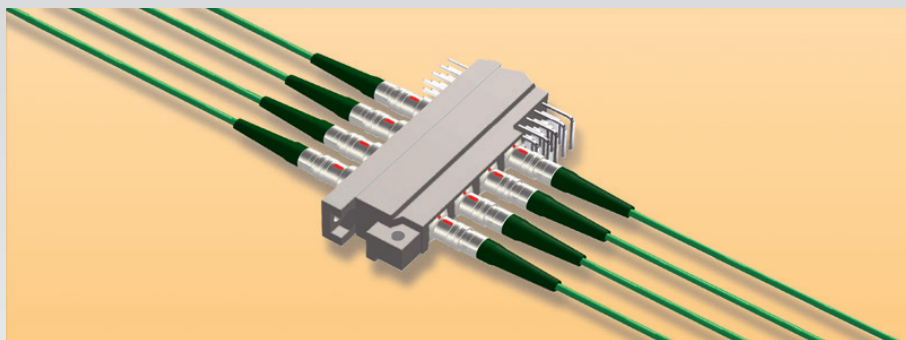
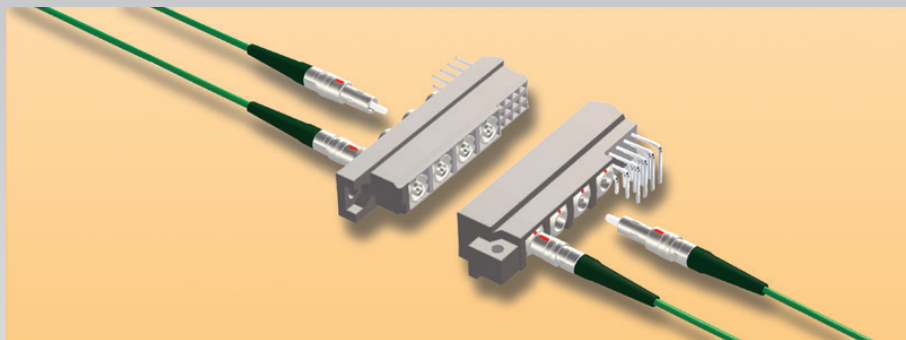
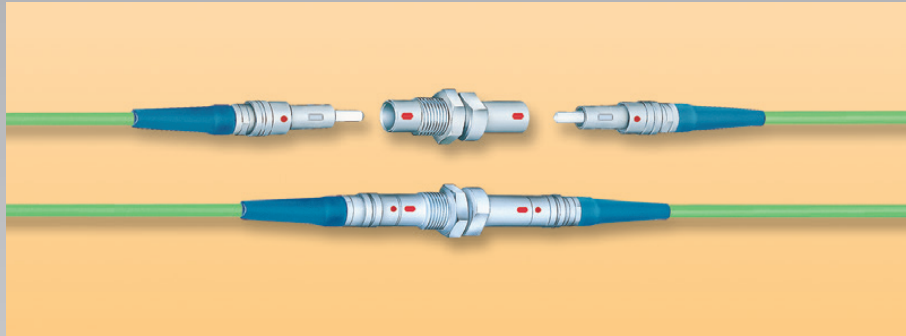


S E R I E 0 1 S E R I E S



MINIATURE FIBRE OPTIC CONNECTORS  
MINIATUR LWL STECKVERBINDER



## **Product safety notice & disclaimers**

Please read and follow all instructions specified on the last page or on our [website](#) carefully and consult all relevant national and international safety regulations for your application. Improper handling, cable assembly, or wrong use of connectors can result in hazardous situations.

LEMO products and services are provided "as is." LEMO makes no warranties or representations with regard to LEMO product & services or use of them, express, implied or statutory, including for accuracy, completeness, or security.

In no event shall LEMO be liable for any direct, indirect, punitive, incidental, special consequential damages, to property or life, whatsoever arising out of or connected with the use or misuse of LEMO's products.

## Miniature Fibre Optic Connectors Miniatur LWL Steckverbinder

### 01 Series

The COELVER 01 series fibre optic connector features a fully floating 1.25 mm ceramic ferrule which provides excellent mechanical, environmental and optical performance.

The Coelver self-latching Push-Pull system ensures fast and efficient installation.

Due to its size, it is ideally suited for high density bulkhead or rack mounting applications. They can also be used in DIN 41612 connectors by using specially designed adapters.

The Coelver 01 provides a professional high performance fibre optic connection system, suitable for telecom, datacom and digital broadcasting applications.

### 01 Serie

Der COELVER 01 Lichtwellenleitersteckverbinder ist mit einer Keramikferrule, 1,25 mm, schwimmend in axialer und radialer Richtung ausgerüstet.

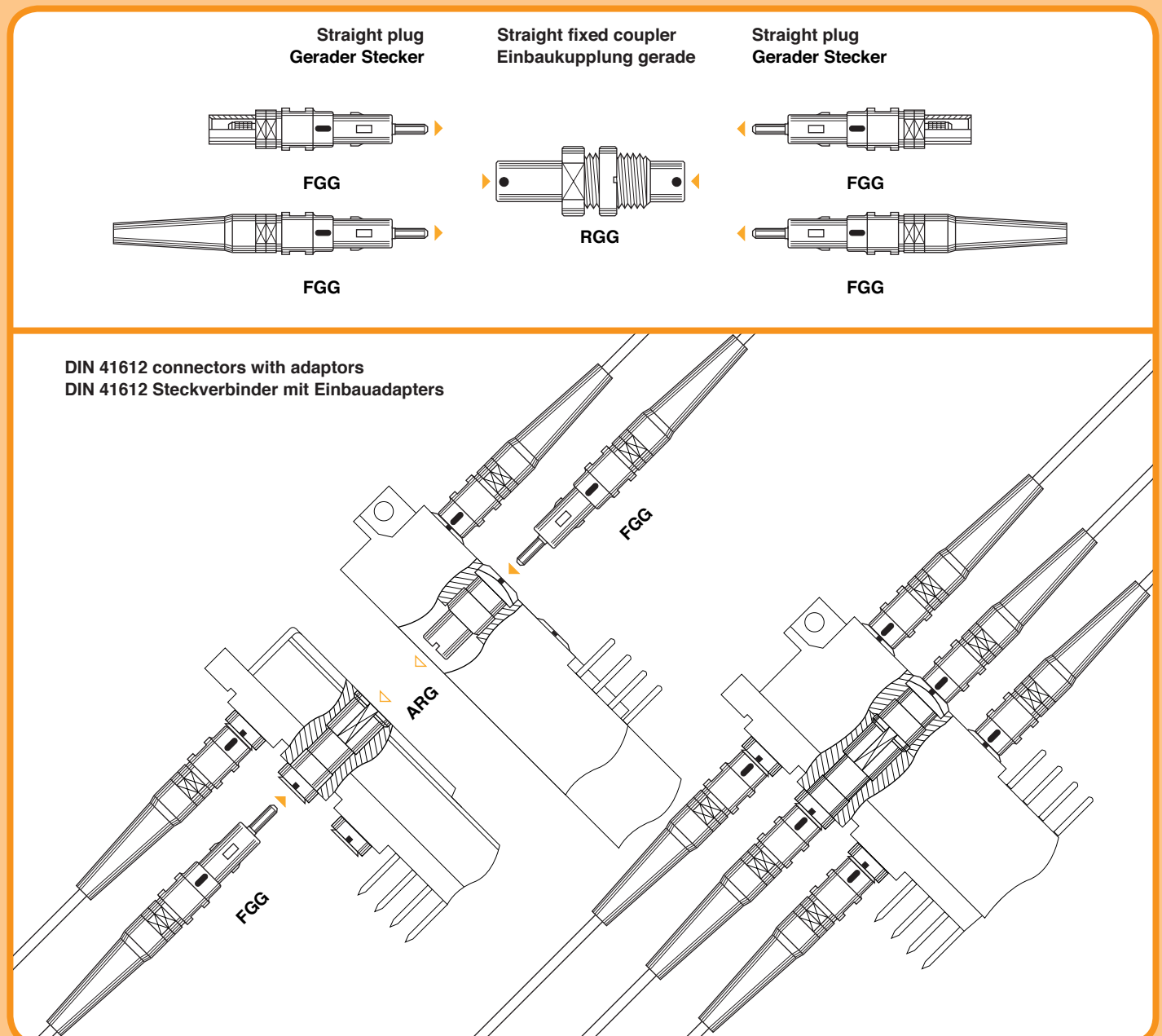
Hierdurch erhält das System eine hohe mechanische und optische Leistungsfähigkeit.

Aufgrund ihrer geringen Abmessungen ist diese Steckverbindung für dichte Frontplattenbestückung sowie Einbau in Schaltschranken sehr geeignet. Sie kann auch mit Steckverbindungen nach DIN 41612 durch Einsatz eines speziell dafür entworfenen Adapters verwendet werden.

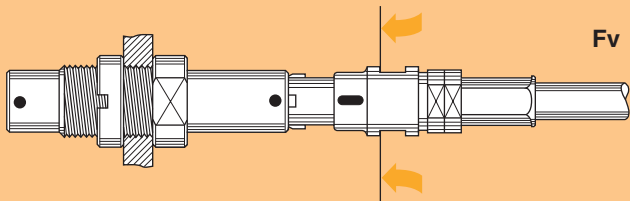
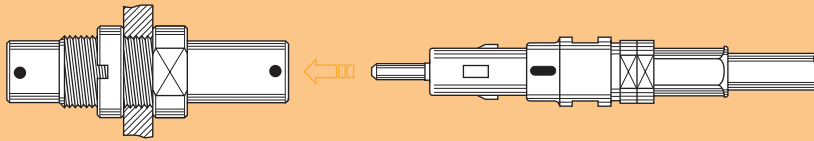
Die Adaptereinsätze für die entsprechende Leiste sind zum Patent angemeldet.

Hierdurch erhält man ein hochleistungsfähiges Lichtwellenleit-Steckverbindingssystem, welches für den Einsatz von Telecom, Datacom und digitale Applikationen geeignet ist.

### Interconnections/Steckbeispiele

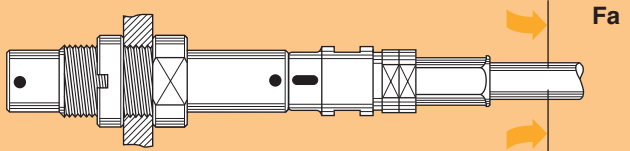


## Push-Pull self-latching connection / Push-Pull Selbstverriegelnde Verbindung



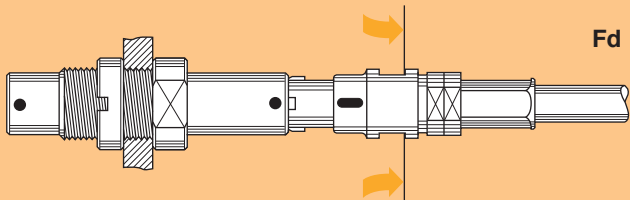
**1** The COELVER self-latching system allows the connector to be mated by simply pushing the plug axially into the coupler.  **$F_v = 7.5 \pm 1N$**

Das COELVER Selbstverriegelungssystem erlaubt ein Kuppeln durch einfachen axialen Druck des Steckers in die Einbaukupplung.  **$F_v = 7.5 \pm 1N$**



**2** Once firmly latched, connection cannot be broken by pulling on the cable or any other component part other than the outer release sleeve.  **$F_a > 100N$**

Nach fester Verriegelung ist die Verbindung durch axialen Zug am Kabel oder an anderen Bestandteilen unlösbar. Ausser durch Zug an der Entriegelungshülse.  **$F_a > 100N$**

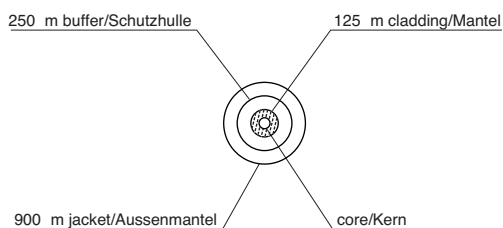


**3** When required, the connector is disengaged by a single straight axial pull on the outer release sleeve. This first disengages the latches and then withdraws the plug from the coupler.  **$F_d = 4 \pm 1N$**

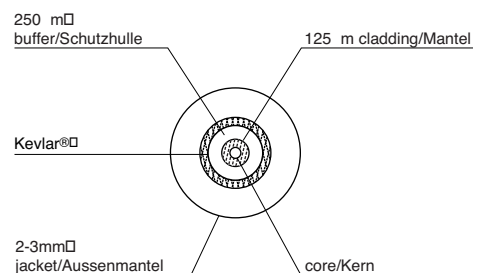
Die Entriegelung zwischen Stecker und Dose erfolgt durch axiales Ziehen am Stecker-Außenkörper. So werden die Krallen entriegelt und dann wird der Stecker aus der Einbaukupplung gezogen.  **$F_d = 4 \pm 1N$**

## Recommended cable / Empfohlene Kabel

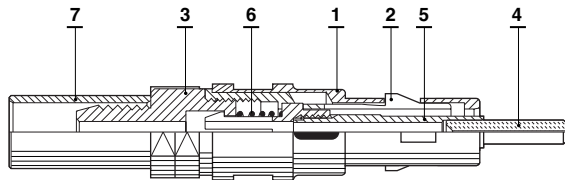
### 900 $\mu$ m plastic buffered fibre



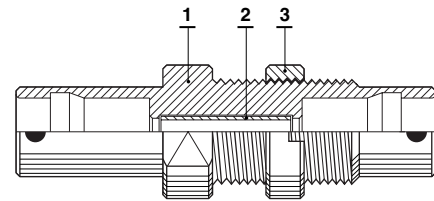
### 2-3 mm simplex semi-tight jacket cable



## Examples of Construction / Konstruktionsbeispiele



**Straight plug for crimping**  
Gerader Stecker zum Crimpen



**Straight fixed coupler**  
Einbaukupplung gerade

## Material and treatment / Material Schlussbehandlung

### Straight plug

Part	Material (standard)	Treatment
1 Housing	Brass (UNS C 38500)	Cu 0.5µm + Ni 3µm
2 Latch sleeve	Beryllium copper (UNS C 17300)	Cu 0.5µm + Ni 3µm
3 Crimp backnut	Brass (UNS C 38500)	Cu 0.5µm + Ni 3µm
4 Ferrule	Ceramic (zirconia)	-
5 Ferrule holder	Stainless steel (AISI 303)	-
6 Spring	Stainless steel	-
7 Crimp ferrule	Copper (UNS C 18700)	Cu 0.5µm + Ni 3µm

### Straight fixed coupler

Part	Material (standard)	Treatment
1 Housing	Brass (UNS C 38500)	Cu 0.5µm + Ni 3µm
2 Alignment sleeve	Ceramic (zirconia)	-
3 Round nut	Brass (UNS C 38500)	Cu 0.5µm + Ni 3µm

### Gerader Stecker

Bestandteil	Material (Norm)	Behandlung
1 Steckkörper	Messing (UNS C 38500)	Cu 0.5µm + Ni 3µm
2 Verriegelungshülse	Berilliumkupfer (UNS C 17300)	Cu 0.5µm + Ni 3µm
3 Crimpschraube	Messing (UNS C 38500)	Cu 0.5µm + Ni 3µm
4 Hülse	Keramik (Zirkonium)	-
5 Hülsenhalter	Rostfreier Stahl (AISI 303)	-
6 Feder	Rostfreier Stahl	-
7 Crimphülse	Kupfer (UNS C 18700)	Cu 0.5µm + Ni 3µm

### Einbaukupplung gerade

Bestandteil	Material (Norm)	Behandlung
1 Steckkörper	Messing (UNS C 38500)	Cu 0.5µm + Ni 3µm
2 Führungseinrichtung	Keramik (Zirkonium)	-
3 Rundmutter	Messing (UNS C 38500)	Cu 0.5µm + Ni 3µm

## Characteristics / Eigenschaften

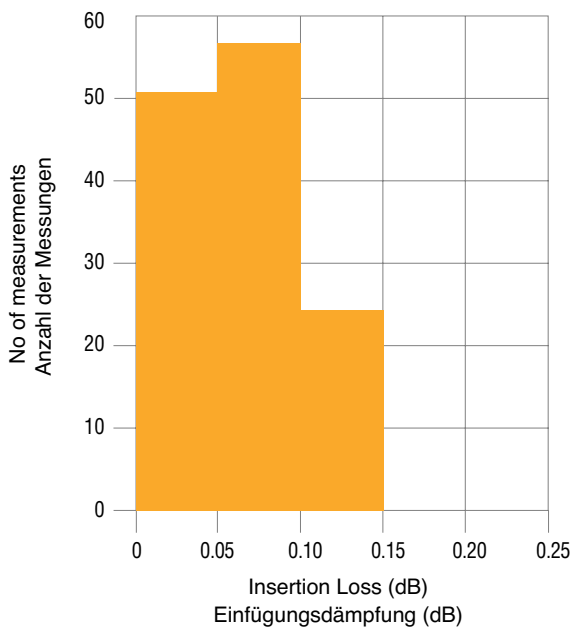
### Optical performance

Characteristics	Value	Standard
Multimode insertion loss, fiber 62.5/125, (mean)	0.13 dB	IEC 61300-3-34
Singlemode insertion loss (mean)	0.07 dB	IEC 61300-3-34
Return loss (PC Polishing) hand	> 25 dB	IEC 61300-3-06
Return loss (UPC Polishing) machine	> 45 dB	IEC 61300-3-06

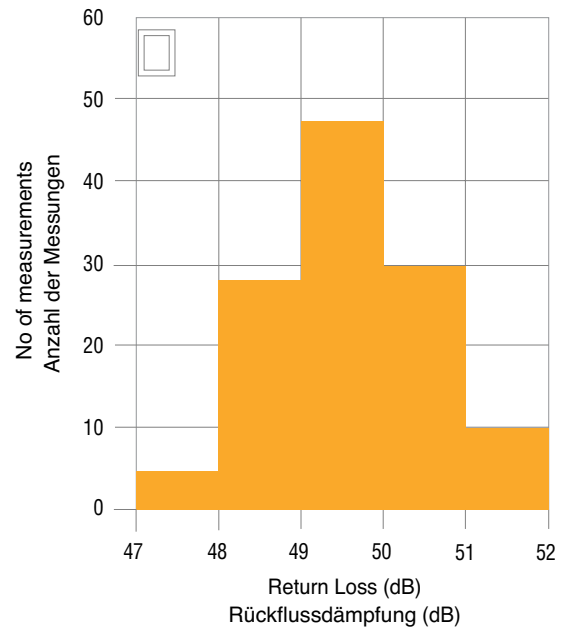
### Optische Daten

Eigenschaften	Wert	Norm
Multimode Einfügedämpfung, Faser 62.5/125, (Durchschnittswert)	0.13 dB	IEC 61300-3-34
Monomode Einfügedämpfung (Durchschnittswert)	0.07 dB	IEC 61300-3-34
Rückflussdämpfung (PC Polieren) Hand	> 25 dB	IEC 61300-3-06
Rückflussdämpfung (UPC Polieren) maschinell	> 45 dB	IEC 61300-3-06

### Singlemode (random mate) insertion loss Monomode Einfügedämpfung (Stichproben)



### Singlemode (random mate) return loss Monomode Rückflussdämpfung (Stichproben)



### Mechanical and environmental Characteristics

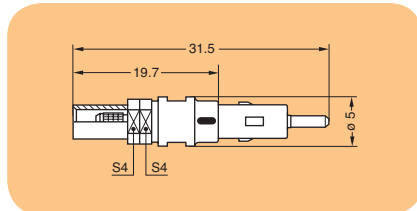
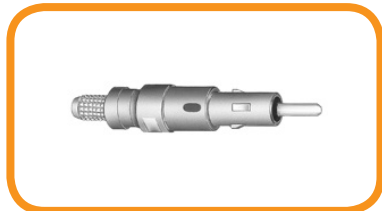
Characteristics	Value	Standard
Mating durability	500 cycles	IEC 61300-2-02
Cable retention	100 (N)	IEC 61300-2-04
Change of temperature (12 cycles)	-40°C to +85°C	IEC 61300-2-22
Low temperature	-40°C (96 hours)	IEC 61300-2-17
High temperature	+85°C (96 hours)	IEC 61300-2-18
Damp heat (steady state)	+40°C at 93% RH	IEC 61300-2-19

### Mechanische und umweltliche Eigenschaften

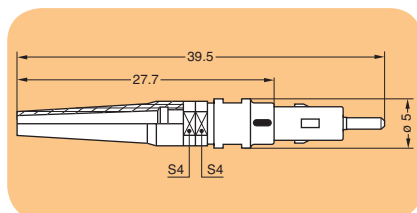
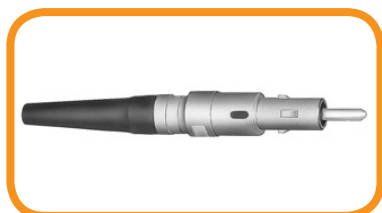
Eigenschaften	Wert	Norm
Dauerhaftigkeit	500 Zyklen	IEC 61300-2-02
Kabelsicherung	100 (N)	IEC 61300-2-04
Temperaturabweichung (12 Zyklen)	-40°C to +85°C	IEC 61300-2-22
Schwache Temperatur	-40°C (96 Stunden)	IEC 61300-2-17
Hohe Temperatur	+85°C (96 Stunden)	IEC 61300-2-18
Feuchte Wärme (Stabiler Zustand)	+40°C bei 93% RH	IEC 61300-2-19

## Model / Modell

### Straight plug for crimping (2-3 mm simplex cable) Gerader Stecker zum Crimpen (2-3 mm Simplex Kabel)

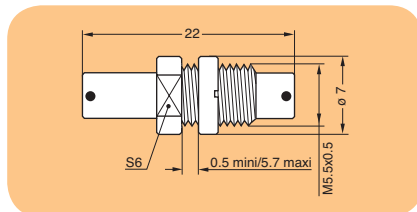
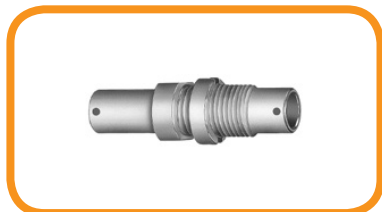


### Straight plug with bend relief (900 µm buffered fibre) Gerader Stecker mit Knickschutztüle

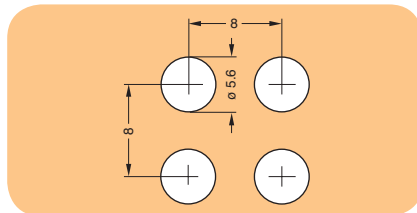


These plugs are delivered with a blue bend relief for singlemode and black for multimode  
Diese Stecker sind mit blauen Knickschutztülen für Monomode und schwarzen für Multimode  
● Bend relief material: Silicon / ● Knickschutztüle Material: Silikon

### Straight fixed coupler Einbaukupplung gerade

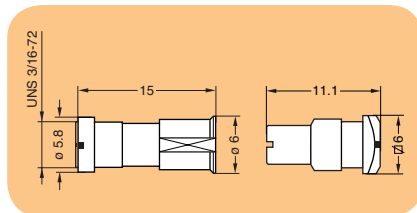
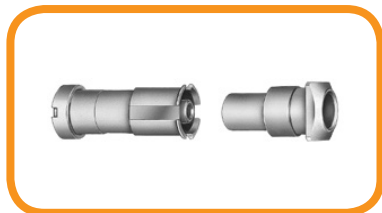


Coupler Panel Cut-out  
Frontplattenbohrungen



Mounting nut torque: 1 Nm  
Anzugsmoment für Mutter: 1 Nm

### DIN 41612 adaptors DIN 41612 Einbauadapters

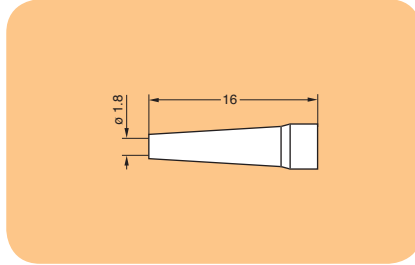


Part Number Bestellnummer	Fibre size and type Faserdurchmesser und Typ		Ferrule hole ø Hülisenbohrung ø
FGG.01.125.NAEE30	9/125	singlemode	125
FGG.01.126.NAEE30	50/125	multimode	126
FGG.01.126.NAEE30	62.5/125	multimode	126
FGG.01.127.NAEE30	50/125	multimode	127
FGG.01.127.NAEE30	62.5/125	multimode	127
FGG.01.125.NAE30A	9/125	singlemode	125
FGG.01.126.NAE30N	50/125	multimode	126
FGG.01.126.NAE30N	62.5/125	multimode	126
FGG.01.127.NAE30N	50/125	multimode	127
FGG.01.127.NAE30N	62.5/125	multimode	127
RGG.01.F99.LNE	-	-	-
ARG.01.F99.LNE	-	-	-

Note: all dimensions are in mm  
Bemerkung: alle Dimensionen sind in mm

## Accessories / Zubehör

**Bend relief**  
**Knickschutztülle**



Part Number  
Bestellnummer

Description  
Bezeichnung

GMA.01.018.RN

Black  
Schwartz

GMA.01.018.RA

Blue  
Blau

## Tooling / Werkzeuge

**Termination workstation**  
**Werkzeugkoffer**



Part Number  
Bestellnummer

Description  
Bezeichnung

DRV.91.01F.PN

Termination workstation  
Werkzeugkoffer

**Polishing tool**  
**Polierwerkzeug**



**Microscope adapter**  
**Mikroskopadapter**



DCS.91.D01.LC <sup>1)</sup>

Polishing tool  
Polierwerkzeug

DCS.91.G12.5C <sup>1)</sup>

Microscope adapter  
Mikroskopadapter

<sup>1)</sup> Included in the termination workstation  
<sup>1)</sup> Im Werkzeugkoffer einbegriffen

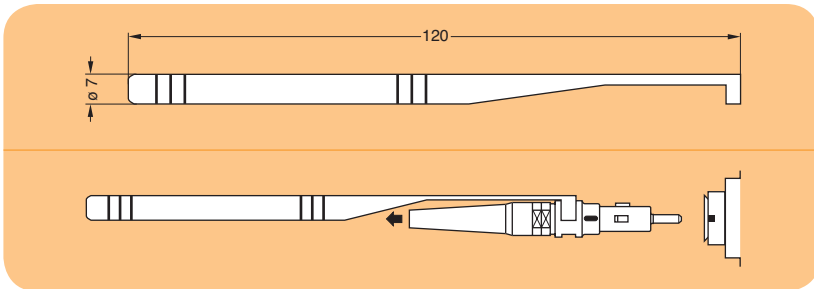


## Tooling / Werkzeuge

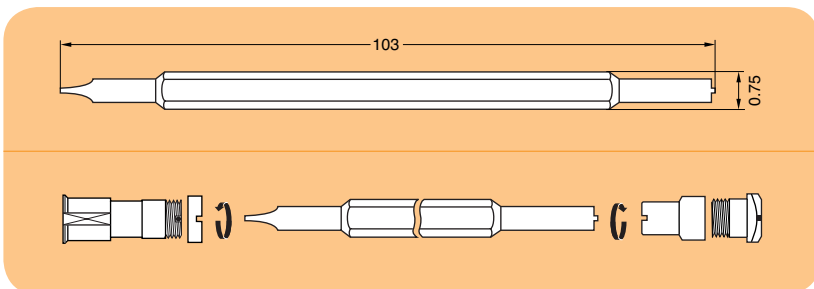
### Crimping tool Crimpzange



### Insertion/extraction tool Einführung/Ausführungswerkzeug



### Assembly tool for DIN 41612 adaptors Montagewerkzeug für DIN 41612



Part Number  
Bestellnummer

Description  
Bezeichnung

DPE.99.524.337K <sup>1)</sup>

Crimping tool  
Crimpzange

DCR.91.744.AN <sup>1)</sup>

Insertion/extraction tool  
Einführung/  
Ausführungswerkzeug

DCS.91.103.AN <sup>1)</sup>

Assembly tool for DIN 41612  
Montagewerkzeug  
für DIN 41612

<sup>1)</sup> Included in the termination workstation

<sup>1)</sup> Im Werkzeugkoffer einbegriffen

## Tooling / Werkzeuge

### Epoxy curing heater Ofen für Epoxy



### Fibre inspection microscope Faser Inspektionsmikroskop



## Cable Assembly / Kabelmontage

### Assembly instructions Montage Instructions

Part Number  
Bestellnummer

Description  
Bezeichnung

WST.FR.220.VA 2)

Epoxy curing heater 220 V  
Ofen für Epoxy 220 V

WST.FR.110.VA 2)

Epoxy curing heater 110 V  
Ofen für Epoxy 110 V

WST.FB.G10.4N 2)

Fibre inspection microscope  
Faser Inspektionsmikroskop

DOC.FO.COL.0100

2) Not included in the termination workstation

2) Nicht im Werkzeugkoffer einbegriffen

## Product safety notice

**PLEASE READ AND FOLLOW ALL INSTRUCTIONS CAREFULLY AND CONSULT ALL RELEVANT NATIONAL AND INTERNATIONAL SAFETY REGULATIONS FOR YOUR APPLICATION. IMPROPER HANDLING, CABLE ASSEMBLY, OR WRONG USE OF CONNECTORS CAN RESULT IN HAZARDOUS SITUATIONS.**

### 1. SHOCK AND FIRE HAZARD

Incorrect wiring, the use of damaged components, presence of foreign objects (such as metal debris), and / or residue (such as cleaning fluids), can result in short circuits, overheating, and / or risk of electric shock. Mated components should never be disconnected while live as this may result in an exposed electric arc and local overheating, resulting in possible damage to components.

### 2. HANDLING

Connectors and their components should be visually inspected for damage prior to installation and assembly. Suspect components should be rejected or returned to the factory for verification. Connector assembly and installation should only be carried out by properly trained personnel. Proper tools must be used during installation and / or assembly in order to obtain safe and reliable performance.





### 3. USE

Connectors with exposed contacts should never be live (or on the current supply side of a circuit). Under general conditions voltages above 30 VAC and 42 VDC are considered hazardous and proper measures should be taken to eliminate all risk of transmission of such voltages to any exposed metal part of the connector.

### 4. TEST AND OPERATING VOLTAGES

The maximum admissible operating voltage depends upon the national or international standards in force for the application in question. Air and creepage distances impact the operating voltage; reference values are indicated in the catalog however these may be influenced by PC board design and / or wiring harnesses. The test voltage indicated in the catalog is 75% of the mean breakdown voltage; the test is applied at 500 V/s and the test duration is 1 minute.

### 5. CE MARKING

CE marking   means that the appliance or equipment bearing it complies with the protection requirements of one or several European safety directives. CE marking   applies to complete products or equipment, **but not to electromechanical components, such as connectors.**

### 6. PRODUCT IMPROVEMENTS

The LEMO Group reserves the right to modify and improve to our products or specifications without providing prior notification.

### 7. **WARNING (Prop 65 State of California)**

Proposition 65 requires businesses to provide warnings to Californians about significant exposures to chemicals that cause cancer, birth defects or other reproductive harm. LEMO products are exempt from proposition 65 warnings because they are manufactured, marketed, and sold solely for commercial and industrial use. For further information, please visit <https://www.lemo.com/quality/LEMO-Prop-65-compliance-declaration.pdf>.

## Disclaimers

LEMO works constantly to improve the quality of its products; the information and illustrations figuring in this document may therefore vary and are not binding. In any case, LEMO makes no specific warranty of merchantability, fitness for a particular purpose, third party components as such or included in assembly, non-infringement, title, accuracy, completeness, or security. The user is fully responsible for his products and applications using LEMO component.

In no event shall LEMO, its affiliates, officers, agents or employees be liable for any incidental, indirect, special or consequential damages in connection with the products or services provided by LEMO, including (without limitation) loss of profits or revenues, interruption of business, loss of use of the products or any associated equipment, materials, components or products, damages to associated equipment or in combination with other components, materials.

Reproduction of significant portions of LEMO information in LEMO data books or data sheets is permissible only if reproduction is without alteration and is accompanied by all associated warranties, conditions, limitations, and notices. LEMO is not responsible or liable for such altered documentation. Information of third parties may be subject to additional restrictions.

Distributed by:  
Verteilt durch:



LEMO SA  
Ch. des Champs-Courbes 28  
CH-1024 Ecublens (SWITZERLAND)  
Tel. (++ 41 21) 695 16 00  
Fax (++ 41 21) 695 16 01  
<http://www.lemo.com>