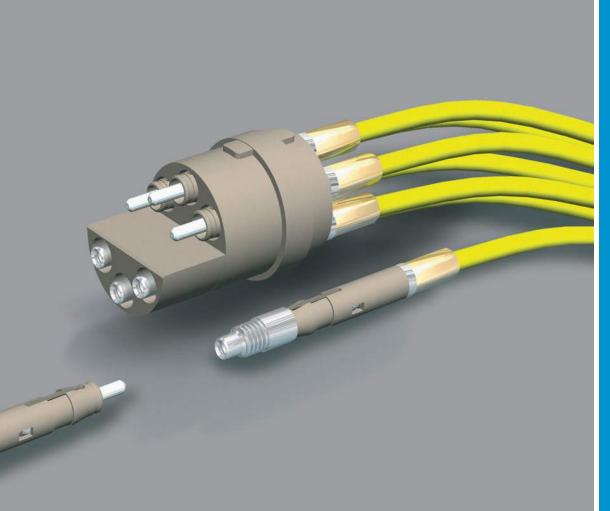
# MINIATURE F7 CONTACT FOR MULTI & HYBRID FIBRE OPTIC CONNECTORS







# MINIATURE FIBRE-OPTIC F7 CONTACT FOR MULTIFIBRE OR MIXED OPTICAL/ELECTRICAL OF THE 1K-5K AND 1B-5B SERIES

In addition to the existing F2 fibre optic contact shown in our catalogue of Fibre-Optic connectors No 5, the B and K series can now also be fitted with the new miniature F7 contact. The main benefits of using this contact are:

- Reduced size allowing increased contact density. As an example, a 4-channel fibre optic connector is now possible in series 3K/3B.
- Use of industry standard 1.25 mm diameter ferrule and polishing processes.

Contact design is based on the well-proven F2. Contacts fit onto buffered fibres or semitight jacket cables up to 2 mm in diameter.

This brochure shows only a sample of the available models of connectors. Refer to our catalogue No 5 for more detailed information of the full range of LEMO fibre optic connectors. Refer also to catalogue No 5 for accessories or tools specific to the electrical contacts used in hybrid connectors.





No reproduction or use without express permission of editorial or pictorial content, in any manner. LEMO SA reserve the right at all times to modify and improve specifications without any notification.

Printed in Switzerland, November 2003 Pdf updated March 2011



# **F7 Fibre Optic Contact**

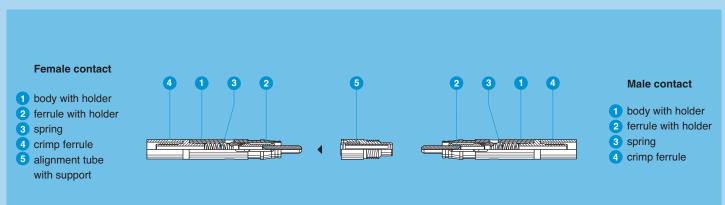
### Introduction

The F7 type contact is designed to fit multi fibre connectors or mixed fibre optical/electrical connectors from 1B to 5B, 1K to 5K series. The design is based on the well proven F2 contact. Its main features are as follows:

- Ceramic ferrules diameter 1.25 mm
- Simple and fast polishing ensuring the physical contact of the fibre end face
- After mounting on the cable, the contact is very easily installed in the main connector insulator, the particular shape of the contact body retains it in the insulator
- Single type of cable assembly, regardless of connector shell used
- The alignment tube can be easily removed in order to clean the fibre end face.

This contact makes it possible to use single fibre cables with single-mode or multi-mode fibres of the following sizes; 9/125, 50/125 and 62.5/125.

### **Part Section Showing Internal Components**



## **Technical Characteristics**

### **Material and Treatment**

Component	Material	Surface treatment (µm)				
Component	Iviaterial	Cu	Ni			
Body	PEEK	without tr	reatment			
Ferrule	Ceramic	without ti	reatment			
Holder	Alloy CuNiZn	without treatment				
Crimp holder	Brass	0.5	3			
Spring	Stainless steel	without tr	eatment			
Crimp ferrule	Cu 99	0.5	3			
Support	Alloy CuNiZn	without treatment				
Alignment tube	Ceramic	without treatment				

### **Mechanical and Environmental**

Characteristic	Value	Standard
Mating durability	> 1000 cycles	IEC 61300-02-02
Damp heat steady state	up to 93 % RH at 40°C	IEC 61300-02-19
High temperature	+85°C	IEC 61300-02-18
Low temperature	-40°C	IEC 61300-02-17
Cable retention	100 N	IEC 61300-02-04
Vibration (3 axes)	100 to 2000 Hz, 2 hrs	-
Change of temperature	-40 to +75°C	IEC 61300-02-22
Temperature/humidity	-10 to +65°C at 93 % RH	IEC 61300-02-21

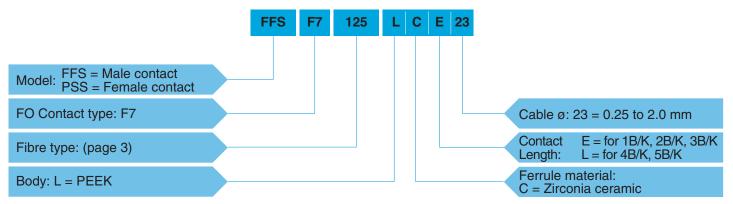
### Optical

Characteristic	Value	Standard	Method
Average insertion loss fibre 9/125 μm	0.18 dB	IEC 61300-03-34	Method 2
Average insertion loss fibre 50/125 μm	0.25 dB	IEC 61300-03-34	Method 2
Return loss fibre 9/125 µm (UPC)	≥45 dB	IEC 61300-03-06	Coupler Method
Return loss fibre 9/125 µm (Hand polish)	>25 dB	IEC 61300-03-06	Coupler Method

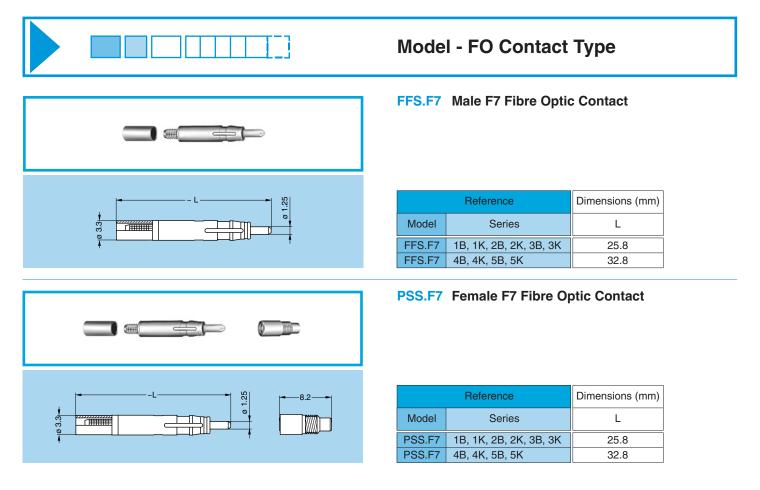


### Part Number Example

- F7 contacts are designed in 2 different lengths:
- the short version for 1B/K, 2B/K and 3B/K series, code E.
   the long version for 4B/K and 5B/K series, code L.



**FFS.F7.125.LCE23** = Male F7 type fibre optic contact, ferrule bore diameter of 125  $\mu$ m, PEEK body, Zirconia ceramic ferrule, contact length for 1B/K, 2B/K or 3B/K series, for cable with diameter max = 2.0 mm.





				Fibre Type
The choice o diameters to	of the ferrule hole c suit the users' spec	liameter is depe cific requiremen	endent upo ts.	on the fibre cladding size. LEMO offers a range of ferrule hole
Reference	ø Core/Cladding (µm)	Ferrule hole diameter (µm)	Note 1)	
125		125	•	
126	9/125 50/125 62.5/125	126	•	
128		128	0	First choice alternative Special order alternative
				·
				Accessories







PSS.F7.290.NZZ

Note: Alignment device should be ordered as replacement item.

**PSS** Alignment device for F7 fibre optic contact



### **FGG-EGG** Insulators

Insulators for 1B-5B and 1K-5K series vary according to the fibre optic contact type. For the new F7 contact insulators are:

	FO Contact	Insulator p	part number		
	Type F7	Male contact	Female contact		
1B/1K	92A	FGG.1B.302.FL	EGG.1B.402.FL		
2B/2K	03A	FGG.2B.302.FL	EGG.2B.402.FL		
20/2N	93B	FGG.2B.324.FL	EGG.2B.424.FL		
3B/3K	03C	FGG.3B.304.FL	EGG.3B.404.FL		
3D/3K	95B	FGG.3B.344.FL	EGG.3B.444.FL		
	03G	FGG.4B.308.FL	EGG.4B.408.FL		
4B/4K	03H	FGG.4B.309.FL	EGG.4B.409.FL		
	97B	FGG.4B.362.FL	EGG.4B.462.FL		
5B/5K	03Q	FGG.5B.316.FL	EGG.5B.416.FL		
JD/JK	03V	FGG.5B.321.FL	EGG.5B.421.FL		



# **1K-5K Series**

The new **F7** fibre optic contact has been designed to work in the 1K-5K series.

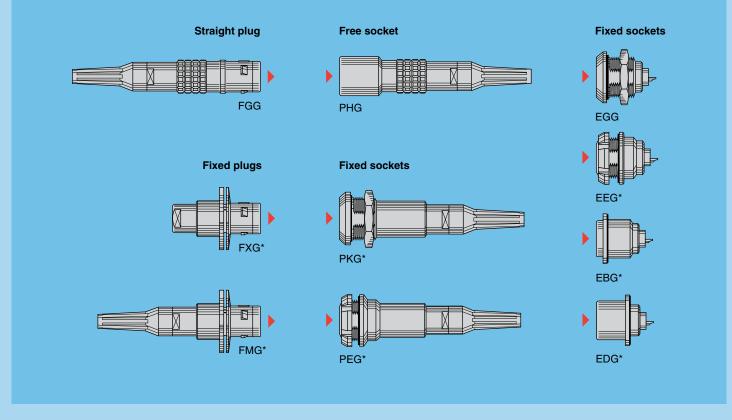
The main features of these series are as follows:

- Security of the LEMO Push-Pull self-latching system
- Specially designed for outdoors applications. All these models are waterproof when mated and reach a protection index of IP 66-IP 68, according to the IEC 60529 standard Protection against accidental contamination or damage to the fibre end face because the ferrules are recessed within
- the connector shell

- The alignment key (G, A...F, L and R) ensures excellent repeatability of performance during frequent matings
   A choice of configurations of multi fibre or mixed optical/electrical contacts
   The new miniature F7 contact allows hybrid configuration in the 1K series and multi fibre up to 21 channels in the 5K series.

The 1K-5K series consists of ten models which will accept outer cable diameters ranging from 2.6 mm to 23.5 mm.

### Interconnections



### **Model Description**

<b>EBG</b> Fixed socket with square flange, key (G) or keys (AF, L and R), four holes fixing	FGG Straight plug, key (G) of (AF, L and R), cable a and nut for fitting a bend	dapter	Free socket, key (G) or keys (A…F, L and R), cable adapter and nut for fitting a bend relief
<b>EDG</b> Fixed socket with square flange,	FMG Fixed plug with round fla	ange, four holes <b>PKG</b>	Fixed socket, nut fixing,
key (G) or keys (AF, L and R), protruding shell and earthing tag.	fixing, key (G) or keys ( cable adapter and nut fe		key (G) or keys (AF, L and R), cable adapter and nut for fitting a bend relief
screw fixing	FXG Fixed plug with round fla	ange, four holes	<b>3</b>
EEG Fixed socket, nut fixing, key (G) or keys (AF, L and R)	fixing, key (G) or keys ( PEG Fixed socket, nut fixing,		
(back panel mounting)	or kevs (AF. L and R)	. cable adapter	
EGG Fixed socket, nut fixing,	and nut for fitting a bend	Í relief *	Not show in this catalogue.
key (G) or keys (A…F, L and R)	(back panel mounting)		Refer to our catalogue No 5.

Certain models and certain key-ways may not be available in all series. Please consult us.



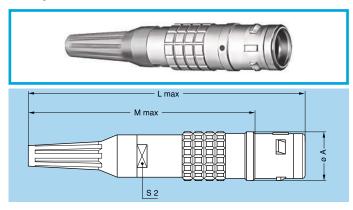
Part Number Example				_							
	FGG	ЗК	03C	CL	. A	Т 7	76	z ≺	Variant: s	ee note 1)	
Model: (see examples below)									Cable ø:	(page 9)	
Series: (see examples below)								_	Cable fixi T = cable	ng type: adapter	
Type: (page 8)								-	LV Conta	ct Type: (page 9)	
Housing: (C = chrome plated brass)									Insulator:	L = PEEK	

**FGG.3K.03C.CLAT76Z** = Straight plug with key (G), 3K series, multi-fibre type to accept 4 F7 type fibre optic contacts, chrome-plated brass housing, PEEK insulator, cable fixing type T for 7.5 mm diameter cable, and nut for fitting a bend relief.

# Connectors are delivered without fibre optic contacts. F7 fibre optic contacts must be ordered separately according to size and type of fibre (see pages 1 to 3).

Note: 1) The «Variant» position in the reference is used to indicate the presence of a collet nut for fitting the bend relief. The bend relief must be ordered separately.

### **Sample Models**



# FGG Straight plug, key (G) or keys (A...F, L and R), cable adapter and nut for fitting a bend relief

Refe	rence	Dimensions (mm)							
Model	Series	А	L	М	S2				
FGG	1K	13	92	78.0	9				
FGG	2K	16	101	85.0	12				
FGG	ЗK	19	109	89.0	15				
FGG	4K	25	131	110.5	19				
FGG	5K	38	160	135.0	30				



# PHG Free socket, key (G) or keys (A...F, L and R), cable adapter and nut for fitting a bend relief

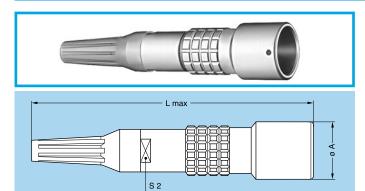
Refe	rence	Dimensions (mm)						
Model	Series	А	L	S2				
PHG	1K	15	95.0	9				
PHG	2K	19	103.0	12				
PHG	ЗK	23	113.0	15				
PHG	4K	29	135.5	19				
PHG	5K	42	164.0	30				

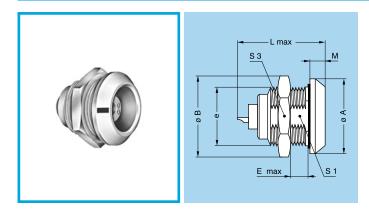
Note: The overall length dimension is with Desmopan bend relief

# EGG Fixed socket, nut fixing, key (G) or keys (A...F, L and R)

Refe	rence	Dimensions (mm)								
Model	Series	А	В	е	Е	L max <sup>1)</sup> F1 F2		М	S1	S3
EGG	1K	20	21.5	M16x1.0	9	31.0	41.0	4.5	14.5	19
EGG	2K	25	27.0	M20x1.0	9	31.0	41.0	5.0	18.5	24
EGG	ЗK	31	34.0	M24x1.0	11	35.5	42.5	6.0	22.5	30
EGG	4K	37	40.5	M30x1.0	9	37.0	41.0	6.5	28.5	36
EGG	5K	55	54.0	M45x1.5	10	40.5	42.0	9.0	42.5	-

Note:  $^{1)}$  The overall length (L) may vary depending upon the type of electrical LV or fibre optic contact fitted.







# **1B-5B Series**

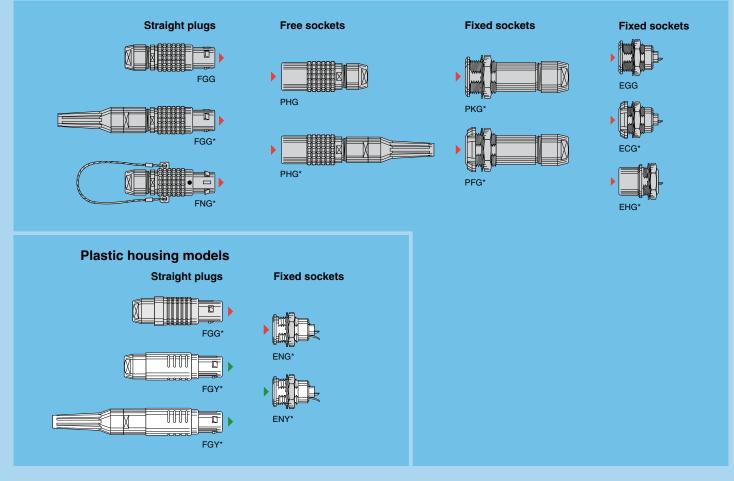
The new **F7** fibre optic contact has been designed to work in the 1B-5B series.

The main features of these series are as follows:

- Security of the LEMO Push-Pull self-latching system Protection against accidental contamination or damage to the fibre end face because the ferrules are recessed within the connector shell
- The alignment key (G, A...L, Y and R) ensures excellent repeatability of performance during frequent matings A choice of configurations of multi fibre or mixed optical/electrical contacts
- The new miniature F7 contact allows hybrid configuration in the 1B series and multi fibre up to 21 channels in the 5B series.

The 1B-5B series consist of fifteen models. The possible outer cable diameters range from 2.1 to 25 mm.

### Interconnections



### **Model Description**

EC	G Fixed socket, with two nuts, key (G) or keys (AL and R),	FGG	Straight plug, key (G or J), cable collet, PEEK outer shell	PHG	Free socket, key (G) or keys (AL) and cable collet and nut
	(back panel mounting)	FGY	Straight plug, keys (Y), cable collet		for fitting a bend relief
EG	G Fixed socket, nut fixing,		and PSU or PPSU outer shell	PKG	Fixed socket, nut fixing, key (G)
	key (G) or keys (AL and R)	FGY	Straight plug, keys (Y), cable collet		or keys (AL and R) and cable collet
EH	G Fixed socket, nut fixing, key (G)		and PSU or PPSU outer shell		
	or keys (AL and R) with visible shell		and nut for fitting a bend relief		
EN	G Fixed socket with grounding tab,	FNG	Straight plug, key (G) or keys		
	nut fixing, key (G or J), PEEK outer shell		(AL and R) and cable collet		
EN	Y Fixed socket with grounding tab, nut		with lanyard release		
	fixing, keys (Y), PSU or PPSU outer shell	PFG	Fixed socket, with two nuts,		
FG	G Straight plug, key (G) or keys		key (G) or keys (A…L and R)		
	(AL and R) and cable collet		and cable collet (back panel mounting)		
FG	G Straight plug, key (G) or keys (AL)	PHG	Free socket, key (G)	*	Not show in this catalogue.
	cable collet and nut for fitting a bend relief		or keys (AL and R) and cable collet		Refer to our catalogue No 5.
					-

Certain models and certain key-ways may not be available in all series. Please consult us.



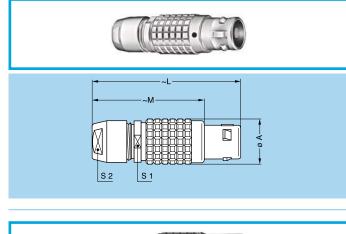
Part Number Example	nher Fxample							 		
	FGG	2B	93B	С	L	Α	D 7	2	<b>z</b>	Variant: see note 1)
Model: (see examples below)										Cable ø: (page 9)
Series: (see examples below)										Collet type: (page 9)
Type: (page 8)										LV contact type: (page 9)
Housing: (C = chrome plated brass)										Insulator: L = PEEK

**FGG.2B.93B.CLAD72Z** = Straight plug with key (G), 2B series, mixed type to accept 2 F7 fibre optic contact and 4 low voltage electrical contacts, chrome-plated brass housing, PEEK insulator, 4 male solder electrical contacts, type D collet system to suit a 7.0 to 6.1 mm diameter cable, and a nut for fitting a bend relief.

Connectors are delivered without fibre optic contacts. F7 fibre optic contacts must be ordered separately according to size and type of fibre (see pages 1 to 3).

Note: 1) The «Variant» position in the reference is used to indicate the presence of a collet nut for fitting the bend relief. The bend relief must be ordered separately.

### **Sample Models**



# FGG Straight plug, key (G) or keys (A...L and R) and cable collet

Refe	Dimensions (mm)						
Model	Series	A L		М	S1	S2	
FGG <sup>1)</sup>	1B	12	722)	61 <sup>2)</sup>	10	9	
FGG	2B	15	50	38	13	12	
FGG	3B	18	58	43	15	14	
FGG	4B	25	75	57	21	20	
FGG	5B	35	103	78	31	30	

 Note: 1) Models can be delivered only with «T» type of cable adapter and nut for fitting a bend relief.
 2) Lengths include the bend relief.

# PHG Free socket, key (G) or keys (A...L and R) and cable collet

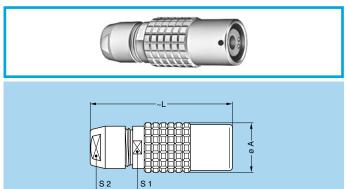
Refe	Dimensions (mm)						
Model	Series	А	L	S1	S2		
PHG <sup>1)</sup>	1B	12.5	69.5 <sup>2)</sup>	10	9		
PHG	2B	16.5	47.0	13	12		
PHG	3B	19.0	56.0	15	14		
PHG	4B	24.4	73.0	21	20		
PHG	5B	34.2	99.0	31	30		

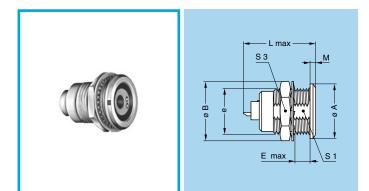
 Note: 1) Models can be delivered only with «T» type of cable adapter and nut for fitting a bend relief.
 2) Lengths include the bend relief.

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

Refe	rence	Dimension					ıs (mm)					
Model	Series	Α	В	е	E	L max <sup>1)</sup> F1 F2		М	S1	S3		
EGG	1B	14	16	M12x1	7.5	27.0	37.0	1.5	10.5	14		
EGG	2B	18	19.2	M15x1	8.5	27.0	37.0	1.8	13.5	17		
EGG	3B	22	25.0	M18x1	11.5	30.0	37.0	2.0	16.5	22		
EGG	4B	28	34.0	M25x1	12.0	34.5	38.5	2.5	23.5	30		
EGG	5B	40	40.0	M35x1	11.0	36.5	38.0	3.0	33.5	-		

Note:  $^{1)}$  The overall length (L) may vary depending upon the type of electrical LV or fibre optic contact fitted.





=///				
	1			Т

# **Types**

### Multi fibre and Mixed fibre optic (F7 contact) + LV

		_						Low V	oltage	contac	t		
			Reference				Con typ	tact ce	con		con	mp tact	
	ح ا Male solder contacts	Female solder contacts	Reference FO Contact Type						' ms) <sup>1)</sup>	' ms) <sup>1)</sup>	' rms) <sup>1)</sup>	' rms) <sup>1)</sup>	1
				tic No	No	(			tage (kV contact	tage (kV shell	tage (kV contact	tage (kV shell	urrent (A
	Male crimp contacts	Female crimp contacts	F7	Fibre optic No	Contact No	ø A (mm)	Solder	Crimp	Test voltage (kV ms) <sup>1)</sup> Contact-contact	Test voltage (kV ms) <sup>1)</sup> Contact-shell	Test voltage (kV ms) <sup>1)</sup> Contact-contact	Test voltage (kV ms) <sup>1)</sup> Contact-shell	Rated current (A)
1B 1K			92A	1	2	0.9	•	•	0.90	1.50	1.20	1.80	7.0
2B 2K		<b>O</b>	03A	2	_	_	_	_	_	_	_	_	_
			93B	2	4	0.7	•	•	0.85	1.20	0.85	1.25	6.0
3B 3K			03C	4	_	_	_	_	_	_	_	_	_
			95B	4	4	0.9	•	•	1.20	1.05	1.00	0.80	8.0
4B 4K			03G	8	_	_	_	_	_	_	_	_	_
			03H	9	_	_	_	_	-	_	_	_	_
			97B	6	2	1.6	•	•	1.20	1.30	1.30	1.05	13
5B 5K			03Q	16	_	_	_	_	_	_	_	_	_
			03V	21	_	_	_	_	_	_	_	_	_

### Note: 1) Test voltage

Test voltage (Ue): (measured according to the IEC 60512-2 test 4a standard).

It corresponds to 75% of the mean breakdown voltage. Test voltage is applied at 500 V/s and the test duration is one minute.

This test has been carried out with a mated plug and receptacle, with power supply only on the plug end.

Operating voltage (Us): It is proposed according to the following ratio: Us =  $\frac{Ue}{3}$ 

Caution:

For a number of applications, safety requirements for electrical appliances are more severe with regard to operating voltage.





# **Electrical Contact**

### Contact for plug, socket, and fixed socket

Ref.	Contact type				
А	male solder				
С	male crimp				
L	female solder				
М	female crimp				
Z	no contact				

- i

### T type cable adapter

	Refe	rence	Cable ø		Bend relief to be used <sup>1)</sup>
	Туре	ø	max.	min.	Bena reliei to be used "
1B	Т	36	3.5	2.6	GMA.1B.030.D•
	Т	46	4.5	3.6	GMA.1B.040.D•
1K					
	Т	46	4.5	3.6	GMA.2B.040.D•
2K	Т	56	5.5	4.6	GMA.2B.050.D•
	Т	66	6.5	5.6	GMA.2B.060.D•
	Т	46	4.5	3.6	GMA.2B.040.D•
<b>3K</b>	Т	56	5.5	4.6	GMA.2B.050.D•
••••	Т	66	6.5	5.6	GMA.2B.060.D•
,	Т	76	7.5	6.6	GMA.3B.070.D•
	Т	86	8.5	7.6	GMA.3B.080.D•
	Т	91	9.0	8.1	GMA.3B.080.D•
	Т	46	4.5	3.6	GMA.2B.040.D•
4K	Т	56	5.5	4.6	GMA.2B.050.D•
	Т	66	6.5	5.6	GMA.2B.060.D•
	Т	76	7.5	6.6	GMA.3B.070.D•
	Т	86	8.5	7.6	GMA.3B.080.D•
	Т	96	9.5	8.6	GMA.4B.010.De <sup>2)</sup>
	Т	11	11.5	10.6	GMA.4B.011.D•
	Т	13	13.5	12.6	GMA.4B.013.D•
	Т	61	6.0	5.1	GMA.2B.057.R•
5K	Т	71	7.0	6.1	GMA.3B.060.D•
	Т	81	8.0	7.1	GMA.3B.070.D•
	Т	91	9.0	8.1	GMA.3B.080.D•
	Т	96	9.5	8.6	GMA.4B.010.De <sup>2)</sup>
	Т	10	10.5	9.6	GMA.4B.010.D•
	Т	11	11.5	10.6	GMA.4B.011.D•
	Т	12	12.5	11.6	GMA.4B.012.D•
	Т	13	13.5	12.6	GMA.4B.013.D•
	Т	14	14.5	13.6	GMA.4B.013.D•
	Т	15	15.5	14.6	heat-shrink tube 3)
	Т	16	16.5	15.6	heat-shrink tube
	Т	17	17.5	16.6	heat-shrink tube
	Т	18	18.5	17.6	heat-shrink tube
	Т	19	19.5	18.6	heat-shrink tube
	Т	20	20.5	19.6	heat-shrink tube
	Т	21	21.5	20.6	heat-shrink tube
	T	22	22.5	21.6	heat-shrink tube
	Т	23	23.5	22.6	heat-shrink tube

# Collets (K and B series)

### D and M type collets

	Refe	rence	Cable ø				
	Туре	Ø	max.	min.			
	М	31	3.2	> 2.2			
<b>2B</b>	D	42	4.2	> 3.2			
	D	52	5.2	> 4.2			
	D	62	6.2	> 5.2			
	D	72	7.2	> 6.2			
	D	82	8.2	> 7.2			
	D	92	9.2	> 8.2			
	М	52	5.2	> 4.2			
<b>3B</b>	D	62	6.2	4.9			
	D	72	7.7	> 6.2			
	D	92	9.2	> 7.7			
	D	10	10.7	> 9.2			
	D	12	11.9	> 10.7			
	М	62	6.0	5.1			
<b>4B</b>	М	72	7.0	6.1			
	М	82	8.0	7.1			
	М	92	9.0	8.1			
	D	10	10.5	9.1			
	D	12	12.0	10.6			
	D	13	13.5	12.1			
	D	15	15.0	13.6			
	D	11	11.5	9.6			
<b>5B</b>	D	13	13.5	11.6			
	D	15	15.5	13.6			
	D	17	17.5	15.6			
	D	19	19.5	17.6			
	D	21	21.5	19.6			
	D	23	23.5	21.6			
	D	25	25.0	23.6			

Note:
1) The bend relief is to be ordered separately.
2) Add a short piece of heat-shrink tubing under the bend relief.
3) The heat-shrink tube is supplied.

All dimensions are in millimeters.





# **Fibre Optic Tooling**

We offer a complete range of tools for fibre optic connector cable assembly.

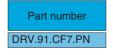
Some tools are specific to each fibre optic contact type. When selecting necessary tooling, make sure you identify correctly the contact type used in the selected product.



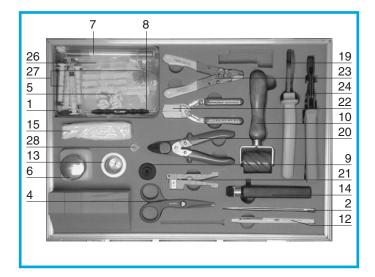
### **DRV** Complete workstation for fibre optic contact

### Description

**Description** Comprehensive range of tools for terminating both single-mode and multi-mode fibres. Includes specific tools for F7 fibre optic contacts. Detachable termination case lid for use as polishing platform during field termination. Rugged but aesthetically pleasing termination case which is ideal for field use or in-house terminations. Curing oven and inspection microscope should be ordered separately. and inspection microscope should be ordered separately.



# 18 25 17 16 26 11 3 29 30 31

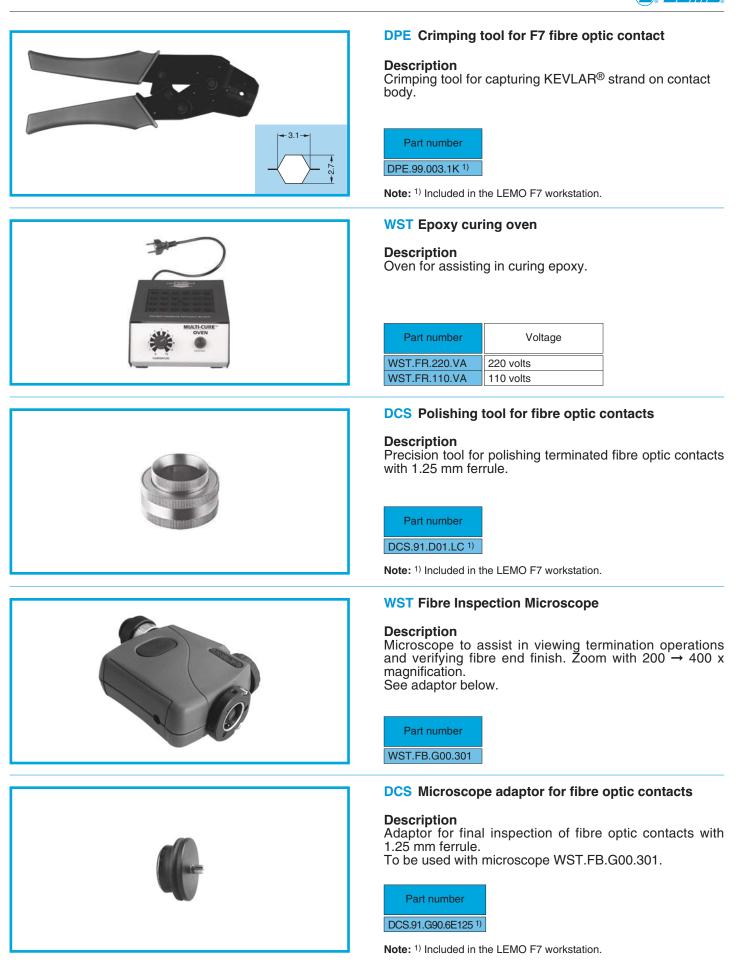


### **Workstation Contents**

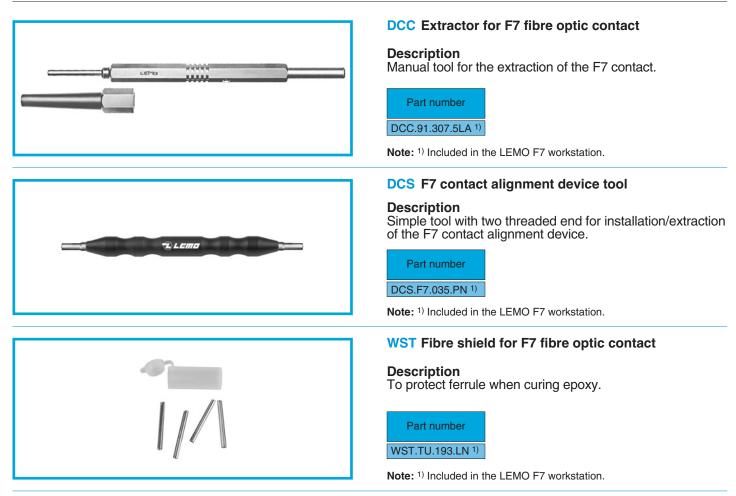
Part Number	Description	Quantity	Number
WST.BT.175.55PT	Plastic box	1	1
WST.BR.150.8AC	Tweezers	1	2
WST.CH.252.5SR	Lint-free Cloth	1	3
WST.CS.125.CE	Kevlar cutters	1	4
WST.CO.020.52	Cotton bud (sachet of 20 pcs)	1	5
WST.DS.290.PT	Alcohol dispenser (supplied empty)	1	6
DCC.91.307.5LA	Extraction tool for F7 contact	1	7
DCS.F7.035.PN	Alignment device tool	1	8
DCS.91.G90.6E125	Microscope adapter for F7 contacts	1	9
WST.ME.354.8R	Epoxy mixer and pad	1	10
DOC.FO.CF7.0000	Terminating instructions for F7 contacts	1	11
WST.OU.135.10SZ	Fibre scribe	1	12
DCS.91.D01.LC	Polishing tool for F7 contacts	1	13
WST.OU.452.5MN	Large cable stripper		14
WST.PA.105.5525	Cleaning tissues	1	15
WST.PA.012.AOJ	Lapping film 12µm (yellow)	20	16
WST.PA.005.AOM	Lapping film 5µm (brown)	20	17
WST.PA.001.DIL	Lapping film 1µm (lavander) diamond	5	18
WST.PN.210.AS	Armoured cable cutter	1	19
WST.PN.145.AR	Cable cutter	1	20
WST.PN.103.0PG	Outer jacket stripper	1	21
WST.PN.203.CR	Buffer coating stripping tool	1	22
WST.PN.102.3CR	Primary coat stripper	1	23
DPE.99.003.1K	Crimp tool	1	24
WST.PL.322.5PT	Polishing platform	1	25
WST.RE.353.EPO	Epoxy resin + safety instructions	10	26
WST.SE.305.8PH	Syringe with needle # 19 & # 20	10	27
WST.TU.193.LN	Fibre shield for F7 contacts	4	28
WST.RG.150.AZ	Steel rule 6" (152 mm)	1	29
WST.SY.135.PA	Fibre length marking pen	1	30
WST.CS.155.AZ	Scissors	1	31

Note: The interior of the case is fitted with pre-formed plastic foam to provide secure storage of the tools.









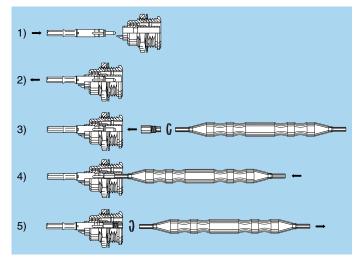
### **Cable Termination**

Detailed instructions for terminating single fibre cables with LEMO F7 fibre optic contacts are given in the reference manual DOC.FO.CF7.0000 supplied with the complete termination workstation (see page 10). After termination contacts shall be introduced in the main insulator as shown below. For purpose of cleaning they can also be removed.

### Installation of F7 contact and alignment device

### Insertion

The male fibre optic contact terminated on the cable must be inserted into the connector insulator from the back end until it comes to a stop. Make sure that the contact is correctly positioned into the inner antirotation key. Key is in line with the red dot on the rear of the contact (step 1). Check that the contact is correctly retained by gently pulling on it (step 2).

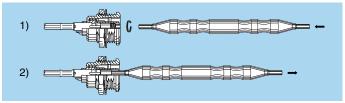


For female contacts, the alignment device shall be clipped onto the fibre optic contacts which is already fitted into female insulator. This procedure is performed using the tool, reference DCS.F7.035.PN.

The alignment device shall be first installed onto threaded end of the tool (step 3). Then clip the adapter (step 4), unscrew and remove the tool (step 5).

### **Extraction of alignment device**

Screw the threaded end of the tool reference DCS.F7.035.PN (step 1) onto the alignment device. Pull out strongly (step 2).



### **Extraction of F7 contact**

Possible only for fixed socket, using the manual tool DCC.91.307.5LA. Shall be made with great care.

 $\ensuremath{\text{Note:}}$  The life time installation of the alignment device is minimum 300 cycles.



### **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

### **LEMO** SUBSIDIARIES

### AUSTRIA

AUSTRIA LEMD Elektronik GesmbH Lemböckgasse 49/E6-3 1230 Wien Tel: (+43 1) 914 23 20 0 Fax:(+43 1) 914 23 20 11 sales@lemo.at

### 

CHINA LEMO Trading (Shanghai) Co., Ltd LEMO Electronics (Shanghai) Co., Ltd 5th Floor, Block 6, City of ELITE, 1000 Jinhai Road, Pudong Shanghai, China 201206 Tel: (+86 21) 5899 7721 Fax: (+86 21) 5899 7727 cn.sales@lemo.com

DENMARK LEMO Denmark A/S Gammel Mosevej 46 2820 Gentofte Tel: (+45) 45 20 44 00 Fax: (+45) 45 20 44 01 info-dk@lemo.com

FRANCE LEMO France Sàrl 24/28 Avenue Graham Bell Bâtiment Balthus 4 Bussy Saint Georges 77607 Marne la Vallée Cedex 3 Tel: (+33 1) 60 94 60 94 Fax: (+33 1) 60 94 60 90 info-fr@lemo.com

**GERMANY LEMO Elektronik GmbH** Hanns-Schwindt-Str. 6 81829 München Tel: (+49 89) 42 77 03 Fax: (+49 89) 420 21 92 info@lemo.de

HONG KONG LEMO Hong Kong Ltd Unit 1207, 12/F, Corporation Square, 8 Lam Lok Street, Kowloon Bay, Kowloon - Hong Kong Tel: (+852) 2174 0468 Fax: (+852) 2174 0492 hk.sales@lemo.com

HUNGARY REDEL Elektronika Kft Nagysándor József u. 6-12 1201 Budapest Tel: (+36 1) 421 47 10 Fax: (+36 1) 421 47 57 redelemo@lemo.hu

**ITALY LEMO Italia srl** Viale Lunigiana 25 20125 Milano Tel: (+39 02) 66 71 10 46 Fax: (+39 02) 66 71 10 66 sales.it@lemo.com

JAPAN LEMO Japan Ltd 4-10-3, Takaido Higashi, Suginami-ku, Tokyo, 168-0072 Tel: (+81 3) 53 44 39 33 Fax: (+81 3) 53 44 39 35 lemoinfo@lemo.co.jp

### LEMO DISTRIBUTORS

AUSTRALIA, BRAZIL, CANADA, CZECH REPUBLIC, GREECE, INDIA, ISRAEL, NEW ZEALAND, POLAND, RUSSIA, SOUTH AFRICA, SOUTH KOREA, TAIWAN, TURKEY, UKRAINE

# NETHERLANDS / BELGIUM LEMO Connectors Benelux De Trompet 2108 1967 DC Heemskerk Tel. (+31) 251 25 78 20 Fax (+31) 251 25 78 21 info@lemo.nl

NORWAY / ICELAND LEMO Norway A/S Stanseveien 6B 0975 Oslo Tel: (+47) 22 91 70 40 Fax: (+47) 22 91 70 41 info-no@lemo.com

SINGAPORE LEMO Asia Pte Ltd 4 Leng Kee Road, #06-09 SiS Building Singapore 159088 Tel: (+65) 6476 0672 Fax: (+65) 6474 0672 sg.sales@lemo.com

**SPAIN / PORTUGAL IBERLEMO S.A.** Brasil, 45, 08402 Granollers Barcelona Tel: (+34 93) 860 44 20 Fax: (+34 93) 879 10 77 info-es@lemo.com

Madrid Office Antonio López, 96, 28019 Madrid Tel: (+34 91) 469 99 19 Fax: (+34 91) 469 99 59

SWEDEN / FINLAND LEMO Nordic AB Mariehällsvägen 39A 168 65 Bromma Tel: (+46 8) 635 60 60 Fax: (+46 8) 635 60 61 info-se@lemo.com

SWITZERLAND LEMO Verkauf AG Grundstrasse 22 B 6343 Rotkreuz Tel: (+41 41) 790 49 40 Fax: (+41 41) 790 49 43 ch.sales@lemo.com

UNITED KINGDOM LEMO UK Ltd 12-20 North Street Worthing West Sussex, BN11 1DU Tel: (+44 1903) 23 45 43 Fax: (+44 1903) 20 62 31 lemouk@lemo.com

USA LEMO USA Inc P.O. Box 2408 Rohnert Park, CA 94927-2408 Tel: (+1 707) 578 88 11 (+1 800) 444 53 66 Fax:(+1 707) 578 08 69 info@lemousa.com