

# APPLICATION NOTE

## CONNECTION TO "SAS ISOLATOR"

AIR-HANDS-SURFACES

**N. 99/85**  
**JANUARY 2009**

APPLICATION NOTE

### Introduction

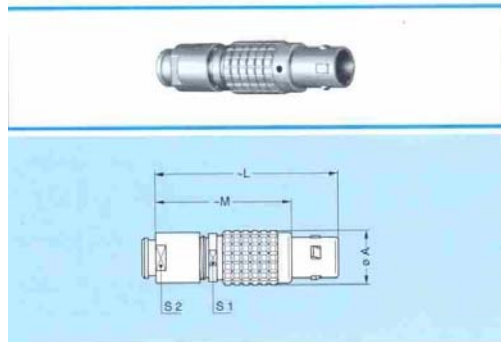
The "SAS Isolator" microbiological air sampler has been specifically developed and produced to be adapted to any type of isolator.  
 Which are most suitable connectors for the pass through wall of the isolator?

Different options are reported in the following documentation:



### LEMO CONNECTORS USED IN SAS ISOLATOR:

- Free plug (at the end of the cable coming out from control unit)



**FGG** Straight plug, key (G) or keys (A...M), cable collet and nut for fitting a bend relief <sup>2)</sup>

Reference		Dimensions (mm)				
Model	Series	A	L	M	S1	S2
FGG	00 <sup>1)</sup>	6.4	36.5	28.5	5.5	6
FGG	0B	9.5	35.0	25.0	8.0	7
FGG	1B	12.0	42.0	31.0	10.0	9
FGG	2B	15.0	49.0	37.0	13.0	12
FGG	3B	18.0	56.5	41.5	15.0	15
FGG	4B	25.0	71.0	53.0	21.0	20

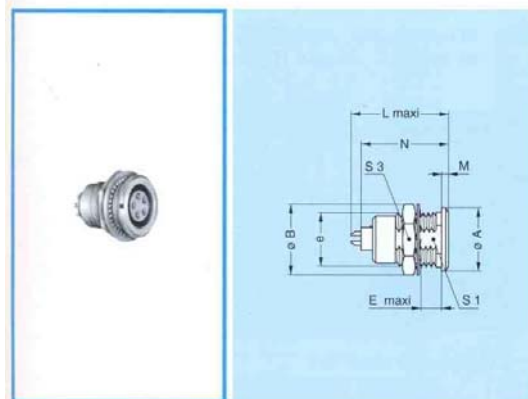
**M1**  
 Cable assembly  
 (page 161)

Note: <sup>1)</sup> the surface design of the 00 series is different.  
<sup>2)</sup> to order, add a «Z» at the end of the reference.

The bend relief must be ordered separately (see page 141).

the Lemo part number is FGG.0B.305.CLAD52Z, International PBI part number is 50113

- Panel socket ( in the aspiration chamber)



**EGG** Fixed socket, nut fixing, key (G) or keys (A...M and R)

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N <sup>1)</sup>	S1	S3
EGG	00	8	10.2	M7x0.5	6.0	15.5	1.0	13.7	6.3	9
EGG	0B	10	12.4	M9x0.6	7.0	20.7	1.2	19.1	8.2	11
EGG	1B	14	15.8	M12x1.0	7.5	23.0	1.5	21.1	10.5	14
EGG	2B	18	19.2	M15x1.0	8.5	26.7	1.8	24.6	13.5	17
EGG	3B	22	25.0	M18x1.0	11.5	30.7	2.0	28.1	16.5	22
EGG	4B	28	34.0	M25x1.0	12.0	35.7	2.5	34.1	23.5	30
EGG	5B	40	40.0	M35x1.0	11.0	43.5	3.0	39.6	33.5	-

**P1** Panel cut-out (page 152)

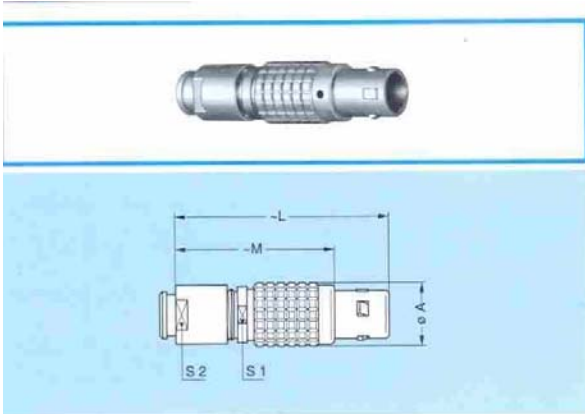
Note: <sup>1)</sup> maximum length with crimp contacts.  
 The 5B series is delivered with a tapered washer and a round nut.

the Lemo part number is EGG.0B.305.CLL, International PBI part number is 50120

**LEMO CONNECTORS USED IN EXTENSION CABLE (CODE 87898):**

As an option it is possible to order the SAS Isolator extension cable, part number 87898, that has the two following connectors and whose standard length is 3 mt:

- Free plug



**FGG** Straight plug, key (G) or keys (A...M), cable collet and nut for fitting a bend relief <sup>2)</sup>

Reference		Dimensions (mm)				
Model	Series	A	L	M	S1	S2
FGG	00 <sup>1)</sup>	6.4	36.5	28.5	5.5	6
FGG	0B	9.5	35.0	25.0	8.0	7
FGG	1B	12.0	42.0	31.0	10.0	9
FGG	2B	15.0	49.0	37.0	13.0	12
FGG	3B	18.0	56.5	41.5	15.0	15
FGG	4B	25.0	71.0	53.0	21.0	20

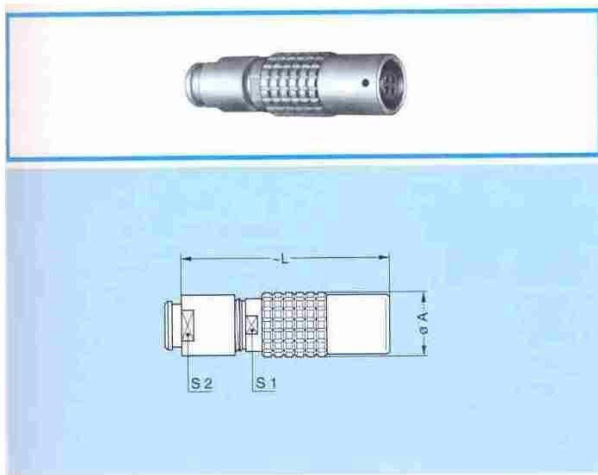
**M1**  
Cable assembly  
(page 161)

**Note:** <sup>1)</sup> the surface design of the 00 series is different.  
<sup>2)</sup> to order, add a «Z» at the end of the reference.

The bend relief must be ordered separately (see page 141).

the Lemo part number is FGG.0B.305.CLAD52Z, International PBI part number is 50113

- Free socket



**PHG** Free socket, key (G) or keys (A...M), cable collet and nut for fitting a bend relief <sup>2)</sup>

Reference		Dimensions (mm)			
Model	Series	A	L	S1	S2
PHG	00 <sup>1)</sup>	6.8	34.0	5.5	6
PHG	0B	9.5	34.5	8.0	7
PHG	1B	12.5	39.5	10.0	9
PHG	2B	16.5	46.0	13.0	12
PHG	3B	19.0	54.5	15.0	15
PHG	4B	24.4	69.0	21.0	20

**M1** Cable assembly (page 161)

**Note:** <sup>1)</sup> the surface design of the 00 series is different.  
<sup>2)</sup> to order, add a «Z» at the end of the reference.

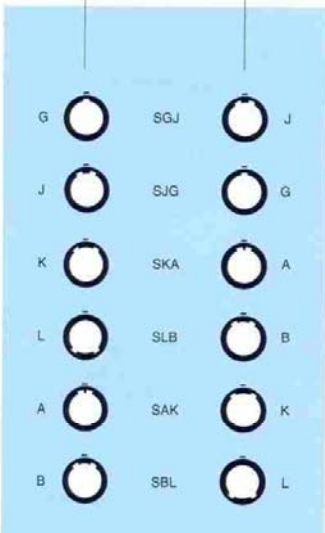
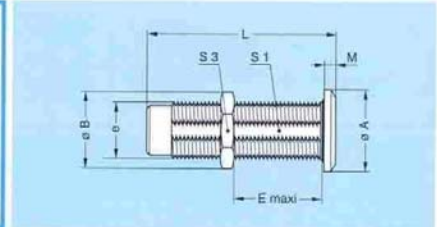
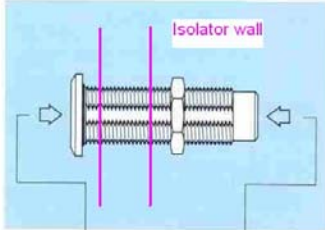
The bend relief must be ordered separately (see page 141).

the Lemo part number is PHG.0B.305.CLLD52Z, International PBI part number is 50136

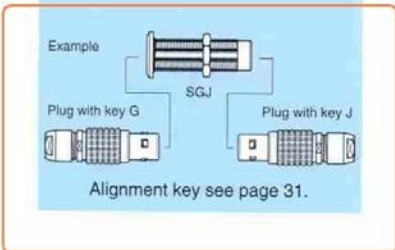
## ALTERNATIVE POSSIBLE METHOD TO CONNECT THE SAS ISOLATOR THROUGH THE ISOLATOR WALL

This double connector can be used as a pass-through isolator wall (see violet note in the picture)  
 Once a hole is drilled in the isolator wall, this vacuum-tight connector can be used to connect the isolator inside with outside (see orange note in picture). It is important that the isolator wall thickness is no more than 30mm (see red note for further mechanical details)

**S••** Fixed coupler, nut fixing, key (G) or keys (A, B, J, K and L) at the flange end and key (G) or keys (A, B, J, K and L) at the other end, watertight or vacuumtight



Reference		Contacts Type	Dimensions (mm)							
Model	Series		A	B	e	E	L	M	S1	S3
SGJ	0B	female – male	14	13.8	M10x0.75	17	34	2.0	9.0	12
SGJ	1B	female – male	17	15.8	M12x1.00	28	39	2.5	10.5	14
SJG		male – female								
SGJ	2B	female – male	20	21.5	M16x1.00	25	44	4.0	15.0	19
SJG		male – female								
SGJ	3B	female – male	25	27.0	M20x1.00	30	53	4.0	18.5	24
SJG		male – female								
SAK		female – male								
SBL		female – male								
SAK	4B	female – male	34	34.0	M25x1.00	50	65	4.0	23.5	30
SBL		female – male								
SGJ		female – male								
SJG	5B	male – female	45	40.0	M35x1.00	58	80	5.0	33.5	–
SKA		male – female								
SLB		male – female								
SAK		female – male								
SBL		female – male								



**P4** Panel cut-out (page 152)

**P9** Panel cut-out 1B series (page 152)

**Note:** for this fixed coupler, the first contact type mentioned is always the one at the flange end. On request these couplers can be produced in other series, with other keys. The 5B series is delivered with a round nut.