS



S and E Series multi concentric contact connectors

A new range of products dedicated to applications in which connectors need to function even in case of rotation. Similar to coaxial or triaxial connectors, these precision engineered connectors are fitted with multiple concentric electrical contacts.

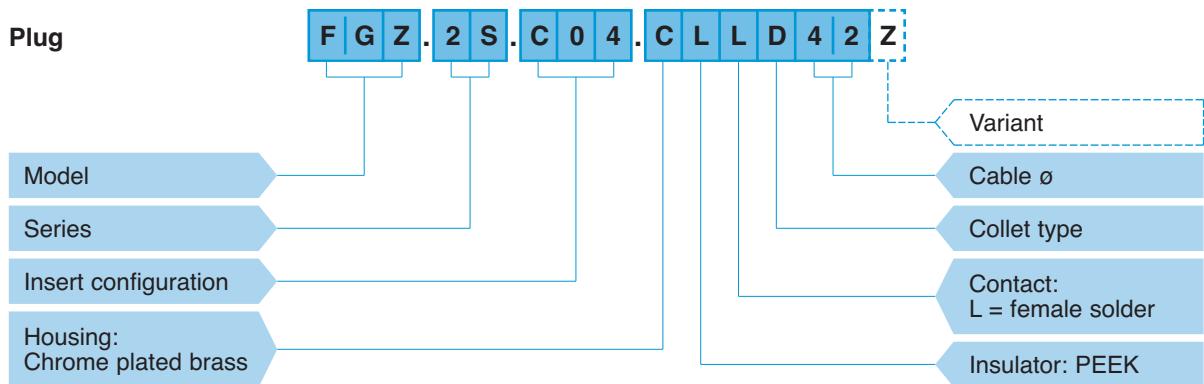
The number of contacts ranges from 4 to 10 contacts. Connectors are available in various shell sizes. For an IP68 connector solution select the E series.

These contacts, designed for low-speed rotation, can last up to 10,000 rotation cycles. Unlike coaxial or triaxial connectors this range is not impedance controlled.

The contacts are recessed and scoop-proof. Applications include petroleum downhole drilling systems and turret applications, in other words, applications where the connection may require free rotation (instrumentation mast).

Part Numbering System

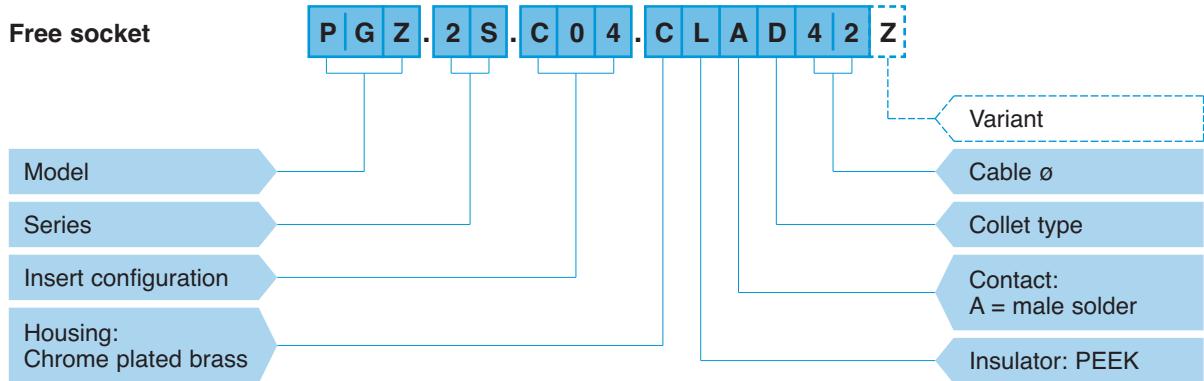
Plug



FGZ.2S.C04.CLLD42Z = Straight plug, cable collet, 2S series, concentric type with 4 contacts, outer shell in chrome-plated brass, PEEK insulator, female solder contacts, D type collet for 4.2 mm diameter cable and nut for fitting a bend relief.

FGZ.2E.C04.CLLC50 = Straight plug, cable collet, 2E series, concentric type with 4 contacts, outer shell in chrome-plated brass, PEEK insulator, female solder contacts, C type collet for 5.0 mm diameter cable.

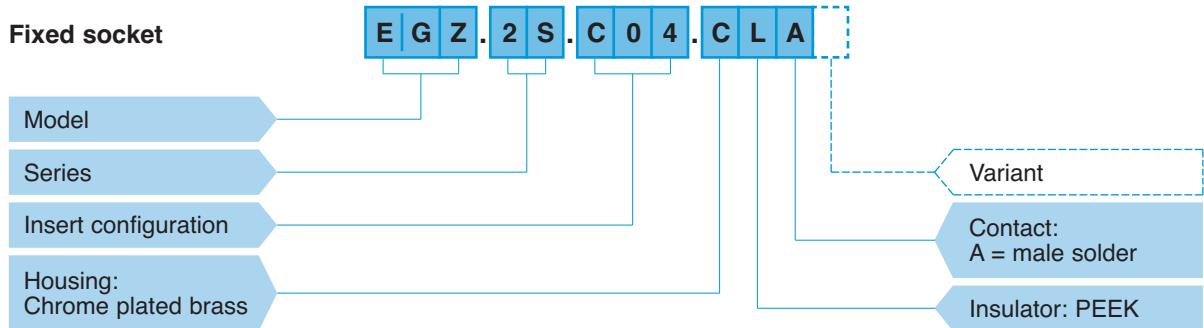
Free socket



PGZ.2S.C04.CLAD42Z = Free socket, cable collet, 2S series, concentric type with 4 contacts, outer shell in chrome-plated brass, PEEK insulator, male solder contacts, D type collet for 4.2 mm diameter cable and nut for fitting a bend relief.

PGZ.2E.C04.CLAC50 = Free socket, cable collet, 2E series, concentric type with 4 contacts, outer shell in chrome-plated brass, PEEK insulator, male solder contacts, C type collet for 5.0 mm diameter cable.

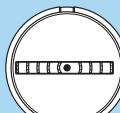
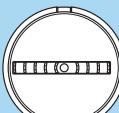
Fixed socket



EGZ.2S.C04.CLA = Fixed socket, nut fixing, 2S series, concentric type with 4 contacts, outer shell in chrome-plated brass, PEEK insulator, male solder contacts.

EGZ.2E.C04.CLA = Fixed socket, nut fixing, 2E series, concentric type with 4 contacts, outer shell in chrome-plated brass, PEEK insulator, male solder contacts.

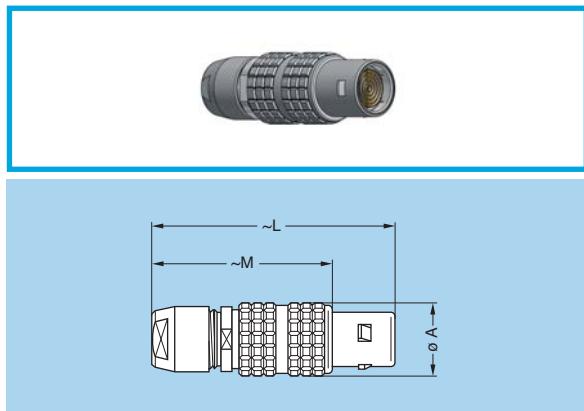
Insert configuration and electrical characteristics

Number of LV contacts	Male contacts	Female contacts	Reference	Series		Solder contact	Test voltage (kV rms)	Test voltage (kV dc)	Rated current (A)
				Standard	Watertight				
4			C04	2S	2E	●	0.60	0.85	5.5
5			C05	3S	3E	●	0.60	0.85	6.0
6			C06	4S	4E	●	0.60	0.85	6.0
8			C08	YS	–	●	0.60	0.85	6.5
10			C10	5S	5E	●	0.60	0.85	7.0

Note: the YS series is only available for FAA and EHP models.

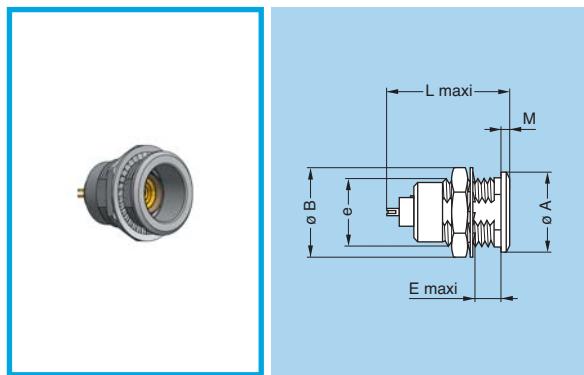
Models (S series)

FGZ Straight plug, cable collet



Reference		Dimensions (mm)		
Model	Series	A	L	M
FGZ	2S	15.0	50.0	38.0
FGZ	3S	18.8	58.0	43.0
FGZ	4S	25.0	75.0	57.0
FGZ	5S	35.0	103.0	78.0

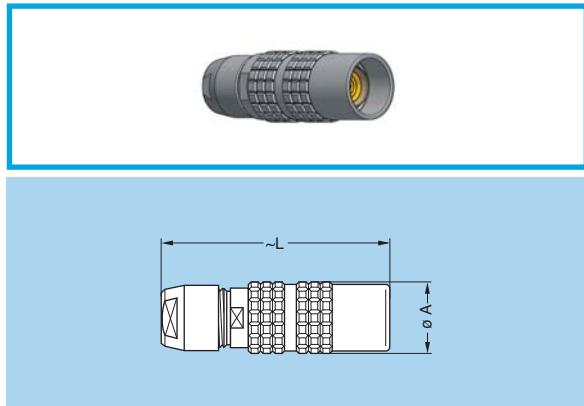
EGZ Fixed socket, nut fixing



Reference		Dimensions (mm)					
Model	Series	A	B	e	E	L	M
EGZ	2S	18.0	19.2	M15x1.0	8.5	25.0	1.8
EGZ	3S	22.0	25.0	M18x1.0	11.5	29.2	2.0
EGZ	4S	28.0	34.0	M25x1.0	12.0	33.0	2.5
EGZ	5S	40.0	40.0	M35x1.0	11.0	40.7	3.0

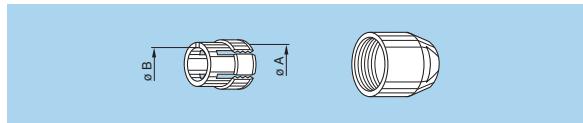
Note: The 5S series is delivered with a tapered washer and a round nut.

PGZ Free socket, cable collet



Reference		Dim. (mm)	
Model	Series	A	L
PGZ	2S	16.5	47.0
PGZ	3S	18.8	56.0
PGZ	4S	26.0	73.0
PGZ	5S	36.0	99.0

Collets (D type)



	Reference		Collet ø		Cable ø		Notes
	Type	Code	ø A	ø B	max.	min.	
2S	D	42	4.2	—	4.2	> 3.2	
	D	52	5.2	—	5.2	> 4.2	
	D	62	6.2	—	6.2	> 5.2	
	D	72	7.2	—	7.2	> 6.2	
	D	82	8.2	—	8.2	> 7.2	
	D	92	9.2	8.6	9.2	> 8.2	
	D	99	9.9	8.6	9.9	> 9.2	1)
3S	D	62	6.2	—	6.2	4.9	
	D	72	7.2	—	7.7	> 6.2	
	D	92	9.2	—	9.2	> 7.7	
	D	10	10.2	—	10.0	> 9.2	
	D	12	12.0	10.2	11.9	10.8	1)

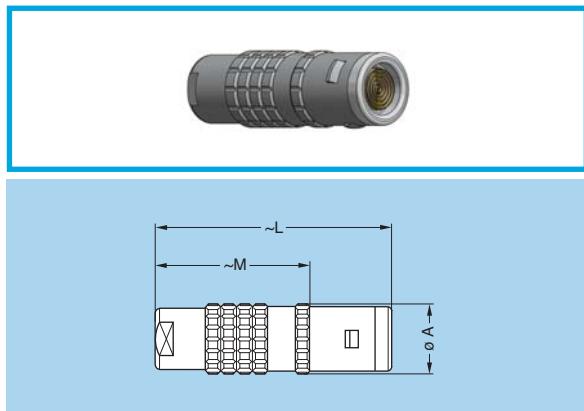
	Reference		Collet ø		Cable ø		Notes
	Type	Code	ø A	ø B	max.	min.	
4S	D	10	10.8	—	10.5	9.1	
	D	12	12.3	—	12.0	10.6	
	D	13	13.8	12.5	13.5	12.1	
	D	15	15.3	12.5	15.0	13.6	
	D	16	16.3	12.5	16.0	15.1	1)
5S	D	11	11.8	—	11.5	9.6	
	D	13	13.8	—	13.5	11.6	
	D	15	15.8	—	15.5	13.6	
	D	17	17.8	—	17.5	15.6	1)
	D	19	19.8	—	19.5	17.6	1)
	D	21	21.8	—	21.5	19.6	1)
	D	23	23.8	21.8	23.5	21.6	1)
	D	25	25.3	21.8	25.0	23.6	1)

Note: all dimensions are in millimetres.

1) these collets cannot be used for connector models with nut for fitting a bend relief.

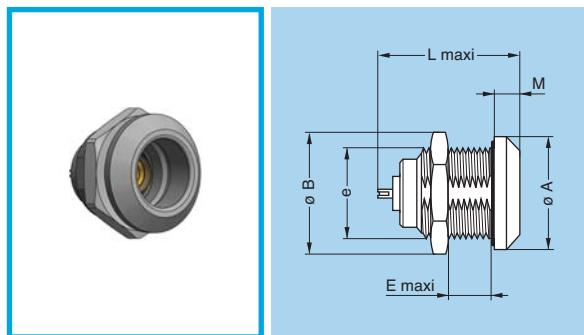
Models (E series)

FGZ Straight plug, cable collet



Reference		Dimensions (mm)		
Model	Series	A	L	M
FGZ	2E	16	52	36.0
FGZ	3E	19	61	41.0
FGZ	4E	25	71	50.5
FGZ	5E	38	92	67.0

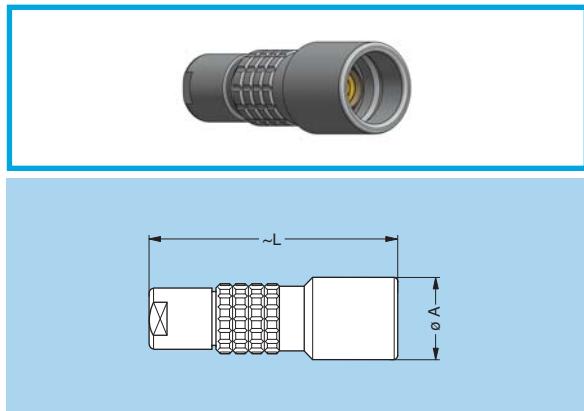
EGZ Fixed socket, nut fixing



Reference		Dimensions (mm)					
Model	Series	A	B	e	E	L	M
EGZ	2E	25	27.0	M20x1.0	9.0	28.5	5.0
EGZ	3E	31	34.0	M24x1.0	11.0	34.0	6.0
EGZ	4E	37	40.5	M30x1.0	9.0	36.0	6.5
EGZ	5E	55	54.0	M45x1.5	10.0	44.5	9.0

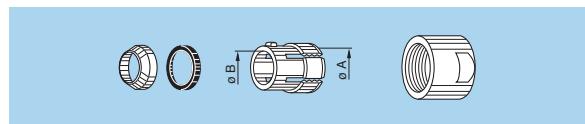
Note: The 5E series is delivered with a round nut.

PGZ Free socket, cable collet



Reference		Dim. (mm)	
Model	Series	A	L
PGZ	2E	19	54.0
PGZ	3E	23	65.0
PGZ	4E	29	75.5
PGZ	5E	42	95.0

Collets (C type)



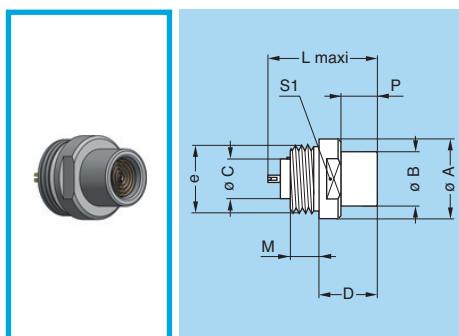
Reference		Collet ø		Cable ø	
Type	Code	ø A	ø B	max.	min.
2E	C 45	5.2	—	4.5	4.1
	C 50	5.2	—	5.0	4.6
	C 55	6.2	—	5.5	5.1
	C 60	6.2	—	6.0	5.6
	C 65	7.2	—	6.5	6.1
	C 70	7.2	—	7.0	6.6
	C 75	8.2	8.2	7.5	7.1
	C 80	8.2	8.2	8.0	7.6
	C 85	9.2	8.6	8.5	8.1
	C 90	9.2	—	9.0	8.6
3E	C 45	5.2	—	4.5	4.1
	C 50	5.2	—	5.0	4.6
	C 55	6.2	—	5.5	5.1
	C 60	6.2	—	6.0	5.6
	C 65	7.2	—	6.5	6.1
	C 70	7.2	—	7.0	6.6
	C 75	8.2	—	7.5	7.1
	C 80	8.2	—	8.0	7.6
	C 85	9.2	—	8.5	8.1
	C 90	9.2	—	9.0	8.6

Reference		Collet ø		Cable ø	
Type	Code	ø A	ø B	max.	min.
4E	C 90	9.3	—	9.0	8.6
	C 95	10.8	—	9.5	9.1
	C 10	10.8	—	10.5	9.6
	C 11	12.3	—	12.0	10.6
	C 12	13.8	13.8	12.8	12.1
	C 13	13.8	13.8	13.5	12.9
	C 14	15.3	15.3	14.0	13.6
	C 15	15.3	15.3	15.0	14.1
	C 16	11.8	—	10.5	9.6
	C 17	11.8	—	11.5	10.6
5E	C 12	13.8	—	12.5	11.6
	C 13	13.8	—	13.5	12.6
	C 14	15.8	—	14.5	13.6
	C 15	15.8	—	15.5	14.6
	C 16	17.8	—	16.5	15.6
	C 17	17.8	—	17.5	16.6
	C 18	19.8	—	18.5	17.6
	C 19	19.8	—	19.5	18.6
	C 20	21.8	—	20.5	19.6

Note: all dimensions are in millimetres.

Special reduced shell whithout latching models, NOT scoop proof

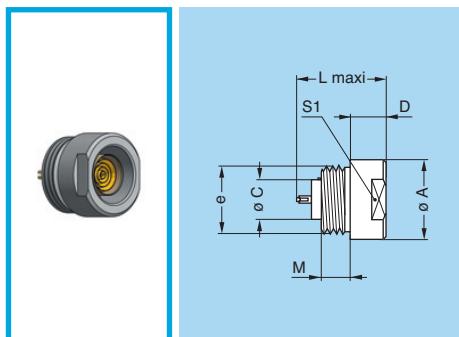
FAA Fixed plug (only compatible with EHP)



Reference		Dimensions (mm)							
Model	Series	A	B	C	e	D	L	M	P
FAA	2S	18.0	12.0	8.95	M16x1.5	12.5	26.2	7.5	8.0
FAA	3S	22.0	15.0	10.95	M20x1.5	16.0	30.2	8.0	10.0
FAA	4S	25.0	18.0	13.95	M22x1.5	17.0	33.2	10.0	10.0
FAA	YS	30.0	23.0	18.70	M27x1.5	21.0	40.7	13.5	13.0
FAA	5S	35.0	27.0	22.90	M32x1.5	21.0	40.7	13.5	13.0

Part number example: FAA.●S.C●.YLL

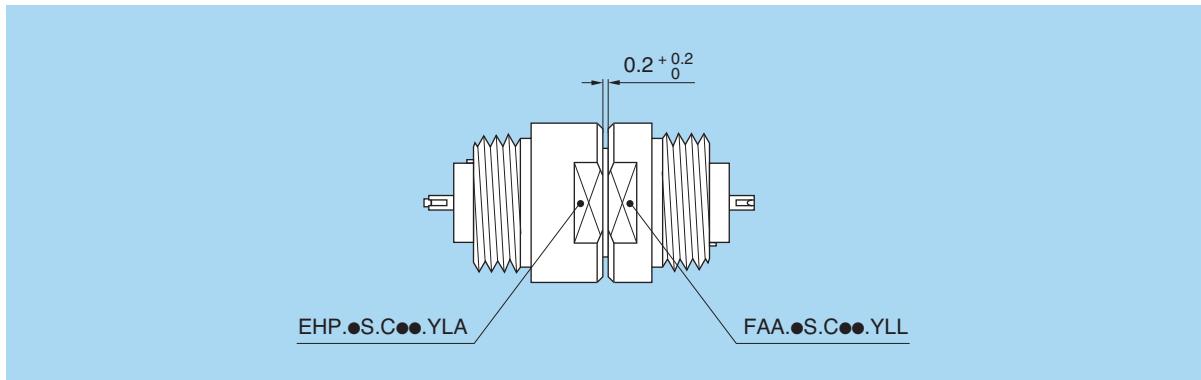
EHP Fixed socket (only compatible with FAA)



Reference		Dimensions (mm)						
Model	Series	A	C	e	D	L	M	S1
EHP	2S	18.0	8.95	M16x1.5	8.4	18.6	7.5	17.0
EHP	3S	22.0	10.95	M20x1.5	9.9	24.8	8.0	19.0
EHP	4S	25.0	13.95	M22x1.5	10.9	27.1	10.0	21.0
EHP	YS	30.0	18.70	M27x1.5	11.9	32.3	13.5	26.0
EHP	5S	35.0	22.90	M32x1.5	11.9	32.3	13.5	30.0

Part number example: EHP.●S.C●.YLA

For all the sizes (2S, 3S, 4S, YS, 5S), please respect the gap between plug and socket as shown below.



LEMO HEADQUARTERS

SWITZERLAND LEMO SA

Chemin des Champs-Courbes 28 - P.O. Box 194 - CH-1024 Ecublens
Tel. (+41 21) 695 16 00 - Fax (+41 21) 695 16 02 - e-mail: info@lemo.com

www.lemo.com