

► 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 special conditions and safety instructions



2. General safety instructions

- 2.1 The installation, maintenance, initial operation, removal and repair have to be controlled resp. checked by an “authorized person” for explosion protection.
- 2.2 Comply with the requirements of DIN EN 60079-14, DIN EN 60079-17 and DIN EN 1127-1, especially regarding the dust deposits and temperatures and follow the pertinent rules and regulations.



3. Safety Instructions **Gas+Dust** and **hybrid mixtures** for the application of couplings in explosive hazardous areas.

- 3.1 The couplings are allowed to be mounted on tubing
 - when the internal is classified as zone 0 or zone 20 resp. zone 0+20 (hybrid mixtures) or lower
 - when the external area is classified as zone 1 or zone 21 resp. zone 1+21 (hybrid mixtures) or lower
- !!! By attached electrical devices – e.g. limit switches or RFID – systems to recognize the connection – the couplings has to be mounted in the external area just in that zone the electrical devices are classified for.
- 3.2 The coupling has to be constantly conductible connected to the electrically conductive, earthed tubing.
 - If the tubing is not electrically conductive the coupling has to be earthed.
- 3.3 If combustible gases and vapours or combustible dusts with a minimum ignition energy under 3 mJ or a minimum ignition temperature under +300 °C (BAM assessment) were carried inside the coupling resp. by an appliance within zone 0 and/or zone 20 only the stainless steel variants of the product touching parts are permissible.



4. Safety Instructions for the application of limit switches in explosive hazardous areas.

- 4.1 Comply with the electrical connection take notice of the local and statutory rules and regulations and/or the VDE 0100.
- 4.2 Before electrical connection, compare the supply voltage with the details at the data plate.

for the version KE and KI Option B0 **Dust**

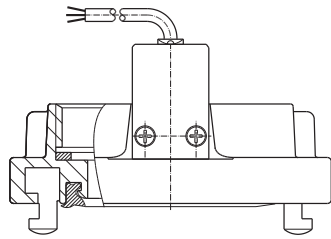
- 4.3 The limit switches can be used in areas classified as zone 22.
- 4.4 A fuse (with max. 4 A) has to be connected in series to the supply voltage.
- 4.5 Protect the signal contacts of the limit switch KE against voltage peaks when inductive loads are connected.

for the version KN **Gas+Dust**

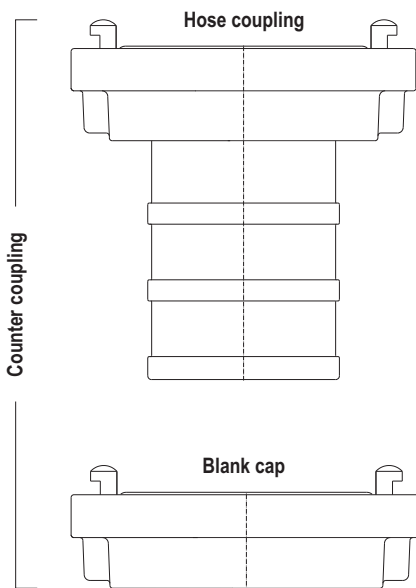
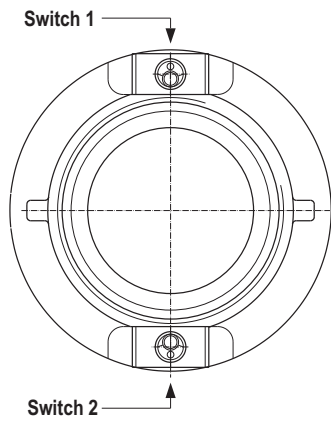
- 4.6 The limit switches can be used in areas classified as zone 1 and zone 20 or lower.
- 4.7 To keep the intrinsically reliability a certified barrier or a certified isolation amplifier with an intrinsically safe circuit according to the present category has to be connected in series for power limitation.



Illustration



Fixed coupling



007-0234

The coupling with inside thread has two built-in limit switches.

During the coupling of a counter coupling either one or two limit switches will be actuated.

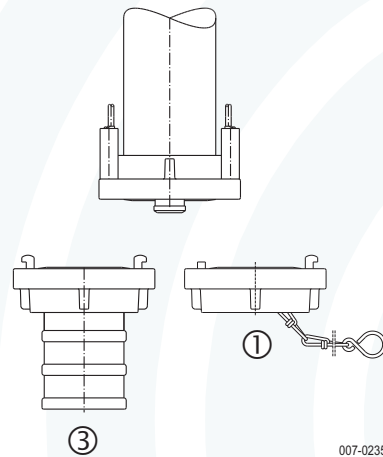
So, in this way can be identified which counter coupling has been coupled at the moment.

Example of application

Silo filling process 1

Sensing whether silo trailer ③ or blanc cap ① has been coupled.

- Coupling ③ of the silo trailer is actuating two switches
- Blank cap ① actuates one switch.



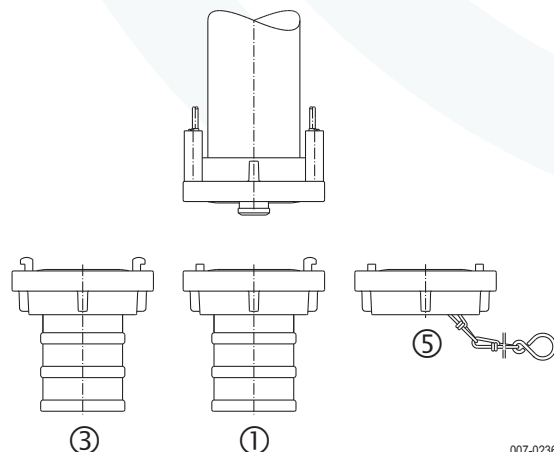
007-0235

Silo filling process 1

Sensing whether silo trailer ③ or coupling ① has been coupled.

E.g. coupling ① is interoffice production inert gas - or dry air overlay

- Silo trailer ③ actuates two switches
- Coupling ① actuates one switch
- The blanc cap ⑤ actuates no switch



007-0236

Versions

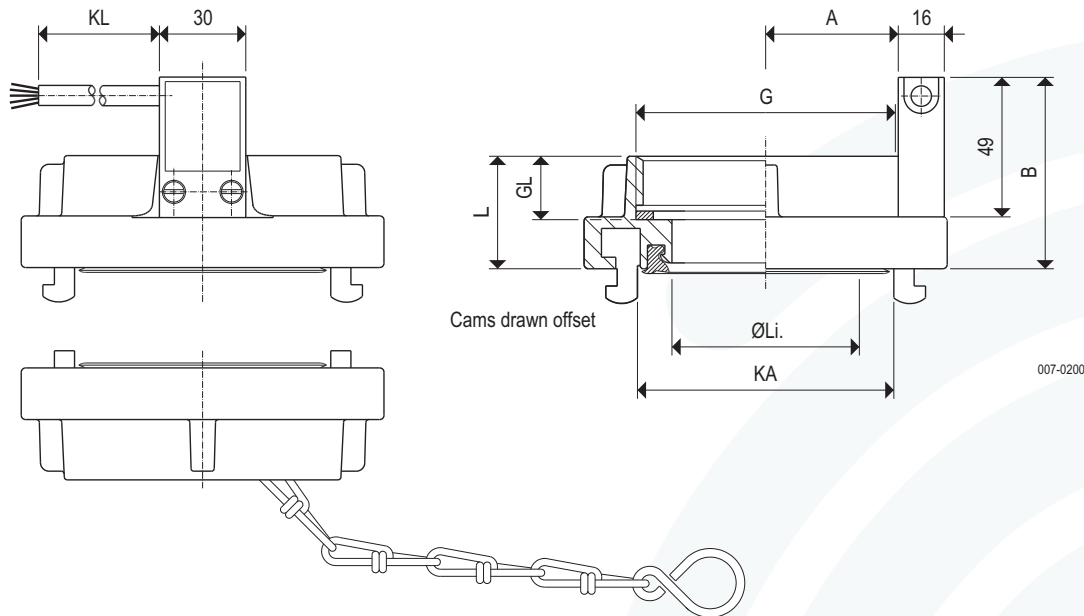
The coding can be carried out with all three limit switch variants KE, KI and KN and can be mounted at couplings of all sizes.

Dimensions, technical data, ATEX options and connections see under:

- | | | |
|----|------------------------------|----------|
| KE | mechanical limit switch | KE-GI-02 |
| KI | inductive limit switch | KE-GI-04 |
| KN | inductive limit switch NAMUR | KE-GI-06 |

2 inductive limit switches can also be mounted at VK and AVK couplings.

Dimensions



Order code										
Type	NG	G	W	KL	KA	Li.	L	GL	A	B
KE - SZ 052	IG2	AL	2	66	44.5	40	20	32	66	
KE - SZ 065	IG2	AL	2	81	45	37	20	42	66	
KE - SZ 065	IG2½	AL	2	81	58	52	20	42	66	
KE - SZ 075	IG2	AL	2	89	50	38	20	42	67	
KE - SZ 075	IG2½	AL	2	89	64.5	42	20	42	67	
KE - SZ 075	IG3	AL	2	89	64.5	39	22	45	67	
KE - SZ 090	IG3	AL	2	105	78	40	22	50	68	
KE - SZ 100	IG4	AL	2	115	89.5	47	25	50	71	
KE - SZ 110	IG4	AL	2	133	100	48	25	68	71	
KE - SZ 110	IG4½	AL	2	133	100	48	25	68	71	
KE - SZ 125	IG5	AL	2	148	115	52	28	75	73	
KE - SZ 150	IG6	AL	2	160	130	60	30	85	75	

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

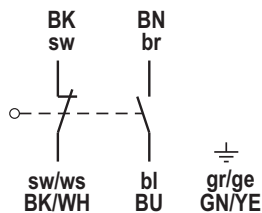
NG = Nominal size
G = Thread
W = Material
KL = Cable length
KA = Lug distance
Li. = Inner diameter

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 5 x 0.75 mm²
Cable length (KL) 2 = 2 m
5 = 5 m
0 = 10 m



007-AP00

Technical data

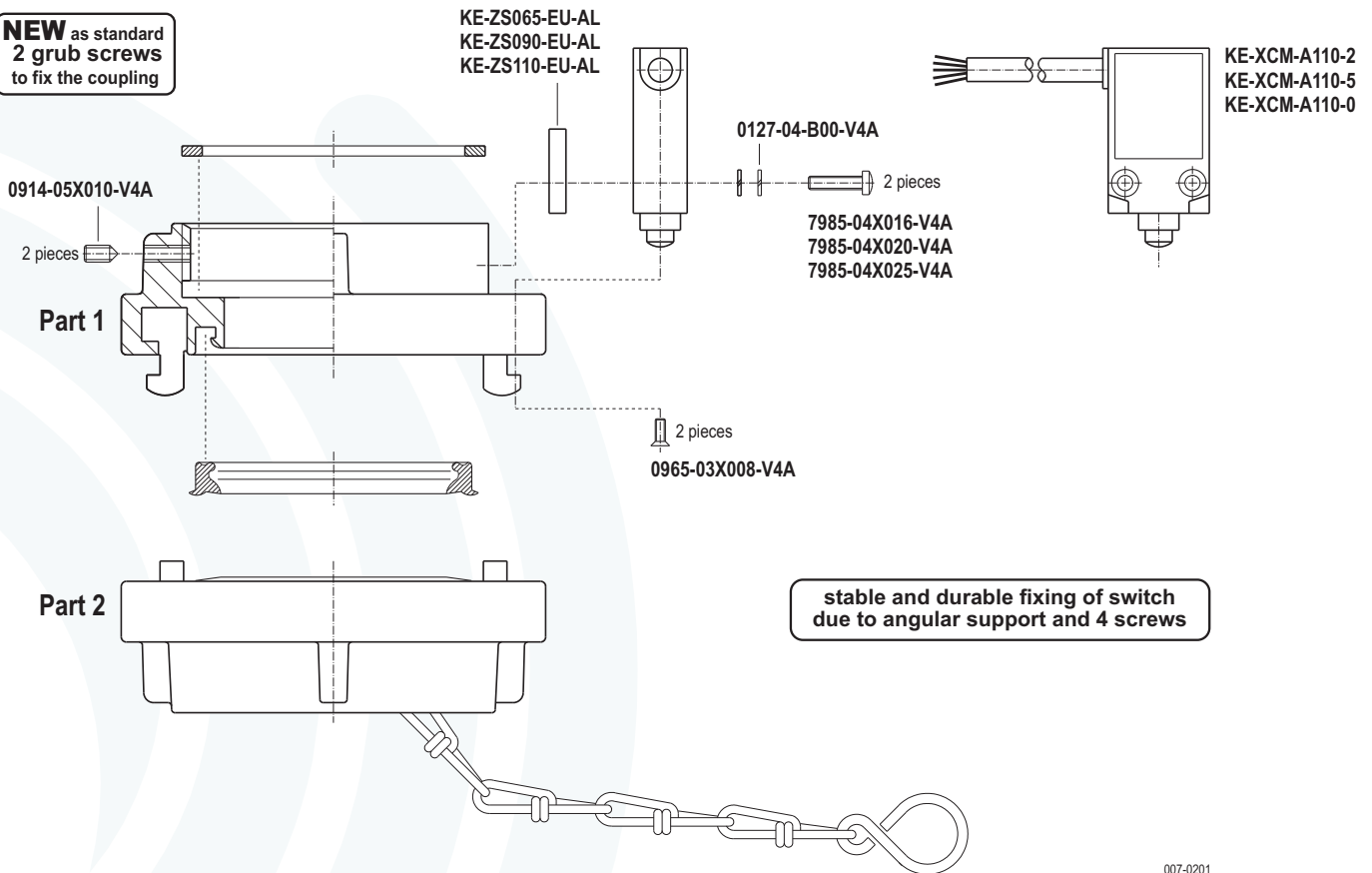
Materials	(W) AL = Aluminium AV = Aluminium/1.4581 / 318 or 1.457X MS = Brass VA = 1.4581 / 318 or 1.457X
Switch	Zn-Al alloy
Varnish coating	Switch red
Mounting position	any
Ambient temperature	-25 °C ... +70 °C
Capacity of the contact	1.5 A / 250 V AC
Switching function	1 NC and 1 NO
Type of protection	IP67 acc. to DIN EN 60529
Maintenance	none

ATEX-Option

B0 Dust  II 3D Ex tc IIIC T80 °C

Components

NEW as standard
2 grub screws
to fix the coupling



007-0201

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

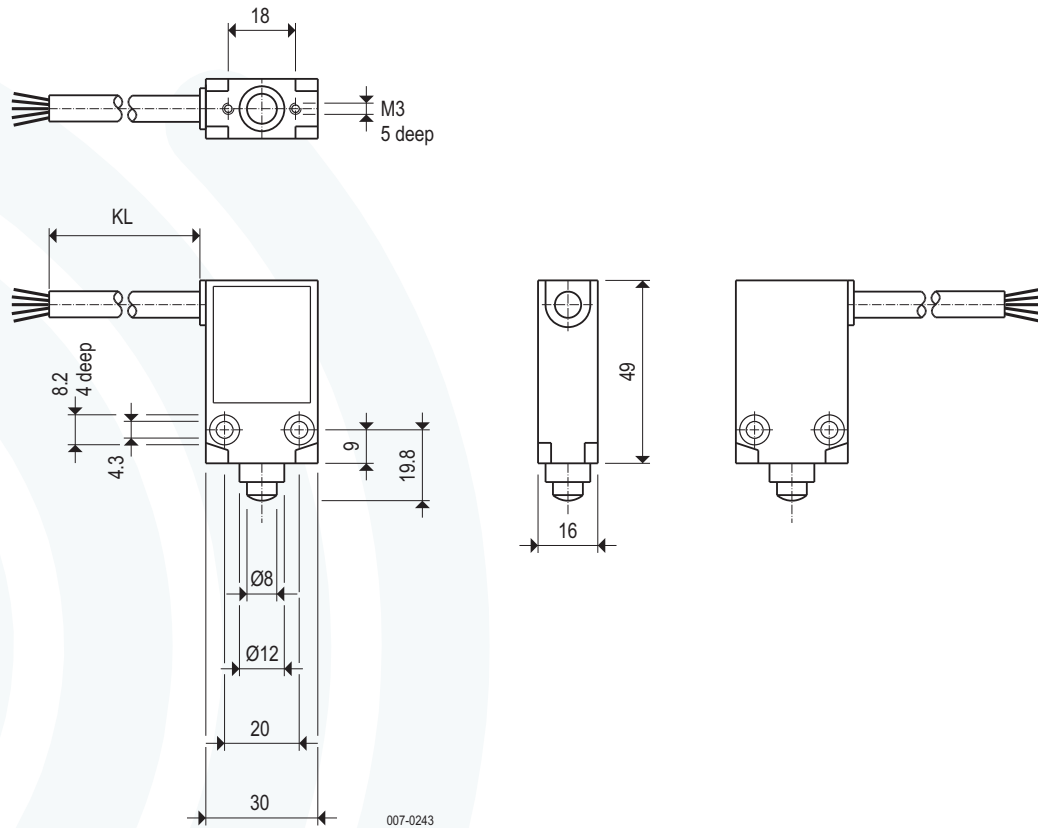
incl. Seal rings

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

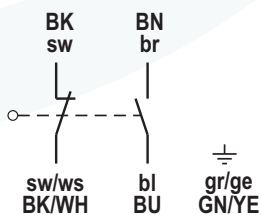


Order code

KE-XCM-A110-2	for 2 m cable
KE-XCM-A110-5	for 5 m cable
KE-XCM-A110-0	for 10 m cable

Wiring connection

Cable	5 x 0.75 mm ²
Cable length (KL)	2 = 2 m 5 = 5 m 0 = 10 m



Technical data

Materials	Zn-Al alloy
Varnish coating	red
Mounting position	any
Ambient temperature	-25 °C ... +70 °C
Capacity of the contact	1.5 A / 250 V AC
Switching function	1 NC and 1 NO
Type of protection	IP67 acc. to DIN EN 60529
Maintenance	none

ATEX-Option

B0 **Dust**  II 3D Ex tc IIIC T80 °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	603 036 68	64x47x10
65	603 037 68	79x60x10
75=B	603 038 68	87x67x10.5
90	602 039 68	103x93x10
100	603 039 68	113x93x10
110=A	603 040 68	130x102x12
125	603 041 68	144x177x12.5
150	602 041 68	157x132x11.5

Seal rings for high pressure and low pressure (DS)

PN 16 in nitril caoutchouc (green)

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



007-0257

Seal rings for high pressure (D)

PN 16 in nitril caoutchouc (white)

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

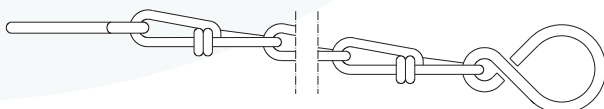


007-0258

Thread joint ring

in nitril caoutchouc (white)

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



007-0259

Chain with S-hook

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

Mechanischer Endschalter (Positionsschalter)

Limit switch

Typ **KE-XCM-A110-.B0**

Type **KE-XCM-A110-.B0**

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 94/9/EG (Explosionsschutz-Richtlinie)

Directive 94/9/EC (Directive ATEX)

und

and

EN 60079-0:2009, EN 60079-31:2009

EN 60079-0:2009, EN 60079-31:2009

Die grundlegenden Sicherheits- und Gesundheitsanforderungen werden erfüllt gemäß den Bestimmungen der Richtlinien und durch Einhaltung der Normen.

The Essential Health and Safety Requirements are assured by compliance with the directive and observance of the normative documents.

Die Geräte sind mit folgenden Angaben gekennzeichnet:

The marking of the equipment includes the following:

CE  II 3D Ex tc IIIC T 80 °C

$-25\text{ °C} \leq T_a \leq +70\text{ °C}$

Prüfprotokollnummer

ATEX-PP-03-903

Test report number

Osterburken, den 20.05.2010

Osterburken, May 20th 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