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## 防火电缆接头

*Fire protection cable glands according to EN 45545*



*Cable glands for the railway technologies according to EN 45545*



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图 1 – UNI 多孔防火电缆接头  
Fig. 1 – UNI Multiple fire protection cable gland

PFLITSCH 电缆接头满足防火标准 EN 45545

。自 2013 年新的防火标准 EN 45545-3 颁布以来，“轨道车辆防火”这个题目在欧洲范围内引起了关注。因为列车一旦起火，会瞬间夺去人的生命。

因此，轨道技术对于防火方面具有很高要求。特别是在客运方面关注度最高。在轨道车辆内，会有不同地点起火可能。电子设备、暖气、柴油或电气发动机的机房，软垫座椅、带可燃被套的床铺或者有乘客偷偷吸烟的厕所，都可能起火。

重要的是，在发生火灾之列车仍有一段时间靠地运行，以便在消防开始以前，行驶出隧道并且保证乘客和人员可以安全撤离。只允许安装不助燃的部件。

**PFLITSCH 防火接头成功通过检测**

在电缆接头为金属制的情况下，焦点特别落在了塑料部件上。

多年来，PFLITSCH 电缆接头已通过了防火性能方面的标准测试和 EN 60695-2-11 要求的灼热丝试验，获得 VDE、CSA、和 UL 国际认证。

PFLITSCH 是首家按照新的 EN 45545-3 标准设计并以优异结果成功通过测试的制造商，这些电缆接头包括：UNI Dicht® 和 blueglobe® 以及分体式系统 UNI FLANSCH 和 UNI Split Gland®。因此，这些电缆接头被应用于国际上最新研发的轨道技术产品上。

**PFLITSCH cable glands fulfil fire protection norm EN 45545**

The theme "fire protection in track vehicles" has been in focus since the 2013 Europe-wide fire protection norm EN 45545-3. For when a fire breaks out on trains, human life rapidly comes into danger.

Railway engineering presents high requirements in the realm of fire protection. The highest precautions are taken in passenger traffic. Within a rail vehicle fires can break out at various points: electrical equipment, heating, machine rooms with diesel or electric motors, upholstered seats, sleeping compartments or the toilet cabins in which a customer smokes in secret are to be designated here.

Decisively, the train can be safely driven for a certain time following the outbreak of fire, for example, in order to exit from a tunnel and thus ensure the safe evacuation of passengers and staff, before fire fighting begins. The general principle is: Only non-combustible components may be installed.

**PFLITSCH fire protection cable glands successfully tested**

With regards to cable glands made of metal, the special focus is on all components made of plastics.

The internationally certificated PFLITSCH cable glands by VDE, CSA and UL have already for several years been subject to tests in connection with fire behaviour, and tested according to the so-called filament test according to EN 60695-2-11.

PFLITSCH has as the first producer has designed and successfully had tested its cable glands UNI Dicht® and blueglobe® and the splittable systems UNI Flange® and UNI Split Gland® – with excellent results – according to the new EN 45545-3. Therefore these cable entries are found in the latest developments in international railway engineering.



图 1 – PFLITSCH 防火电缆接头用于列车中使用  
Fig. 1 – PFLITSCH fire protection cable glands for using in railway vehicles

图 2 – blueglobe® 防火电缆接头  
Fig. 2 – blueglobe® fire protection cable gland

图 3 – UNI Dicht® 一 防火电缆接头  
Fig. 3 – UNI Dicht® fire protection cable gland

## 和 PFLITSCH 防火电缆接头安全上路

*Safely on the way with PFLITSCH fire protection cable glands*



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Leuchtturm  
Automation

9



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图 1 - UNI Mehrfach 多重防火电缆接头  
Fig. 1 - UNI Multiple fire protection cable gland

图 2 - blueglobe TRI® 一 防火电缆接头  
Fig. 2 - blueglobe TRI® fire protection cable gland

测试结果记录下了 PFLITSCH 的高安全性授权实验室 Currenta 根据 EN 45545-3, 对符合新的防火标准 EN 45545-2 的相关材料和部件进行了检测。结果显示: PFLITSCH 用于内塞的新材料 TPE T80s 满足欧盟最高的 HL3 要求, 可以不受限制的用于列车。无论是在露天路段, 还是在隧道或火车站中。相应地证明其氧指数 >32%、烟密度  $D_s$  最大 300 以及毒性 CIT 最大 1.5。硅胶制内塞也成功通过了极端使用温度  $-55\text{ }^{\circ}\text{C}$  至  $+180\text{ }^{\circ}\text{C}$  的测试。

在耐火性试验“物理障碍”方面, 根据 EN 45545-3 对全部 PFLITSCH 电缆接头进行了测试。发生火灾时, 火焰在 15 分钟以上的时间里 (E15) 不得向外蔓延。在测试中, 用于单根和多根电缆的 PFLITSCH 内塞达到了 E30 高耐火等级, 超过 30 分钟保持密封。

M12 至 M63 规格的 PFLITSCH 电缆接头 UNI Dicht® 和 blueglobe® 达到了 IP 68 的高防护等级。特别针对电磁兼容解决方案还有 blueglobe TRI®: 它的内置式 TRI 弹簧与电缆屏蔽层  $360^{\circ}$  可靠接触, 直至千兆赫兹范围其衰减仍超出平均水平。

#### 独一无二: 用于预制电缆的分体式系统

分体式电缆接头系统 UNI FLANSCH、UNI FLANSCH HD 和 UNI Spilt Gland® 与经证的防火密封嵌件结合使用后满足 EN 45545-3 规定的 E30 耐火等级。这是预制电缆首次可以不受限制地用于轨道技术方面。

M25 规格的 UNI Split Gland® 采用高品质聚碳酸酯制造, 达到了防护等级 IP 67。在 UNI FLANSCH 的两个版本中内置有可以可靠穿过并密封多根电缆的单体。分体式电缆接头系统可穿过直径 2.9 mm 至 20 mm 的电缆, 并可配备不同的单一和多重防火内塞。

#### Test results document the high level of PFLITSCH safety.

The accredited test laboratory Currenta tested the corresponding material and components under the new fire protection norm EN 45545-2 and EN 45545-3. The result can be seen: The new PFLITSCH material TPE T80s fulfils the highest requirements under HL3 of the new EU norm for sealing inserts for unrestricted use in trains – whether on open stretches, in tunnels or in stations.

Correspondingly the verification resulted in oxygen-index > 32 %; smoke density  $D_s$  max. 300 and toxicity CIT max. 1.5. Likewise sealing inserts made of Sililcon S55 were successfully tested for extreme insertion temperatures from  $-55\text{ }^{\circ}\text{C}$  bis  $+180\text{ }^{\circ}\text{C}$ .

At the fire protection test "Enclosed space", complete PFLITSCH cable glands were tested according to EN 45545-3. In the case of fire flames may not reach the outside within 15 minutes (E15). The PFLITSCH sealing inserts used for single and multiple cables passed the test in the high fire protection class E30, and remained tight for more than 30 minutes.

The PFLITSCH cable glands UNI Dicht® and blueglobe® are available in the sizes M12 to M63 at the high protection level IP 68. blueglobe TRI® is particularly for EMC solutions; its inboard TRI-spring makes contact securely with the cable shield  $360^{\circ}$  all round and brings an above average dampening value into the GHz range.

#### Unique: splittable systems for preassembled cables

Likewise, the shared PFLITSCH systems UNI Flange® in plastic and metal as well as UNI Split Gland® come out of the fire prevention tests with the proven fire protection sealing inserts up to E30 according to EN 45545-3. Thereby for the first time preassembled cables can be fitted unrestrictedly in railway engineering.

The UNI Split Gland® in size M25 is manufactured from high-quality polycarbonate and achieves the type of protection IP 67. In both UNI Flange® types every three double nipples are integrated, which securely guides and seals a large number of cables. The splittable cable glands systems conduct cable profiles of 2.9 mm to 20 mm and can be fitted with various single or multiple fire protection sealing inserts.



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**blueglobe® — 防火电缆接头**  
blueglobe® fire protection cable gland



图 1  
Fig. 1



图 2  
Fig. 2

黄铜镀镍  
公制螺纹 EN 60423  
防护等级 IP 68 至 15 bar  
技术数据基础: EN 62444

Brass nickel plated  
Metric thread EN 60423  
Type of protection IP 68 up to 15 bar  
Base for technical data: EN 62444

**i** 下列产品仅是完整目录的节选。根据要求可提供其他型号  
The products listed here are only a selection of our overall programme. Further versions on request

螺纹接头外壳材质 Material gland body	规格/颜色 Version/colour	塞子材质 Material sealing insert	颜色 Colour	温度范围最小值/最大值 Temperature range min./max.
黄铜 Brass	镀镍 nickel plated	T80s	纯黑色 black	-40 °C / +130 °C

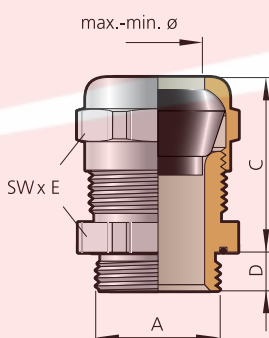


图 3 – 带内层  
Fig. 3 – with inlet

连接螺纹/长度 Connection thread/length	料号 Art. no.	缘径范围 Sealing range	不包括内层的密封范围 Sealing range without inlet	包括内层的密封范围 Sealing range with inlet	安装高度 Mounting height	扳手开口宽度 Spanner width	
A	D mm	最大/最小 ø mm	最大/最小 ø mm	最大/最小 ø mm	C mm	SW x E mm	
M12x1.5	5.0	bgc 9212Bms	8,0– 2,0	8.0– 5.0	5.0– 2.0	20.8	17x18.9 50
M16x1.5	6.0	bgc 9216Bms	11,0– 4,0	11.0– 7.0	7.0– 4.0	25.0	20x22.2 50
M20x1.5	6.5	bgc 9220Bms	14,0– 5,0	14.0– 9.0	9.0– 5.0	29.5	24x26.5 50
M25x1.5	7.5	bgc 9225Bms	20,0– 11,0	20.0– 16.0	16.0– 11.0	29.5	30x33 50
M32x1.5	8.0	bgc 9232Bms	25,0– 15,0	25.0– 20.0	20.0– 15.0	32.0	36x39.5 25
M40x1.5	8.0	bgc 9240Bms	32,0– 20,0	32.0– 26.0	26.0– 20.0	35.0	45x48 10
M50x1.5	10.0	bgc 9250Bms	42,0– 31,0	42.0– 35.0	35.0– 31.0	38.0	57x61 5
M63x1.5	10.0	bgc 9263Bms	54,0– 41,0	54.0– 46.0	46.0– 41.0	40.0	68x72 5

连接螺纹/长度 Connection thread/length	料号 Art. no.	缘径范围 Sealing range	不包括内层的密封范围 Sealing range without inlet	包括内层的密封范围 Sealing range with inlet	安装高度 Mounting height	扳手开口宽度 Spanner width	
A	D mm	最大/最小 ø mm	最大/最小 ø mm	最大/最小 ø mm	C mm	SW x E mm	
M16x1.5	15.0	bgc 9816Bms	11,0– 4,0	11.0– 7.0	7.0– 4.0	25.0	20x22.2 50
M20x1.5	15.0	bgc 9820Bms	14,0– 5,0	14.0– 9.0	9.0– 5.0	29.0	24x26.5 50
M25x1.5	15.0	bgc 9825Bms	20,0– 11,0	20.0– 16.0	16.0– 11.0	29.5	30x33 50
M32x1.5	15.0	bgc 9832Bms	25,0– 15,0	25.0– 20.0	20.0– 15.0	32.0	36x39.5 25

**i** 根据要求可提供不锈钢材质  
Stainless steel on request

**i** 根据要求可提供硅树脂 S55 材质 (温度范围 -55 °C 至 +180 °C) 的内塞  
Sealing insert made of silicone S55 (Temperature range -55 °C up to +180 °C) on request

**i** 拧紧力矩参见技术附件页 253  
Tightening torques see technical appendix page 253

UNI Dicht® — 防火电缆接头  
UNI Dicht® fire protection cable gland

CE RoHS



图 1  
Fig. 1

图 2  
Fig. 2

黄铜镀镍  
公制螺纹 EN 60423  
防护等级 IP 68 至 10 bar  
技术数据基础: EN 62444  
  
Brass nickel plated  
Metric connection thread EN 60423  
Type of protection IP 68 up to 10 bar  
Base for technical data: EN 62444

下列产品仅是完整目录的节选。根据要求可提供其他型号  
The products listed here are only a selection of our overall programme. Further versions on request

螺纹接头外壳材质 Material gland body	规格/颜色 Version/colour	订购编号 Art. no. supplement	塞子材质 Material sealing insert	颜色 Colour	订购编号 Art. no. supplement	温度范围最小值/最大值 Temperature range min./max.
黄铜 Brass	镀镍 nickel plated	d	S55	纯黑色 black	Bi	-55 °C / +180 °C
黄铜 Brass	镀镍 nickel plated	d	T80s	纯黑色 black	B	-40 °C / +130 °C
VA 1.4305 AISI 303	乳白色 blank	st	S55	纯黑色 black	Bi	-55 °C / +180 °C
VA 1.4305 AISI 303	乳白色 blank	st	T80s	纯黑色 black	B	-40 °C / +130 °C

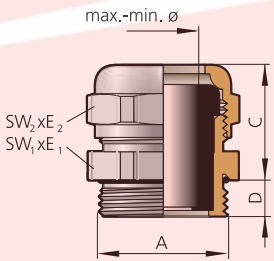


图 3  
Fig. 3

连接螺纹/长度 Connection thread/length		料号 Art. no.	密封范围 Sealing range		
延伸产品说明详情指示 Indicate product details					
A	D mm	圆/Brass = d Bi = S55 VA 1.4305/AISI 303 = st B = T80s	最大/最小 mm		
M12x1.5	5.0	921249C	7	6.5 – 4.0	50
		921250C	9	9.5 – 6.5	50
		921650C	7	6.5 – 4.0	50
M16x1.5	6.0	921650C	8	8.0 – 5.0	50
		921650C	9	9.5 – 6.5	50
		922052C	7	6.5 – 4.0	50
M20x1.5	6.5	922052C	8	8.0 – 5.0	50
		922052C	9	9.5 – 6.5	50
		922052C	11	10.5 – 7.0	50
		922052C	13	13.0 – 9.0	50
		922053C	16	15.5 – 11.5	50
M25x1.5	7.5	922553C	7	6.5 – 4.0	50
		922553C	8	8.0 – 5.0	50
		922553C	9	9.5 – 6.5	50
		922553C	11	10.5 – 7.0	50
		922553C	13	13.0 – 9.0	50
		922553C	16	15.5 – 11.5	50
		922554C	18	18.0 – 14.0	25
M32x1.5	8.0	923254C	20	20.5 – 17.0	25
		923254C	11	10.5 – 7.0	25
		923254C	13	13.0 – 9.0	25
		923254C	16	15.5 – 11.5	25
		923254C	18	18.0 – 14.0	25
M40x1.5	8.0	924055C	20	20.5 – 17.0	25
		924055C	16	15.5 – 11.5	10
		924055C	18	18.0 – 14.0	10
		924055C	20	20.5 – 17.0	10
		924055C	25	25.0 – 20.0	10
M50x1.5	10.0	924055C	28	28.0 – 24.0	10
		925056C	32	32.0 – 27.0	5
		925056C	34	34.0 – 29.0	5
		925056C	36	36.0 – 32.0	5
M63x1.5	10.0	925057C	40	40.0 – 36.0	5
		926358C	44	44.0 – 39.0	5
M63x1.5	16.0	926375C	45	45.0 – 40.0	1

螺纹种类: 标准尺寸 D = 料号 922052...  
 15 mm 长度 = 料号 982052...  
 Thread variants: Standard length D = Art. no. 922052...  
 15 mm length = Art. no. 982052...

UNI 多孔防火电缆接头  
UNI Multiple fire protection cable gland

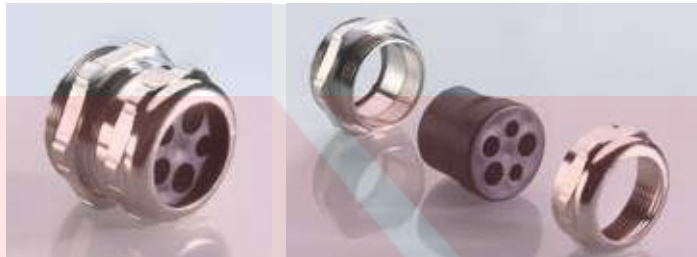


图 1  
Fig. 1

图 2  
Fig. 2

黄铜镀镍，不锈钢 1.4305  
公制螺纹 EN 60423  
防护等级 IP 65  
防护等级 IP 68 至 10 bar，当电缆 Ø = 孔 Ø 时  
技术数据基础：EN 62444

Brass nickel plated, AISI 303  
Metric thread EN 60423  
Type of protection IP 65  
Type of protection IP 68 up to 10 bar, reachable if cable Ø = hole Ø  
Base for technical data: EN 62444

下列产品仅是完整目录的节选。根据要求可提供其他型号  
The products listed here are only a selection of our overall programme. Further versions on request

螺纹接头外壳材质 Material gland body	规格/颜色 Version/colour	订购编号 Art. no. supplement	塞子材质 Material sealing insert	颜色 Colour	温度范围最小值/最大值 Temperature range min./max.
黄铜 Brass	镀镍 nickel plated	d	T80s	纯黑色 black	-40 °C / +130 °C
VA 1.4305 AISI 303	乳白色 blank	st	T80s	纯黑色 black	-40 °C / +130 °C

连接螺纹 Connection thread	料号 Art. no.	延伸产品说明详情指示 Indicate product details
A	Brass = d VA 1.4305/AISI 303 = st	
M16x1.5	921650C	Bm2x4 50
	921652C	Bm2x5 50
	921652C	Bm2x6 50
	921652C	Bm3x5,3 50
M20x1.5	922051C	Bm2x2,3 50
	922052C	Bm2x2,3 50
	922052C	Bm2x3 50
	922052C	Bm2x5 50
	922052C	Bm2x6 50
	922052C	Bm3x4 50
	922053C	Bm1x5/1x9 50
	922053C	Bm1x6/1x8 50
	922053C	Bm2x4 50
	922053C	Bm2x6,5 50
M25x1.5	922053C	Bm2x8 50
	922053C	Bm3x7 50
	922053C	Bm5x5 50
	922553C	Bm1x3/1x9 50
	922553C	Bm1x5 50
	922553C	Bm1x6/1x9 50
	922553C	Bm2x3,2/2x6 50
	922553C	Bm2x5 50
	922553C	Bm2x6/1x7 50
	922553C	Bm2x6/1x8 50
922553C	Bm2x6 50	
922553C	Bm3x6 50	
922553C	Bm3x6,5 50	

46200 | T101920

Leuchtturm  
Automation

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### UNI 多孔防火电缆接头

UNI Multiple fire protection cable gland

◀ 接上页  
Continued from previous page

连接螺纹 Connection thread	料号 Art. no.	延伸产品说明详情指示 Indicate product details		
A	Brass VA 1.4305/AISI 303	= d	= st	
M25x1.5	922553C	Bm3x7	50	
	922553C	Bm4x4	50	
	922553C	Bm4x5	50	
	922553C	Bm4x6	50	
	922554C	Bm1x5,4/2x6,5	25	
	922554C	Bm2x7	25	
	922554C	Bm4x6,5	25	
	922554C	Bm4x7,5	25	
	922554C	Bm6x5,5	25	
	922554C	Bm7x4	25	
M32x1.5	923254C	Bm1x7/1x8,5	25	
	923254C	Bm1x8/2x11	25	
	923254C	Bm2x9	25	
	923254C	Bm3x7	25	
	923254C	Bm3x8	25	
	923254C	Bm3x9	25	
	923254C	Bm4x5	25	
	923254C	Bm4x6	25	
	923254C	Bm4x6,5	25	
	923254C	Bm4x7	25	
	923254C	Bm4x8	25	
	923254C	Bm5x6	25	
	923254C	Bm6x5,5	25	
	923254C	Bm6x6,5	25	
	923254C	Bm8x5,5	25	
	923255C	Bm1x4,8/5x6,3	10	
	923255C	Bm1x4,8/6x6,3	10	
	923255C	Bm1x8/2x11	10	
	923255C	Bm2x8,5/1x13,5	10	
	923255C	Bm2x12	10	
	923255C	Bm4x8	10	
	923255C	Bm4x10	10	
	923255C	Bm4x11	10	
M40x1.5	924055C	Bm1x5,5/6x7	10	
	924055C	Bm1x6/1x7,5/2x8,5	10	
	924055C	Bm1x6/2x9	10	
	924055C	Bm1x7/1x9/1x11	10	
	924055C	Bm1x7/2x8,5	10	
	924055C	Bm1x7/2x8/2x10	10	
	924055C	Bm1x7/3x9	10	

连接螺纹 Connection thread	料号 Art. no.	延伸产品说明详情指示 Indicate product details		
A	Brass VA 1.4305/AISI 303	= d	= st	
M40x1.5	924055C	Bm1x10,5/1x16	10	
	924055C	Bm1x12/1x13	10	
	924055C	Bm2x8/2x11,5	10	
	924055C	Bm2x9	10	
	924055C	Bm2x10	10	
	924055C	Bm2x11	10	
	924055C	Bm2x13	10	
	924055C	Bm3x6/4x7	10	
	924055C	Bm3x7	10	
	924055C	Bm3x7/3x8	10	
	924055C	Bm3x8/1x9,5	10	
	924055C	Bm3x11	10	
	924055C	Bm3x12	10	
	924055C	Bm4x5,5	10	
	924055C	Bm4x6/3x8,5	10	
	924055C	Bm4x6,5	10	
	924055C	Bm4x7/4x8	10	
	924055C	Bm4x8/2x9	10	
	924055C	Bm4x8	10	
	924055C	Bm4x9	10	
	924055C	Bm4x10	10	
	924055C	Bm4x11	10	
	924055C	Bm5x8,5	10	
	924055C	Bm6x6	10	
	924055C	Bm6x8	10	
	924055C	Bm7x6/1x11	10	
	924055C	Bm7x7	10	
	924055C	Bm7x8	10	
	924055C	Bm8x6,5	25	
	924055C	Bm10x6	10	
	924056C	Bm1x10/3x11,5	10	
	924056C	Bm2x14	10	
	924056C	Bm2x15	10	
	924056C	Bm3x6/5x8,5	10	
	924056C	Bm8x8	10	
	924056C	Bm10x6,8	10	
M50x1.5	925056C	Bm1x13/1x19	5	
	925056C	Bm2x8/3x10	5	
	925056C	Bm2x10,2	5	
	925056C	Bm2x15	5	

46200 | T10 | 1920

**UNI 多孔防火电缆接头**

UNI Multiple fire protection cable gland

◀ 接上页  
Continued from previous page

连接螺纹 Connection thread	料号 Art. no.	延伸产品说明详情指示 Indicate product details		
A	Brass = d VA 1.4305/AISI 303 = st			
M50x1.5	925056C	Bm3x14,5	5	
	925056C	Bm4x10,2	5	
	925056C	Bm4x11/1x13	5	
	925056C	Bm5x11,5	5	
	925056C	Bm6x10	5	

连接螺纹 Connection thread	料号 Art. no.	延伸产品说明详情指示 Indicate product details		
A	Brass = d VA 1.4305/AISI 303 = st			
M50x1.5	925056C	Bm8x9	5	
	925056C	Bm11x8	5	
M63x1.5	926358C	Bm8x11	5	
	926358C	Bm14x8	5	

**i** 螺纹种类: 标准尺寸 D = 料号 922052...  
15 mm 长度 = 料号 982052...  
Thread variants: Standard length D = Art. no. 922052...  
15 mm length = Art. no. 982052...

**UNI EMV Dicht — 防火电缆接头**

UNI EMC Dicht fire protection cable gland



黄铜镀镍  
公制螺纹 EN 60423  
防护等级 IP 68 至 10 bar  
技术数据基础: EN 62444

Brass nickel plated  
Metric connection thread EN 60423  
Type of protection IP 68 up to 10 bar  
Base for technical data: EN 62444

图 1  
Fig. 1

图 2  
Fig. 2

**i** 下列产品仅是完整目录的节选。根据要求可提供其他型号  
The products listed here are only a selection of our overall programme. Further versions on request

螺纹接头外壳材质 Material gland body	规格/颜色 Version/colour	塞子材质 Material sealing insert	颜色 Colour	温度范围最小值/最大值 Temperature range min./max.
黄铜 Brass	镀镍 nickel plated	T80s	纯黑色 black	-40 °C / +130 °C

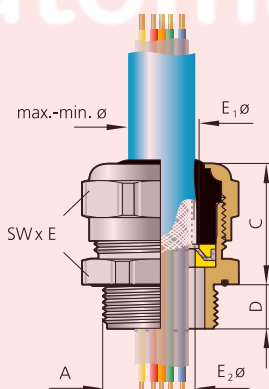


图 3  
Fig. 3

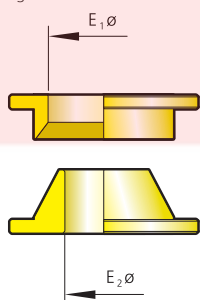


图 4  
Fig. 4

连接螺纹/长度 Connection thread/length	料号 Art. no.	线径范围 Sealing range	屏蔽层 Ø Screen-Ø	锥体 Cone	圆锥对 Pair of cones	安装高度 Mounting height	扳手开口宽度 Spanner width
A	D	最大/最小 ø mm	最大 ø E1 mm	最小 ø E2 mm	Art.-Nr.	C	SW x E mm
M16x1.5	10.0	9.0– 6.5	8.2	6.0	EEA 1	31.0	24x26.7 50
M20x1.5	10.0	9.0– 6.5	8.2	6.0	EEA 1	31.0	24x26.7 50
M25x1.5	11.0	14.0– 10.0	12.7	10.5	EEA 6	32.0	30x33.5 25
M32x1.5	13.0	23.0– 19.0	24.0	22.0	EEA 12	39.0	40x43.5 10
M40x1.5	14.0	32.0– 29.0	32.0	30.0	EEA 15	45.0	50x54 5
M50x1.5	15.0	41.0– 37.0	41.0	39.0	EEA 17	50.0	60x65 5

**i** 根据要求可提供硅树脂 S55 材质 (温度范围 -55 °C 至 +180 °C) 的内塞  
Sealing insert made of silicone S55 (Temperature range -55 °C up to +180 °C) on request

46200 | TT01930

47000 | TT03200

blueglobe TRI® — 防火电缆接头  
blueglobe TRI® fire protection cable gland

CE RoHS



图 1  
Fig. 1

图 2  
Fig. 2

黄铜镀镍  
公制螺纹 EN 60423  
防护等级 IP 68 至 15 bar, 防护等级 IP 69  
技术数据基础: EN 62444

Brass nickel plated  
Metric thread EN 60423  
Type of protection IP 68 up to 15 bar, IP 69K  
Base of technical data: EN 62444

下列产品仅是完整目录的节选。根据要求可提供其他型号  
The products listed here are only a selection of our overall programme. Further versions on request

螺纹接头外壳材质 Material gland body	规格/颜色 Version/colour	塞子材质 Material sealing insert	颜色 Colour	温度范围最小值/最大值 Temperature range min./max.
黄铜 Brass	镀镍 nickel plated	T80s	纯黑色 black	-40 °C / +130 °C

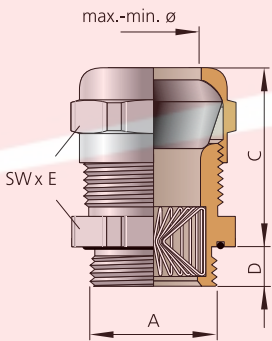


图 3  
Fig. 3

连接螺纹/长度 Connection thread/ length	料号 Art. no.	线径范围 Sealing range	不包括内层的密封范围 Sealing range without inlet	包括内层的密封范围 Sealing range with inlet	屏蔽层 Ø Shield-Ø	安装高度 Mounting height	扳手开口 宽度 Spanner width SW x E
A	D	最大/最小 Ø mm	最大/最小 Ø mm	最大/最小 Ø mm	最大/最小 Ø mm	C	mm
M12x1.5	5.0	bgc 9212Bms tri	8,0 – 5,0	8,0 – 5,0	5,0 – 3,0	21,0	17x18.9 50
M16x1.5	6.0	bgc 9216Bms tri	11,0 – 7,0	11,0 – 7,0	9,0 – 5,0	25,0	20x22.2 50
M20x1.5	6.5	bgc 9220Bms tri	14,0 – 9,0	14,0 – 9,0	12,0 – 7,0	29,0	24x26.5 50
M25x1.5	7.5	bgc 9225Bms tri	20,0 – 11,0	20,0 – 16,0	16,0 – 11,0	30,0	30x33 50
M32x1.5	8.0	bgc 9232Bms tri	25,0 – 15,0	25,0 – 20,0	20,0 – 15,0	32,0	36x39.5 25
M40x1.5	15.0	bgc 9240Bms tri	32,0 – 20,0	32,0 – 26,0	26,0 – 20,0	35,0	45x48 10
M50x1.5	15.0	bgc 9250Bms tri	42,0 – 31,0	42,0 – 35,0	35,0 – 31,0	39,0	57x61 5
M63x1.5	20.0	bgc 9263Bms tri	54,0 – 41,0	54,0 – 46,0	46,0 – 41,0	40,0	68x72 5

46900 | IT03880

各种不同类型安装说明 (图2) 与系统尺寸 (E) 请参见技术附录页 252。  
Please check for variant of installation the assembly instruction (Fig.2) and the system dimension (E) in the technical appendix on page 252.

M12 至 M20 接头发货时不带进口。  
M25 至 M50: 短进口  
M12 up to M20 are supplied without inlet, M25 up to M50: shorted inlet

根据要求可提供硅树脂 S55 材质 (温度范围 -55 °C 至 +180 °C) 的内塞  
Sealing insert made of silicone S55 (Temperature range -55 °C up to +180 °C) on request

根据要求可提供: 15 mm 螺纹和不锈钢材质  
Available on request: connection thread 15 mm and stainless steel version

blueglobe TRI® 仅整体发货。安装说明书  
参见技术附件  
blueglobe TRI® only delivered as a complete gland. Assembly instructions see technical appendix

Leuchtturm  
Automation

UNI Flange® — 带塑料通孔的整体框架

UNI Flange® – Complete frame with through holes plastic



图 1  
Fig. 1



图 2  
Fig. 2

包装单元包括:  
10 个带通孔的框架半体板  
30 个压力螺栓半体件  
20 个密封垫片  
防护等级 IP 66, 类型 4X

Packaging unit consisting of:  
10 frame plates with through holes, 30 pressure screw halves,  
20 washers  
Type of protection IP 66, Type 4X

**i** 24 极截面尺寸 (单位: mm) : 112 x 36  
Dimensions of the 24-pole cut-out (mm): 112 x 36

螺纹接头外壳材质 Material gland body	颜色 Colour	订购编号 Art. no. supplement	温度范围最小值/最大值 Temperature range min./max.
PA 66-6	灰色 grey		-20 °C / +80 °C
PA 66-6	纯黑色 black	n	-20 °C / +80 °C

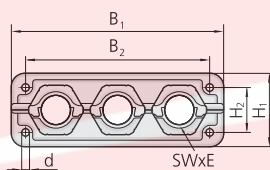


图 3  
Fig. 3

料号 Art. no.	宽度 1 Width 1	高度 1 Height 1	宽度 2 Width 2	高度 2 Height 2	直径 diameter	扳手开口宽度 Spanner width
grey =	B1	H1	B2	H2	Ø d	SW x E
black = n	mm	mm	mm	mm	mm	mm
CUFLD3 954u	149.6	51.6	130	32	5.5	35x38.6

**i** 用于安装的螺栓不在发货范围内。我们建议使用 M5 内六角圆柱头螺栓 (Inbus)。  
Screws for the installation are not included with the articles. We recommend M5 socket-head screws with a hexagonal socket (allen).

**i** UL 认证仅针对结合使用 TPE-V 材质的内塞  
UL certification only in combination with sealing inserts made of TPE-V

**i** M25 相应的带开缝内塞参见页码起自 201  
Corresponding slit sealing inserts in size M25 from page 201

UNI Flange® – 带塑料螺纹嵌件的整体框架

UNI Flange® – Complete frame with threaded inserts plastic



图 1  
Fig. 1



图 2  
Fig. 2

包装单元包括:  
10 个带螺纹嵌件的框架半体板  
30 个压力螺栓半体件  
防护等级 IP 66, 类型 4X

Packaging unit consisting of:  
10 frame plates with threaded inserts  
30 pressure screw halves  
Type of protection IP 66, Type 4X

**i** 24 极截面尺寸 (单位: mm) : 112 x 36  
Dimensions of the 24-pole cut-out (mm): 112 x 36

螺纹接头外壳材质 Material gland body	颜色 Colour	订购编号 Art. no. supplement	温度范围最小值/最大值 Temperature range min./max.
PA 66-6	灰色 grey		-20 °C / +80 °C
PA 66-6	纯黑色 black	n	-20 °C / +80 °C

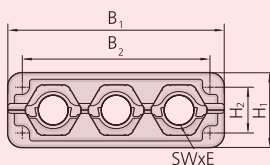


图 3  
Fig. 3

料号 Art. no.	宽度 1 Width 1	高度 1 Height 1	宽度 2 Width 2	高度 2 Height 2	扳手开口宽度 Spanner width
grey =	B1	H1	B2	H2	SW x E
black = n	mm	mm	mm	mm	mm
CUFLG3 954u	149.6	51.6	130	32	35x38.6

**i** 用于安装的螺栓不在发货范围内。我们建议使用 M4 内六角圆柱头螺栓 (Inbus)。  
Screws for the installation are not included with the articles. We recommend M4 socket-head screws with a hexagonal socket (allen).

**i** UL 认证仅针对结合使用 TPE-V 材质的内塞  
UL certification only in combination with sealing inserts made of TPE-V

**i** M25 相应的带开缝内塞参见页码起自 201  
Corresponding slit sealing inserts in size M25 from page 201

UNI Flange® HD — 金属制整体框架

UNI Flange® HD – Complete frame metal



图 1  
Fig. 1

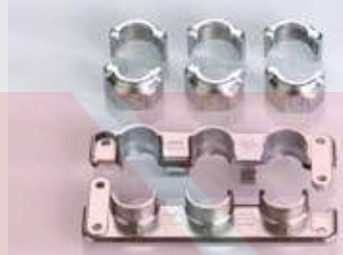


图 2  
Fig. 2

包装单元包括:  
10 个带通孔的框架半体板  
30 个压力螺栓半体件  
20 个密封垫片  
防护等级 IP 66, 类型 4

Packaging unit consisting of:  
10 frame plates with through holes, 30 pressure screw halves,  
20 washers  
Type of protection IP 66, Type 4

**i** 24 极截面尺寸 (单位: mm) : 112 x 36  
Dimensions of the 24-pole cut-out (mm): 112 x 36

螺纹接头外壳材质  
Material gland body  
锌压铸件  
Zinc die casting

规格/颜色  
Version/colour  
镀锌  
zinc plated

温度范围最小值/最大值  
Temperature range min./max.  
-20 °C / +80 °C

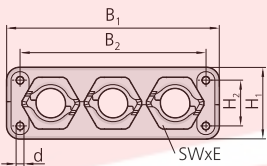


图 3  
Fig. 3

料号 Art. no.	宽度 1 Width 1 B1 mm	高度 1 Height 1 H1 mm	宽度 2 Width 2 B2 mm	高度 2 Height 2 H2 mm	直径 diameter Ø d mm	扳手开口宽度 Spanner width SW x E mm
CUFLD3 954Zn	149	50	130	32	5.5	36x40

451100 | IT0989 10

**i** 用于安装的螺栓不在发货范围内。我们建议使用 M5 内六角圆柱头螺栓 (Inbus)。  
Screws for the installation are not included with the articles. We recommend M5 socket-head screws with a hexagonal socket (allen).

**i** UL 认证仅针对结合使用 TPE-V 材质的内塞  
UL certification only in combination with sealing inserts made of TPE-V

**i** M25 相应的带开缝内塞参见页码起自 201  
Corresponding slit sealing inserts in size M25 from page 201

Leuchtturm  
Automation

UNI Split Gland® – 可分体式接头

UNI Split Gland® – Splittable gland body



图 1  
Fig. 1



图 2  
Fig. 2

可分体式电缆接头  
公制螺纹 EN 60423  
防护等级 IP 67, 类型 4X

Splittable cable gland  
Metric connection thread EN 60423  
Type of protection IP 67, Type 4X

**i** 拧紧力矩的提示信息请参见安装说明书。每个包装单元内均附带安装说明书。  
Advices about tightening torques see assembly instruction. Included in every packaging unit

螺纹接头外壳材质 Material gland body	规格/颜色 Version/colour	订购编号 Art. no. supplement	温度范围最小值/最大值 Temperature range min./max.
PC	灰色 grey		-20 °C / +80 °C
PC	纯黑色 black	n	-20 °C / +80 °C

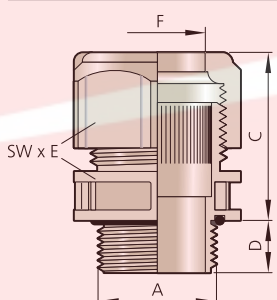


图 3  
Fig. 3

连接螺纹/长度 Connection thread/length		料号 Art. no.	压紧螺栓最大开启压力 Opening pressure screw max.	安装高度 Mounting height	扳手开口宽度 Spanner width
A	D mm	grey = black = n	F mm	C mm	SW x E mm
M20x1.5	10.0	CUSG 922053 PC	15.0	29.7	30x33.5
M25x1.5	11.0	CUSG 922554 PC	20.5	38.5	35x38.5
M32x1.5	14.0	CUSG 923255 PC	26.9	39.6	46x51.3

延伸产品说明详情指示  
Indicate product details

**i** UL 认证仅针对结合使用 TPE-V 材质的内塞  
UL certification only in combination with sealing inserts made of TPE-V

**i** 相应的带开缝密封附件参见页码起自 201  
Corresponding slit sealing inserts from page 201

UNI Split Gland® HD – 可分体式接头

UNI Split Gland® HD – Splittable gland body



图 1  
Fig. 1



图 2  
Fig. 2

可分体式电缆接头  
公制螺纹 EN 60423  
防护等级 IP 67, 类型 4

Splittable cable gland  
Metric connection thread EN 60423  
Type of protection IP 67, Type 4

**i** 拧紧力矩的提示信息请参见安装说明书。每个包装单元内均附带安装说明书。  
Advices about tightening torques see assembly instruction. Included in every packaging unit

螺纹接头外壳材质 Material gland body	规格/颜色 Version/colour	温度范围最小值/最大值 Temperature range min./max.
锌压铸件 Zinc die casting	镀锌 zinc plated	-20 °C / +80 °C

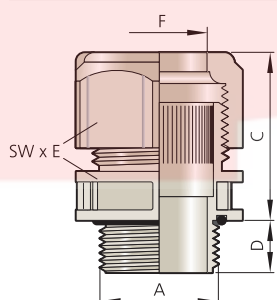


图 3  
Fig. 3

连接螺纹/长度 Connection thread/length		料号 Art. no.	安装高度 Mounting height	扳手开口宽度 Spanner width
A	D mm		F mm	C mm
M25x1.5	11.0	CUSG 922554 Zn	20.6	36.5

**i** UL 认证仅针对结合使用 TPE-V 材质的内塞  
UL certification only in combination with sealing inserts made of TPE-V

**i** M25 相应的带开缝内塞参见页码起自 201  
Corresponding slit sealing inserts in size M25 from page 201

**UNI Dicht® — 封闭内塞 — 防火**

UNI Dicht® sealing insert closed – Fire protection



T80s 材质的内塞  
封闭

Sealing insert made of T80s  
Closed

图 1  
Fig. 1

材质 Material	颜色 Colour	温度范围最小值/最大值 Temperature range min./max.
T80s	纯黑色 black	-40 °C / +130 °C

料号 Art. no.	25
CUFE 954Bg	47300   IT09920

**UNI Dicht® — 内塞 标准开缝 — 防火**

UNI Dicht® sealing insert standard slit – Fire protection



T80s 材质的内塞  
标准开缝

Sealing insert made of T80s  
Standard slit

图 1  
Fig. 1

材质 Material	颜色 Colour	温度范围最小值/最大值 Temperature range min./max.
T80s	纯黑色 black	-40 °C / +130 °C

料号 Art. no.	线径范围 Sealing range 最大/最小 ø mm	25
CUFE 954B11	10.5 – 7.0	47100   IT09910
CUFE 954B13	13.0 – 9.0	25
CUFE 954B16	15.5 – 11.5	25
CUFE 954B18	18.0 – 14.0	25
CUFE 954B20	20.5 – 17.0	25

Leuchtturm  
Automation

**UNI Dicht® — 内塞多重开缝 – 防火**  
*UNI Dicht® sealing insert multiple slit – Fire protection*



T80s 材质的内塞  
 多重开缝  
*Sealing insert made of T80s  
 Multiple slit*

图 1  
 Fig. 1

**i** 下列产品仅是完整目录的节选。根据要求可提供其他型号  
*The products listed here are only a selection of our overall programme. Further versions on request*

材质 <i>Material</i>	颜色 <i>Colour</i>	温度范围最小值/最大值 <i>Temperature range min./max.</i>
T80s	纯黑色 <i>black</i>	-40 °C / +130 °C

料号 <i>Art. no.</i>	
CUFE 954Bm1x2,9/2x6/1x6,1/1x6,8/1x7,3	25
CUFE 954Bm1x3,2/2x6/1x6,1/1x6,8/1x7,3	25
CUFE 954Bm1x4/1x5/1x13	25
CUFE 954Bm1x4,3/1x6/1x8	25
CUFE 954Bm1x4,5/2x7/1x8	25
CUFE 954Bm1x4,5/2x8	25
CUFE 954Bm1x5/1x9	25
CUFE 954Bm1x5,4/2x6,5	25
CUFE 954Bm1x5,7/1x13	25
CUFE 954Bm1x5,7/2x6,3/1x8,5	25
CUFE 954Bm1x6/1x8	25
CUFE 954Bm1x6/2x9	25
CUFE 954Bm1x6,5/1x12	25
CUFE 954Bm1x7	25
CUFE 954Bm1x7/1x8,5	25
CUFE 954Bm1x7/1x10,5	25
CUFE 954Bm1x8,5/1x12	25
CUFE 954Bm2x4,5	25
CUFE 954Bm2x4,5/1x13	25
CUFE 954Bm2x6	25
CUFE 954Bm2x6/2x8	25
CUFE 954Bm2x7,2/1x10,5	25
CUFE 954Bm2x8	25
CUFE 954Bm2x9	25
CUFE 954Bm3x4	25

料号 <i>Art. no.</i>	
CUFE 954Bm3x5	25
CUFE 954Bm3x6/1x8	25
CUFE 954Bm3x6/2x8	25
CUFE 954Bm3x7	25
CUFE 954Bm3x9	25
CUFE 954Bm4x5	25
CUFE 954Bm4x6	25
CUFE 954Bm4x6/1x8	25
CUFE 954Bm4x6,5	25
CUFE 954Bm4x8	25
CUFE 954Bm5x4	25
CUFE 954Bm5x5	25
CUFE 954Bm5x6	25
CUFE 954Bm6x3	25
CUFE 954Bm6x4	25
CUFE 954Bm6x4/1x7	25
CUFE 954Bm6x5	25
CUFE 954Bm6x5,5	25
CUFE 954Bm6x6,5	25
CUFE 954Bm8x3	25
CUFE 954Bm8x4	25
CUFE 954Bm8x5	25
CUFE 954Bm8x5,5	25
CUFE 954Bm9x3	25
CUFE 954Bm21x2	25

47200 | IT09500