

► Read and follow these safety instructions first

## 1. Safety instructions

- 1.1 Installation, mounting (fix into hoses), putting into operation, maintenance, removal and repair may be carried out by qualified experienced specialists with knowledge in pressurized piping construction only.
- 1.2 The statutory and other applicable regulations and standards have to be noticed and kept.
- 1.3 The pressure of maximum 10 bar, temperature of maximum +120 °C, the instructions of the  
> **EC-Declaration of conformity EGKE-DG-K100**  
and – if a limit switch is mounted – the instructions of the  
> **Appliance information KE-GI-... resp. the technical datas of the KE-TD-..**  
have to be noticed and kept.
- 1.4 Putting into operation and pressure admission only
  - after correct building-in of the hose coupling into the delivery hose
  - after correct mounting of the coupling with thread at the tube (threaded connection) and if need by fixation with the locating screw
  - with closed coupling connection

- !!! Before pressurize the tubing make sure that the couplings are correct inserted resp. connected and

with Storz-couplings

- is pulled to the limit stop

with couplings according to DIN 28 450

- the clamping ring is tightened firmly and the safety lever is folded down

with KAMLOK – couplings

- both levers are turned down to the coupling

- 1.5 **Disconnect resp. open the coupling connection only when pressure-free.**



### ATTENTION ! Danger of injuries

- If loosened and opened in pressurized condition the blank coupling, blank cap resp. closing cover or closing plug will accelerate like a bullet and may cause serious injuries and damages.
- If loosened in pressurized condition the hose will lay about one and may cause serious injuries.

- !!! Before loosen resp. open the coupling connection make sure that the tubing is pressure-free.

Depending on over pressure and hose diameter place suitable warning information.

e.g. **"Loosen only in pressure-free condition"**

- 1.6 If one of the coupling elements is damaged the pressurizing has to be shut off immediately and the tubing resp. hose line is to relieve from any pressure.

- 1.7 Elements of the coupling should be removed or demounted only in pressure-free condition.

- !!! For couplings with build-in limit switch take also notice of the safety instructions on the back.

► Read and follow these safety instructions first.

## **2. Safety instructions** for couplings with built-in limit switch

- 2.1 The installation, initial operation and maintenance may be done by a qualified expert with electrical know-how only.
- 2.2 Comply with the electrical connection take notice of the local and statutory rules and regulations and/or the VDE 0100.
- 2.3 Before electrical connection, compare the supply voltage with the details at the data plate.

### for the version KE - ...

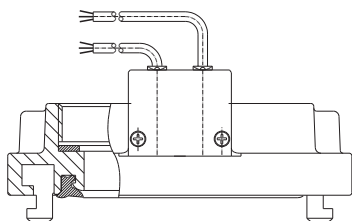
- 2.4 A fuse (with max. 4 A) has to be connected in series to the voltage supply.
- 2.5 Protect the signal contacts from voltage peaks when inductive loads are connected.

### for the version KI - ...

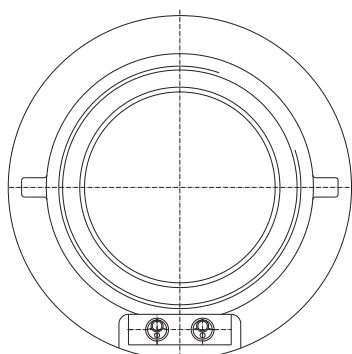
- 2.6 A fuse (with max. 4 A) has to be connected in series to the voltage supply.



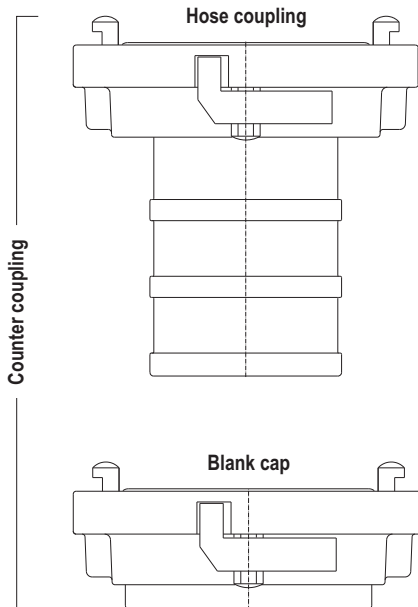
### Illustrations



Fixed coupling



Switch 2      Switch 1



007-0242

### Versions

Available for the coupling size 110-A  
Counter coupling (e.g. Hose coupling always with locking pawl)

The coding can be carried out resp. is available with the two limit switch varieties KI and KN.

Dimensions, technical data, ATEX options see under:

- KI inductive double limit switch      **KE-TD-06**
- KN inductive limit switch NAMUR      **on demand**

### Type selection

Fixed coupling with integrated double limit switch

Type	Order code		
	NG	G	W KL
KI D SZ 110	IG3	AL	2
KI D SZ 110	IG4	AL	2
KI D SZ 110	IG4½	AL	2

NG = Nominal size  
G = Thread  
W = Material  
KL = Cable length  
2=2 m 5=5 m 0=10 m

I = inductive limit switch  
N = inductive limit switch NAMUR

Materials (W)      AL = Aluminium  
                         AV = Aluminium/1.4571 / 316 Ti  
                         VA = 1.4571 / 316 Ti  
                         MS = Brass

### Switching system

The coupling with inside thread has two built-in inductive limit switches as double switches beneath.

The counter coupling is coded in that way that either switch 1, switch 2 or switch 1 and 2 will be actuated.

So, in this way can be identified which counter coupling has been coupled at the moment.

#### Counter coupling

Order code	actuates switch number	
	1	2
K- . SZ110 - XXX - SP - CD - AL - 09	●	
K- . SZ110 - XXX - SP - CD - AL - 06		●
K- . SZ110 - XXX - SP - CD - AL - 15	●	●

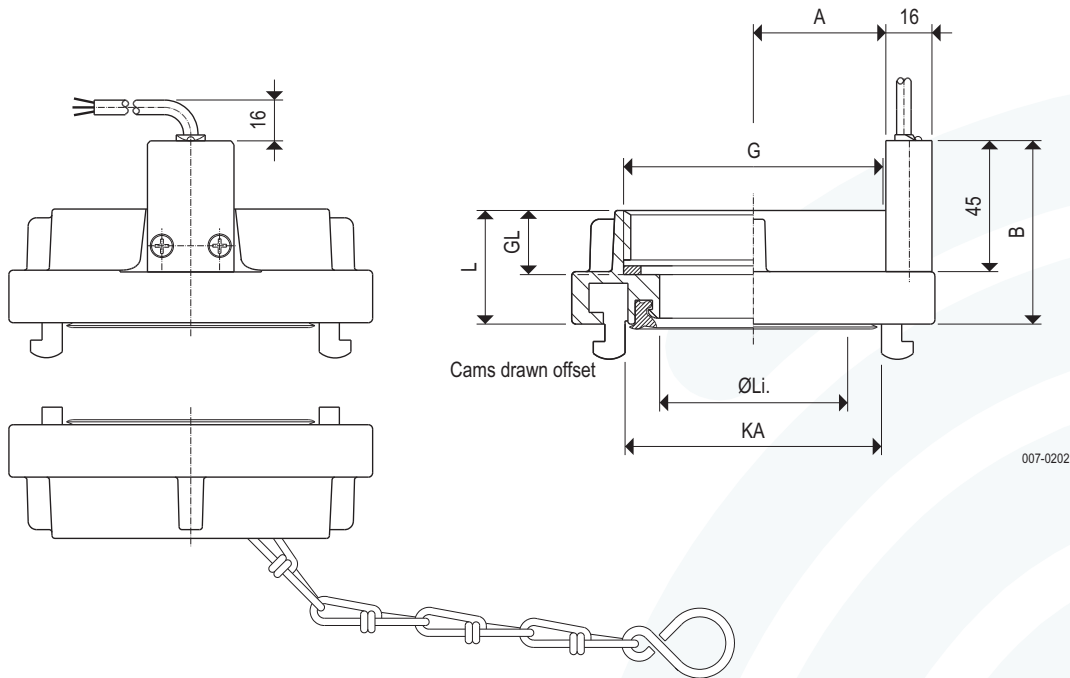
fill out Ø of hose nozzle e.g. 080 for Ø 80 mm  
or enter thread size e.g. IG4

S = Hose coupling  
L = Blanc cap

Coding 1/3 with a double limit switch



## Dimensions



Order code										
Type	NG	G	W	KL	KA	Li	L	GL	A	B
KI - SZ 052	IG2	AL	2	66	44.5	40	20	32	62	62
KI - SZ 065	IG2	AL	2	81	45	37	20	42	62	62
KI - SZ 065	IG2½	AL	2	81	58	52	20	42	62	62
KI - SZ 075	IG2	AL	2	89	50	38	20	42	63	63
KI - SZ 075	IG2½	AL	2	89	64.5	42	20	42	63	63
KI - SZ 075	IG3	AL	2	89	64.5	39	22	45	63	63
KI - SZ 090	IG3	AL	2	105	78	40	22	50	64	64
KI - SZ 100	IG4	AL	2	115	89.5	47	25	50	67	67
KI - SZ 110	IG4	AL	2	133	100	48	25	68	67	67
KI - SZ 110	IG4½	AL	2	133	100	48	25	68	67	67
KI - SZ 125	IG5	AL	2	148	115	52	28	75	70	70
KI - SZ 150	IG6	AL	2	160	130	60	30	85	71	71

We deliver fundamentally with white DS-Seal rings, for high pressure and low pressure. (acc. to KE-TD-11)

NG = Nominal size  
G = Thread  
W = Material  
KL = Cable length  
KA = Lug distance  
Li = Inner diameter

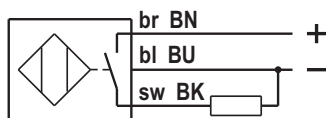
According to Directive 97/23/EC for pressure equipment:  
Usable for hazardous gases and liquids of group 1 up to 10 bar and up to DN 100

For example in pneumatic conveyor systems with combustible dusts etc.

Result of the evaluation of ignition danger acc. to DIN EN 13463-1:  
The couplings (without switches) have no potential source of ignition on their own.

## Wiring connection

Cable 3 x 0.34 mm<sup>2</sup>  
Cable length (KL) 2 = 2 m  
5 = 5 m  
0 = 10 m



TURCK BI3U

007-AP01

## Technical data

Materials (W) AL = Aluminium  
AV = Aluminium/1.4581 / 318 or 1.457X  
MS = Brass  
VA = 1.4581 / 318 or 1.457X

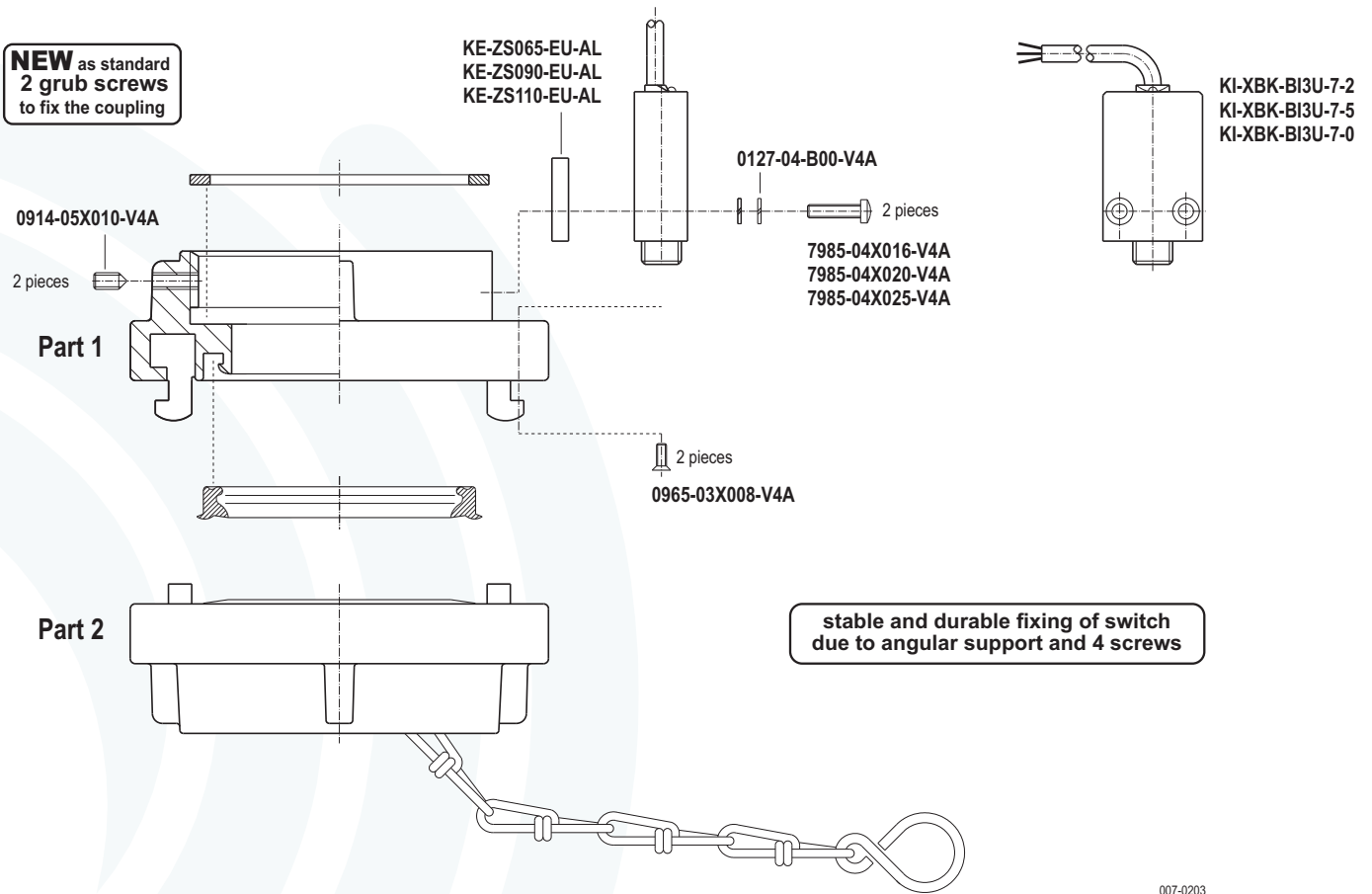
Switch active surface CuZn, chromium plated  
PA12-GF30

Mounting position any  
Ambient temperature -20 °C ... +60 °C  
Supply voltage 10 ... 30 V DC  
Load current capacity ≥ 200 mA, constant current  
Switching function PNP, Normally open  
Type of protection IP68 acc. to DIN EN 60529  
Maintenance none

ATEX-Option

B0 Dust  II 3D Ex tD A22 IP68 T95 °C

## Components



007-0203

### Order code Part 1

	NG	G	W	
K - FSZ 052	IG2	AL	E	
K - FSZ 065	IG2	AL	E	
K - FSZ 065	IG2½	AL	E	
K - FSZ 075	IG2	AL	E	
K - FSZ 075	IG2½	AL	E	
K - FSZ 075	IG3	AL	E	
K - FSZ 090	IG3	AL	E	
K - FSZ 100	IG4	AL	E	
K - FSZ 110	IG4	AL	E	
K - FSZ 110	IG4½	AL	E	
K - FSZ 125	IG5	AL	E	
K - FSZ 150	IG6	AL	E	

### Order code Part 2

	NG	W
K - BSZ052 - 00 - AL - M		
K - BSZ065 - 00 - AL - M		
K - BSZ065 - 00 - AL - M		
K - BSZ075 - 00 - AL - M		
K - BSZ075 - 00 - AL - M		
K - BSZ075 - 00 - AL - M		
K - BSZ075 - 00 - AL - M		
K - BSZ090 - 00 - AL - M		
K - BSZ100 - 00 - AL - M		
K - BSZ110 - 00 - AL - M		
K - BSZ110 - 00 - AL - M		
K - BSZ125 - 00 - AL - M		
K - BSZ150 - 00 - AL - M		

NG = Nominal size  
G = Thread  
W = Material

incl. Seal rings

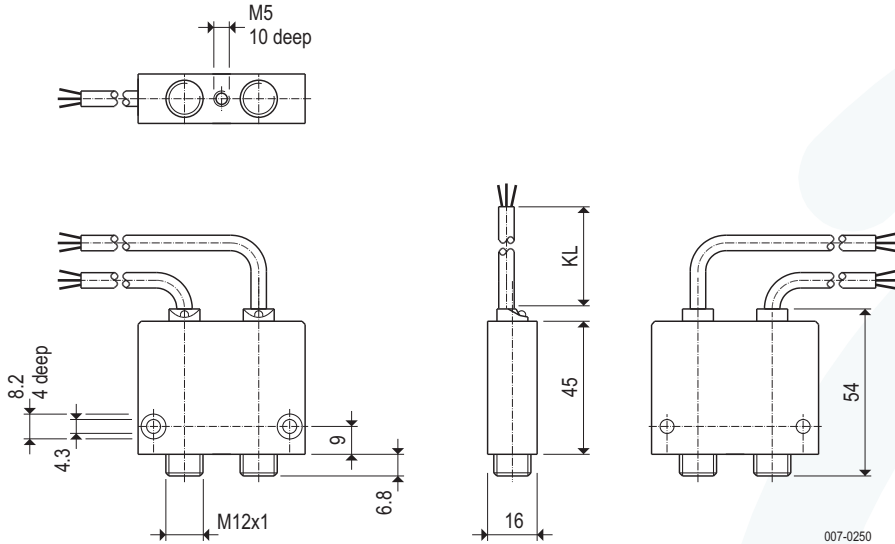
Seal rings and chains depending on the type and acc. to data sheet KE-TD-11

incl. Seal rings and chain

Materials (W) AL = Aluminium  
AV = Aluminium/1.4581 / 318 or 1.457X  
VA = 1.4581 / 318 or 1.457X  
MS = Brass

## Dimensions

KI2-XBK-BI3U-7- .  
KID-XBK-BI3U-7- .

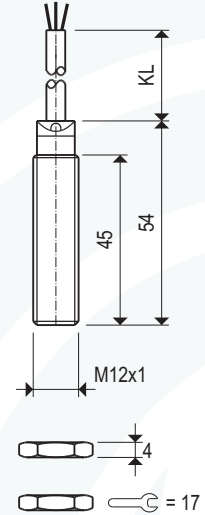


### Order code

KI-XBK-BI3U-7-2 for 2 m cable  
KI-XBK-BI3U-7-5 for 5 m cable  
KI-XBK-BI3U-7-0 for 10 m cable

KI-BI3U-M12AP- .

Brand TURCK  
Type Bi3U-M12-AP6X  
Ident-no. 16 341 00



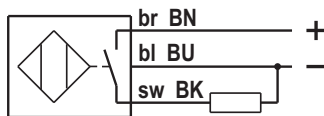
### Order code

KI-BI3U-M12AP-2 for 2 m cable  
KI-BI3U-M12AP-5 for 5 m cable  
KI-BI3U-M12AP-0 for 10 m cable

further technical data you can get under  
[www.turck.de](http://www.turck.de)

## Wiring connection

Cable 3 x 0.34 mm<sup>2</sup>  
Cable length (KL) 2 = 2 m  
5 = 5 m  
0 = 10 m



TURCK BI3U

007-AP01

## Technical data

<b>Materials</b>	Switch active surface	CuZn, chromium plated PA12-GF30
	Clamping bracket	AlMgSi1
<b>Mounting position</b>		any
<b>Ambient temperature</b>		-20 °C ... +60 °C
<b>Supply voltage</b>		10 ... 30 V DC
<b>Load current capacity</b>		≤ 200 mA, constant current
<b>Switching function</b>		PNP, Normally open
<b>Type of protection</b>		<b>IP68</b> acc. to DIN EN 60529
<b>Maintenance</b>		none

ATEX-Option

B0 **Dust**  II 3D Ex tD A22 IP68 T95 °C



**Spare parts**



007-0256

**Seal rings for high pressure and low pressure (DS)**

PN 16 in nitril caoutchouc ( white )

Size	Article no.	Dimensions (mm)
52=C	<b>603 036 68</b>	64x47x10
65	<b>603 037 68</b>	79x60x10
75=B	<b>603 038 68</b>	87x67x10.5
90	<b>602 039 68</b>	103x93x10
100	<b>603 039 68</b>	113x93x10
110=A	<b>603 040 68</b>	130x102x12
125	<b>603 041 68</b>	144x177x12.5
150	<b>602 041 68</b>	157x132x11.5

**Seal rings for high pressure and low pressure (DS)**

PN 16 in nitril caoutchouc ( green )

Size	Article no.	Dimensions (mm)
52=C	<b>602 023 52</b>	64x47x10
75=B	<b>400 736 52</b>	87x67x10.5
110=A	<b>402 573 52</b>	130x102x12



007-0257

**Seal rings for high pressure (D)**

PN 16 in nitril caoutchouc ( white )

Size	Article no.	Dimensions (mm)
52=C	<b>603 045 68</b>	64x47x10.5
65	<b>602 004 68</b>	75x60x10.5
75=B	<b>603 046 68</b>	82x67x10
100	<b>603 047 68</b>	108x93x10.5

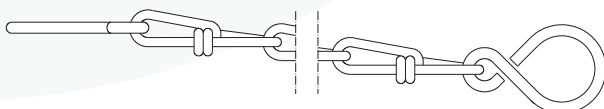


007-0258

**Thread joint ring**

in nitril caoutchouc ( white )

Size	Article no.	Dimensions (mm)
G 2	<b>602 135 50</b>	47x60x3
G 2½	<b>602 137 50</b>	66x76x3
G 3	<b>602 138 68</b>	78x88x3
G 4	<b>602 139 68</b>	100x113x3
G 4½	<b>602 140 50</b>	105x126x3
G 5	<b>602 141 68</b>	118x138x3
G 6	<b>602 142 50</b>	152x164x4



007-0259

**Chain with S-hook**

Size	Steel, galvanized Article no.	Stainless steel Article no.	Chain length
052-090	<b>503 123 00</b>	<b>91-006066-70</b>	280 mm
100-110	<b>503 124 00</b>	<b>91-006133-70</b>	390 mm
125-205	<b>602 267 48</b>	on request	535 mm





# EG-Konformitätserklärung EC-Declaration of Conformity

Wir/We

**MOLLET Füllstandtechnik GmbH**

Industriepark RIO 103  
D-74706 Osterburken  
Tel. 06291 64400 Fax 06291 9846

erklären hiermit, dass die Geräte:

declare that the devices:

**Schlauch-Kupplungen** mit den elektrischen Betriebsmitteln:  
Endschalter, Codeträger, Lesekopf, Lesestation, Expanderkarte  
der Typenreihe:

**Hose couplings** with the electrical equipment:  
limit switch, code carrier, read head, read station,  
processor unit, expander card of type:

**KE ... , KI ... , KN ... , KL ... , KC ...**

**KE ... , KI ... , KN ... , KL ... , KC ...**

auf die sich diese Erklärung bezieht, den folgenden Normen  
oder normativen Dokumenten entsprechen:

to which this declaration relates is in accordance with  
the following standards or other normative documents:

**Richtlinie 2006/95/EG** (NSR-Richtlinie)  
**Richtlinie 2004/108/EG** (EMV-Richtlinie)

**Directive 2006/95/EC** (Directive LVD)  
**Directive 2004/108/EC** (Directive EMC)

und

and

**EN 61010-1, EN 60529**  
**EN 61326-1**

**EN 61010-1, EN 60529**  
**EN 61326-1**

Die grundlegenden Sicherheits- und Gesundheitsanforderungen werden erfüllt gemäß den Bestimmungen der Richtlinien und durch Einhaltung der Normen soweit es im Rahmen des Lieferumfanges möglich ist.

The Essential Health and Safety Requirements are assured by compliance with the directive and observance of the normative documents, as far as the scope of delivery allows.

Osterburken, 07. Januar 2010

Osterburken, January 7th 2010



Wolfgang Hageleit

Diese Erklärung darf nur unverändert  
weiterverbreitet werden.

This declaration is only allowed to  
hand out in unchanged form.





# EG-Konformitätserklärung EC-Declaration of Conformity

Wir/We

**MOLLET Füllstandtechnik GmbH**

Industriepark RIO 103  
D-74706 Osterburken  
Tel. 06291 64400 Fax 06291 9846

erklären hiermit, dass die Geräte:

declare that the devices:

**Schlauch- und Rohr-Kupplungen** der Typenreihen:

**Hose and pipe couplings** of type:

**K...SZ... , K...VK... , K...AVK... , K...AMK... ,  
K-FSZ... , K-SSZ... , K-BSZ... , K-LSZ... ,  
K-MK... , K-MB... , K-AVK... , K-AMK...**  
aus Aluminum, Edelstahl oder Messing

**K...SZ... , K...VK... , K...AVK... , K...AMK... ,  
K-FSZ... , K-SSZ... , K-BSZ... , K-LSZ... ,  
K-MK... , K-MB... , K-AVK... , K-AMK...**  
made of aluminum, stainless steel or brass

**DN 32 bis DN 100**

**DN 32 to DN 100**

auf die sich diese Erklärung bezieht, den folgenden Normen  
oder normativen Dokumenten entsprechen:

to which this declaration relates is in accordance with  
the following standards or other normative documents:

**Richtlinie 97/23/EG** (Druckgeräte-Richtlinie)

**Directive 97/23/EC** (Directive Pressure Equipment)

Die grundlegenden Sicherheits- und Gesundheitsanforderungen werden erfüllt gemäß den Bestimmungen der Richtlinie.

The Essential Health and Safety Requirements are assured by compliance with the directive.

Einstufung:  
**Druckhaltendes Ausrüstungsteil der Kategorie I**

Categorization:  
**Pressure accessories of category I**

Fluidgruppe (Art. 9):  
**1**

Fluid group (Art. 9):  
**1**

Mediumzustand:  
**gasförmig, flüssig und staubhaltig, wenn pD >0,5 bar**

Condition of fluid:  
**gaseous, liquid and dusty, if pD >0,5 bar**

Angewandetes Konformitätsverfahren:  
**Modul A**

Applied conformity assessment procedures:  
**Modul A**

Diese Konformitätserklärung ist nur gültig in Verbindung mit den aktuellen Sicherheitshinweisen KE-SH- ..

The declaration of conformity is only valid in connection with our current safety instructions KE-SH- ..

Osterburken, 07. Januar 2010

Osterburken, January 7th 2010



Wolfgang Hageleit

Diese Erklärung darf nur unverändert  
weiterverbreitet werden.

This declaration is only allowed to  
hand out in unchanged form.

# Hersteller-Bescheinigung Manufacturer`s Certificate

Wir/We

**MOLLET Füllstandtechnik GmbH**

Industriepark RIO 103  
D-74706 Osterburken  
Tel. 06291 64400 Fax 06291 9846

bescheinigen hiermit, dass die Geräte:

declare that the devices:

**Schlauch- und Rohr-Kupplungen** der Typenreihen:

**Hose and pipe couplings** of type:

**K...SZ... , K...VK... , K...AVK... , K...AMK... ,  
K-FSZ... , K-SSZ... , K-BSZ... , K-LSZ... ,  
K-MK... , K-MB... , K-AVK... , K-AMK...**

aus Aluminum, Edelstahl oder Messing

**K...SZ... , K...VK... , K...AVK... , K...AMK... ,  
K-FSZ... , K-SSZ... , K-BSZ... , K-LSZ... ,  
K-MK... , K-MB... , K-AVK... , K-AMK...**

made of aluminum, stainless steel or brass

**DN 101 bis DN 150**

**DN 101 to DN 150**

auf die sich diese Bescheinigung bezieht, den folgenden  
Normen oder normativen Dokumenten entsprechen:

to which this certificat relates is in accordance with  
the following standards or other normative documents:

**Richtlinie 97/23/EG** (Druckgeräte-Richtlinie)

**Directive 97/23/EC** (Directive Pressure Equipment)

Die grundlegenden Sicherheits- und Gesundheitsan-  
forderungen werden erfüllt gemäß den Bestimmungen  
der Richtlinie.

The Essential Health and Safety Requirements are assured  
by compliance with the directive.

Einstufung:

**Druckhaltendes Ausrüstungsteil nach Art. 3 Abs. 3**

Categorization:

**Pressure accessories of acc. Art.3 (3)**

Fluidgruppe (Art. 9):

**2**

Fluid group (Art. 9):

**2**

Mediumzustand:

**gasförmig oder flüssig, wenn pD >0,5 bar**

Condition of fluid:

**gaseous or liquid, if pD >0,5 bar**

Angewendetes Konformitätsverfahren:

**keines, es gilt die gute Ingenieurspraxis**

Applied conformity assesment procedures:

**none, accordance with the sound engineering practice**

Diese Hersteller-Bescheinigung ist nur gültig in Verbindung  
mit der aktuellen Sicherheitshinweisen KE-SH- ..

The manufacturer`s certificate is only valid in connection  
with our current safety instructions KE-SH- ..

Osterburken, 07. Januar 2010

Osterburken, January 7th 2010



Wolfgang Hageleit