

EX GHL ALAT

Connection fitting



Characteristics



No heating necessary for the installation
Fast assembly at site
Pre-assembled compound
Manifold application area due to high heating capacity for all popular MI-cable
Substitutes complex soldering and pre-assembly of MI-cables
Screw-/ clamp fastening with M24 nut

The connection fittings of the series GHL are used for the connection of mineral isolated heating cables with the power supply in potentially explosive areas. Compared to other variants of the connection fittings of the type GH this is suitable for much higher maximum length-specific output power. Furthermore the GHL provides a mounting aid in the form of a screwable termination bolt M24.

The supply line consists of a standard 1,2 m long, three wire connection cable with 1,5 mm² diameter, which is available with an isolation of silicone as well as PTFE. On request aberrating connection lengths, as well as a larger cable diameter of 2,5 mm² are available. To ensure a durable and moisture-proof encapsulation, the armature is filled with a special two component polymer sealant, which must be ordered separately. The electrical connection is guaranteed by a specially developed clamp placed in a nickel-plated brass-sleeve (alternatively corrosion inert stainless steel). Both measures provide a highly reliable electrical connection. For the attachment to a mounting iron or similar, the GHL is equipped with a M24 thread and a M24 nut. If the use of a separate PE-connection is necessary, this may be realized by using an appropriate mounting iron. The connection armatures are supplied partially made up. The connection cable is firmly connected to the terminal insert and shed in the armature. The remaining necessary installation steps include accordingly the connection of the heating conductor loop and their encapsulation according to the installation instructions.

The connection fitting is suitable for all mineral isolated resistance heat conductors with coaxial structure, which meet the requirements of the EN 60079-7 or the EN 60079-30-1 and comply with this manual.

GENERAL TECHNICAL DATA

Line diameter of the heat conductor	3,2 mm to 5,8 mm
Core diameter	Min. 0,37 mm
Max. power dissipation per meter heat conductor Cast resin armature (GHL)	80 W/m (at +40°C ambient temperature)
Supply voltage	230 V direct or alternating voltage
Max. admissible rated current	16 A oder 32 A
Connection cable	1,5 mm ² (16 A) or 2,5 mm ² (32 A) PTFE or Silicone
Protection degree	IP 65 / DIN EN 60529
Dimensions GHL	100 x 32 mm
Anchor point	26 mm
Temperature cable connector GH	max. 180°C (see point 2.0 BA GHL ALAT)
EC-type examination certificate	ZELM 03 ATEX 0169 U
Type of ignition protection (Gas)	Ex em II
Type of ignition protection (Dust)	Ex mbD 21
Identification	<div style="display: flex; align-items: center; gap: 20px;"> <div style="text-align: center;">  0344 </div> <div style="text-align: center;">  II 2G Ex em II II 2D Ex mbD 21 </div> </div>

TEMPERATURES AT THE HEATING CONDUCTOR

T3 (Gas), bzw. 180°C (Dust)	
Temperature	Capacity
-40 °C .. +40 °C	80 W/m
-40 °C .. +60 °C	65 W/m
-40 °C .. +80 °C	50 W/m

T4 (Gas), bzw. 130°C (Dust)	
Temperature	Capacity
-40 °C .. +40 °C	45 W/m
-40 °C .. +60 °C	30 W/m
-40 °C .. +80 °C	20 W/m

Safety relevant is the max. surface temperature of the connection fitting of 180°C. Considering the mounting instructions according to point 7.0. and adhering to the maximum ambient temperatures (see above table) the compliance with the safety relevant temperature is ensured. See the operating manual Ex GHL ALAT for the mounting instructions. Should it not be possible to comply with the installation guidelines, the surface temperature of the connection fitting must be checked.

TYPE CODE

EX GHL ALAT



1	-	Standard connection 1,5 mm ²
	32A	Connection cable 2,5 mm ²
2	-	Standard design
	S	With protective hose stainless steel A2
3	P	Connection cable PTFE
	S	Connection cable Silicone
4	-	Standard
	VA	Design „stainless steel“
5	-	Standard 1,2 m
	...	Length indicated in m (available lengths: 0,5 - 5 m)



Please note! The compound must be ordered separately. See datasheet Compound for ordering information.

PRODUCTION NUMBER

xxxx / 03.03

		Year	
		Month	
		Serial number	

MOUNTING INSTRUCTIONS FOR MINERAL ISOLATED HEATING CABLE GHL

Shorten both ends of the heating cable by 200 mm kürzen and clean by use of emery cloth at a length of 50 mm, strip 16 mm Remove burr formation by use of a scribing iron. If you can not arrange the heat conductor loops with the opening upwards until cure time, you should proceed as follows:

Step 1: First push the silicone seal inserts in the milled screw, as shown in figure 2.. The main length of the insert must face outwards. Then push the mounted milled screw over the heat conductor.

Step 2: Then clamp both ends of the heating cable in the strain relief that 2mm of the jacket are still visible. The strain relief realizes the PE-connection of the MI-cable with the connection lead and the cabinet at the same time.

Step 3: Move the threaded sleeve in the direction of the hose line over the heating cable.

Step 4: Connect heating cable and strain relief in the clamp body. (Cable ends must be visible through the tell-tale hole.)

Step 5: Screw the sleeve on the feedthrough screw.

Step 6: Mix cast resin 2855 -T125L Observe the processing instructions of the cast resin. Processing temperature and notes on maximum humidity must be considered. Please fill in the compound slantwise, to avoid including air during the encapsulating.

Step 7: Before screwing together the cable connector with the milled screw, the compound should rest in a vertical position, to let escape possible air entrapments.

The indications of the type plate must be completed.

a The nominal voltage* only refers to the connection and is calculated.

b Rated current (Operating current)

c Type of heating cable**

* It must be considered that, depending on the length of the heating cable, measurable inductivities and capacities can result. Also the type of installation can lead to influences. The consequence is that the effective output is lower than the nominal power. Safety related the the nominal voltage applies, whereas concerning the construction technique the effective voltage must be used for the power identification.

** From the type designation the length specific resistance and the real length must emerge.

CAST RESIN 2855 -T125L NECESSARY ACCESSORIES FOR (GHL)

The cast resin is applicable for 80W/m and a maximum surface temperature of 180°C. After having ordered the cast resin must be used within 6 months. the information about processing in the operating manual must be observed. The certification is only valid at intended use of the stated resins and appropriate assembly. The resin 2855-T125L is subject to shelf life and must accordingly be ordered with a separate number. However, it is mandatory to use, otherwise the certificate level extinguishes. Please take further information from the resin data sheet. Download on www.erich-ott.de.

SCOPE OF DELIVERY

Connection fitting:

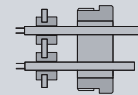
1.	Clamp body with preassembled connection cable
2.	Sleeve
3.	Strain relief with tooth lock washer
4.	Screw and loss protection
5.	O- ring and nut M24 x 1,5
6.	Type plate



Picture 1
Strain relief valley



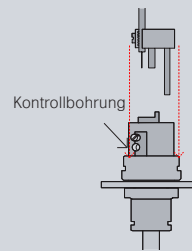
Picture 2 for Step 1:
Milled screw and cover cap



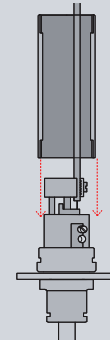
Picture 3 for Step 1:
cover cap with silicone grommet



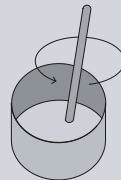
Picture 4 for Step 2 and 3:
Strain relief and sleeve



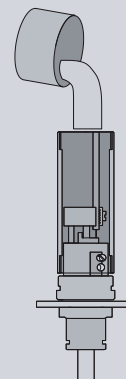
Picture 5 for Step 4:
Screw at heat conductor



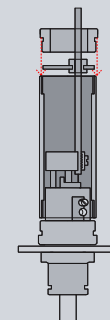
Picture 6 for Step 5:
Clamp body



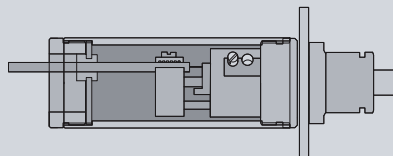
Picture 7 for Step 6:
Mixing the cast resin



Picture 8 for Step 7:
Filling into the sleeve





Picture 9 for Step 7:
Connector with cabinet



Picture 10: Ready mounted device

TYPE PLATE

 ERICH OTT Elektronische Geräte 65189 WIESBADEN GHL ALAT		CE 0344 	1
4	Nennspannung	230 V Ex em II bzw. Ex mbD21	2
5	Heizleiter	ZELM 03 ATEX 0169 U	3
6	Betriebsspannung	V Fertigungs Nr.	8
7	Nennstrom	A	9

4-	Nominal voltage	1-	Ex- Identification
5-	Heat conductor	2-	Type designation
6-	Operating voltage	3-	Protection degree
7-	Rated current	8-	Inspection authority/EC-type examination certificate
		9-	Serial number

Please take further data from the operating manual.
Download on www.erich-ott.de