

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
  - > EU-Declaration of conformity EUKE-DG-K100and – 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.

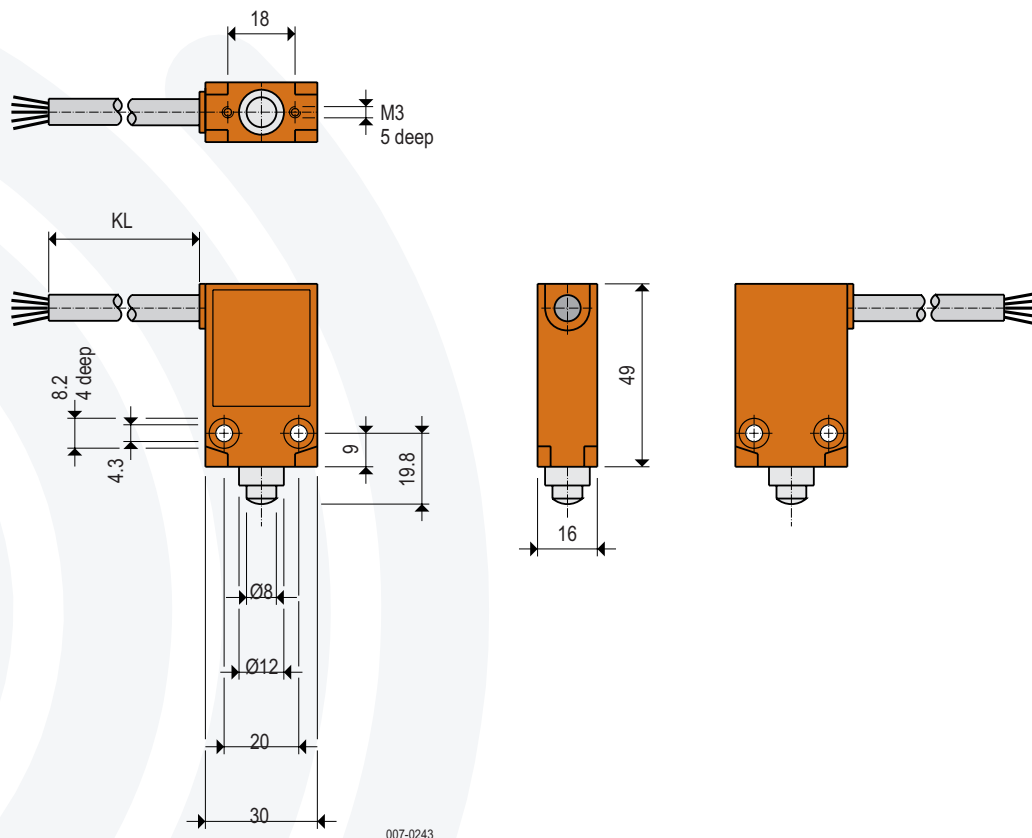
for the version KN **Gas+Dust** 

- 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.



## Technical data

### Dimensions

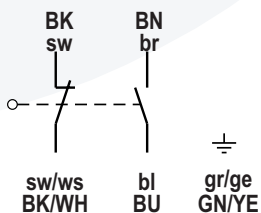


#### Order code

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 <sup>2</sup>
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/IP65 acc. to DIN EN 60529
Maintenance	none

ATEX option

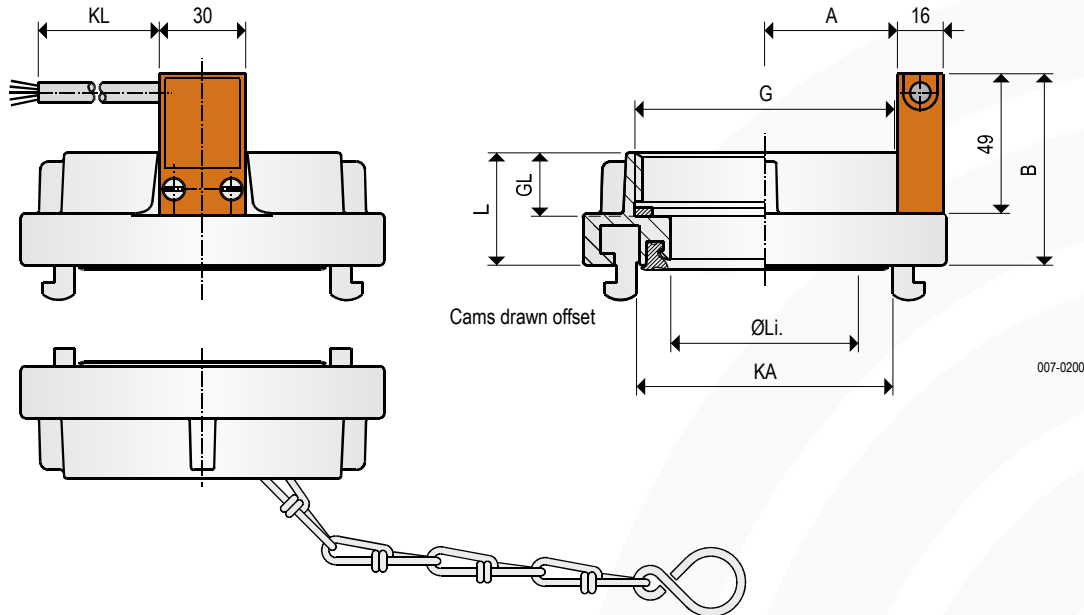
B0



II 3D Ex tc IIIC T80 °C

## Appliance information

### Dimensions



007-0200

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 2014/68/EU for pressure equipment:

Usable for hazardous gases and liquids of group 1 up to 10 bar and up to DN 100

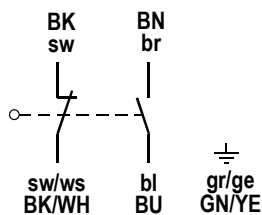
For example in pneumatic conveyor systems with combustible dusts etc.

Result of the evaluation of ignition danger acc. to DIN EN ISO 80079-36:

The couplings (without switches) have no potential source of ignition on their own.

### Wiring connection

Cable 5 x 0.75 mm<sup>2</sup>  
Cable length (KL) 2 = 2 m  
5 = 5 m  
0 = 10 m



007-AP00

### Technical data

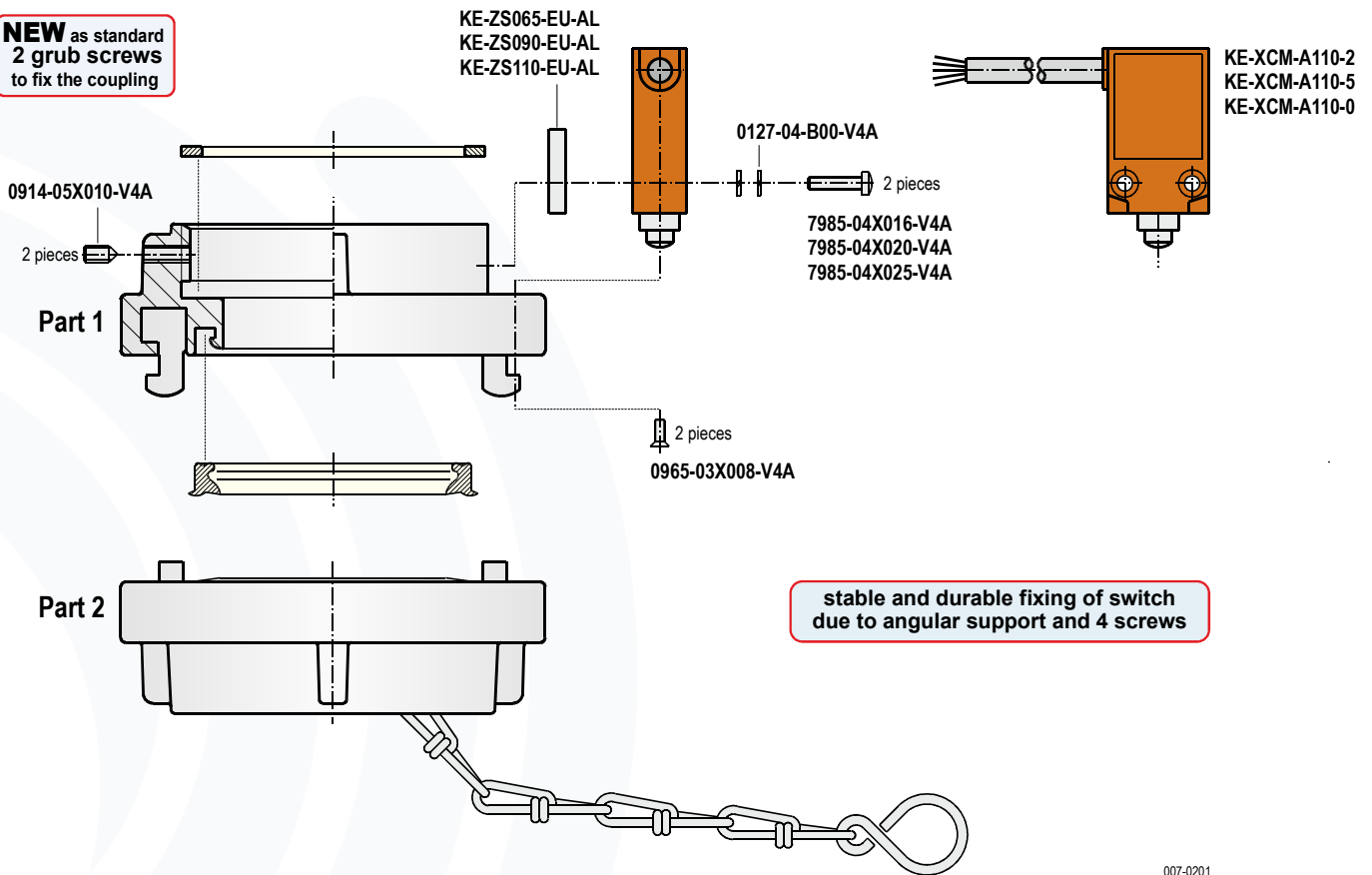
Materials	(W)	AL = Aluminium
		AV = Aluminium/1.4581 / 318 or 1.457X
		MS = Brass
		VA = 1.4581 / 318 or 1.457X
Switch		Zn-Al alloy
Varnish coating	Switch	red
Mounting position		any
Ambient temperature		-25 °C ... +70 °C
Capacity of the contact		1.5 A / 250 V AC
Switching function		1 NC and 1 NO
Type of protection		IP67/IP65 acc. to DIN EN 60529
Maintenance		none

ATEX option

B0 Dust  II 3D Ex tc IIIC T80 °C

## Single parts

**NEW** as standard  
2 grub screws  
to fix the coupling



stable and durable fixing of switch  
due to angular support and 4 screws

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	AL	M
K - BSZ065	AL	M
K - BSZ065	AL	M
K - BSZ075	AL	M
K - BSZ075	AL	M
K - BSZ075	AL	M
K - BSZ075	AL	M
K - BSZ090	AL	M
K - BSZ100	AL	M
K - BSZ110	AL	M
K - BSZ110	AL	M
K - BSZ125	AL	M
K - BSZ150	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 K-TD-11

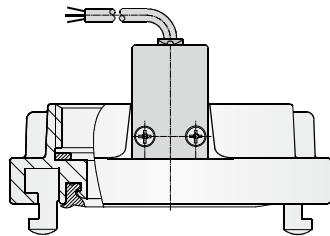
incl. Seal rings and chain

**Materials (W)**

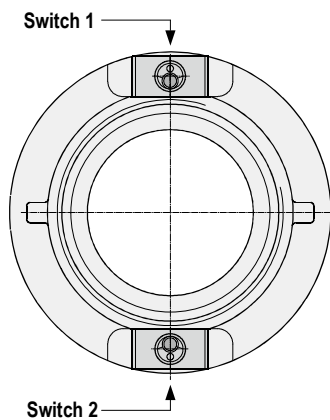
- AL = Aluminium
- AV = Aluminium/1.4581 / 318 or 1.457X
- VA = 1.4581 / 318 or 1.457X
- MS = Brass

## Appliance information

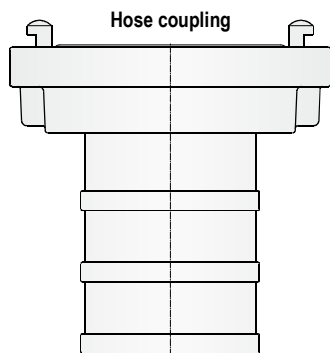
### Illustrations



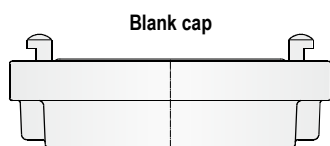
Fixed coupling



Switch 2



Hose coupling



Blank cap

Counter coupling

007-0234

### 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.

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.

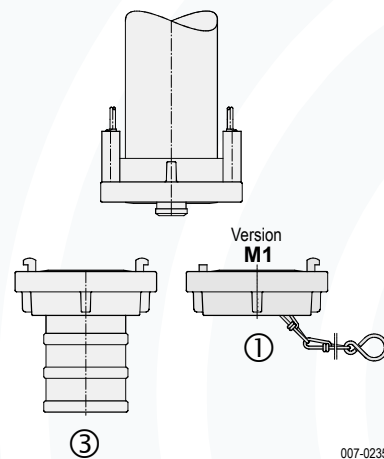
So, in this way can be identified which counter coupling has been coupled at the moment.

### 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.

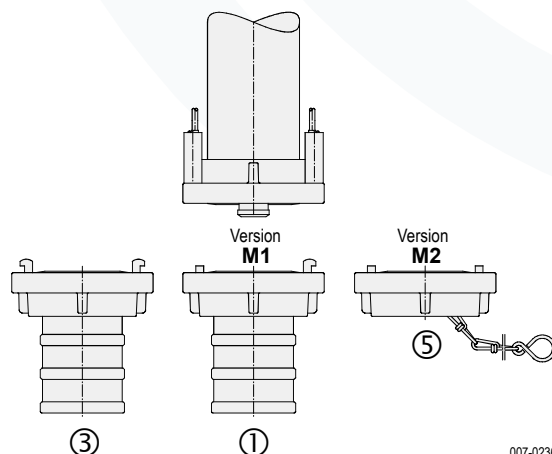


#### Silo filling process 2

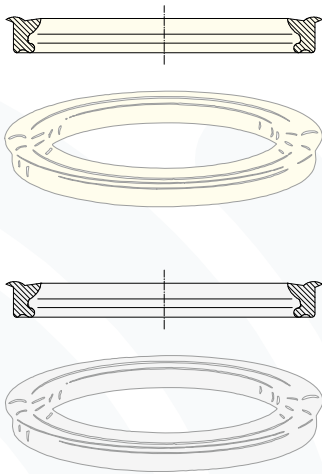
Sensing whether silo trailer ③ or coupling ① has been coupled.

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

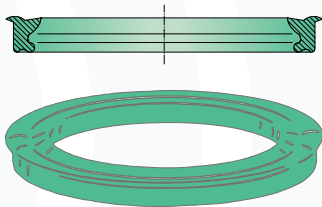


## Single parts



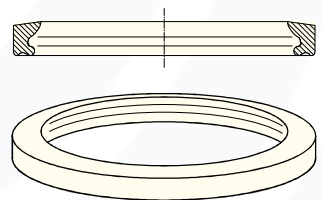
### DRK seal rings for high and low pressure operation (DS)

Size	Dimensions (mm)	NBR (white)		Silikon (transparent)	
		Article-no.	Article-no.	Article-no.	Article-no.
52 C	60x47x10,0	K-SZ052DRKDS-NBR		K-SZ052DRKDS-SIK	
65	75x60x10,0	K-SZ065DRKDS-NBR		K-SZ065DRKDS-SIK	
75 B	82x67x10,5	K-SZ075DRKDS-NBR		K-SZ075DRKDS-SIK	
90	98x93x10,0	K-SZ090DRKDS-NBR		K-SZ090DRKDS-SIK	
100	108x93x10,0	K-SZ100DRKDS-NBR		K-SZ100DRKDS-SIK	
110 A	124x102x12,0	K-SZ110DRKDS-NBR		K-SZ110DRKDS-SIK	
125	139x177x12,5	K-SZ125DRKDS-NBR		K-SZ125DRKDS-SIK	
150	152x132x11,5	K-SZ150DRKDS-NBR		K-SZ150DRKDS-SIK	
165	177x152x12,5	K-SZ165DRKDS-NBR			
205	211x187x16,0	K-SZ205DRKDS-NBR			
250	268,5x240x17	K-SZ250DRKDS-NBR	(black)		



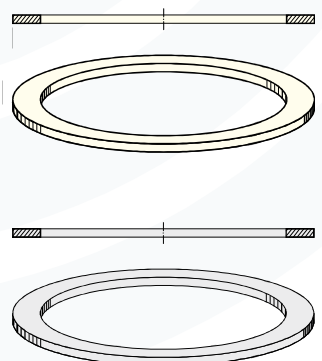
### DRK seal rings for high and low pressure operation (DS)

Size	Dimensions (mm)	VITON (green)	
		Article-no.	Article-no.
52 C	60x47x10,0	K-SZ052DRKDS-VI	
75 B	82x67x10,5	K-SZ075DRKDS-VI	
110 A	124x102x12,0	K-SZ110DRKDS-VI	
125	139x117x12,5	K-SZ125DRKDS-VI	
150	152x132x11,5	K-SZ150DRKDS-VI	



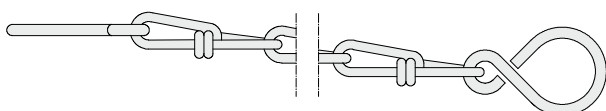
### DRK seal rings for high pressure operation (D)

Size	Dimensions (mm)	NBR (white)	
		Article-no.	Article-no.
52 C	60x47x10,5	K-SZ052DRKD-NBR	
65	75x60x10,5	K-SZ065DRKD-NBR	
75 B	82x67x10,0	K-SZ075DRKD-NBR	
100	106x93x10,5	K-SZ100DRKD-NBR	



### DRG thread flat seal rings

Size	Dimensions (mm)	NBR (white)		PTFE (white)	
		Article-no.	Article-no.	Article-no.	Article-no.
G 2	60x47x3	K-SZIG2 DRG-NBR		K-SZIG2 DRG-PT	
G 2½	76x66x3	K-SZIG2½DRG-NBR		K-SZIG2½DRG-PT	
G 3	88x78x3	K-SZIG3 DRG-NBR		K-SZIG3 DRG-PT	
G 4	113x100x3	K-SZIG4 DRG-NBR		K-SZIG4 DRG-PT	
G 4½	126x105x3	K-SZIG4½DRG-NBR		K-SZIG4½DRG-PT	
G 5	138x118x3	K-SZIG5 DRG-NBR		K-SZIG5 DRG-PT	
G 6	164x152x4	K-SZIG6 DRG-NBR		K-SZIG6 DRG-PT	



### KT knotted-link chain with S-hook

Size	Chain length	Steel, galvanized		Stainless steel V2A	
		Article-no.	Article-no.	Article-no.	Article-no.
052-090	280 mm	K-280KT-STV		K-280KT-V2A	
100-110	390 mm	K-390KT-STV		K-390KT-V2A	
125-205	535 mm	K-535KT-STV		on request	



# EU-Konformitätserklärung EU-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 2014/34/EU** (Explosionsschutz-Richtlinie)

**Directive 2014/34/EU** (Directive ATEX)

und

and

**DIN EN IEC 60079-0:2019-09,  
DIN EN 60079-31:2014-12**

**DIN EN IEC 60079-0:2019-09,  
DIN EN 60079-31:2014-12**

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 20.11.2019

Osterburken, November 20th 2019



Wolfgang Hageleit

Diese Erklärung darf nur unverändert weiterverbreitet werden.

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





# EU-Konformitätserklärung EU-Declaration of Conformity

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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 series:

**K...** (MOLOScore, MOLOSconnect, MOLOSwitch, MOLOSlock)  
aus Aluminum, Edelstahl oder Messing

**K...** (MOLOScore, MOLOSconnect, MOLOSwitch, MOLOSlock)  
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 2014/68/EU** (Druckgeräte-Richtlinie)

**Directive 2014/68/EU** (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**

Categorization:  
**Pressure-maintaining components**

Mediumeigenschaft nach Artikel 13:  
**Gruppe 1 - gefährlich**

Fluid group acc. to art. 13:  
**Group 1 - dangerous**

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

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

Angewendetes 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 2019

Osterburken, January 7th 2019



Wolfgang Hageleit

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# EU-Konformitätserklärung EU-Declaration of Conformity

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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 series:

**K...** (MOLOScode, MOLOScconnect, MOLOSwitch, MOLOSlOCK)  
aus Aluminum, Edelstahl oder Messing

**K...** (MOLOScode, MOLOScconnect, MOLOSwitch, MOLOSlOCK)  
made of aluminum, stainless steel or brass

**DN 101 bis DN 150**

**DN 101 to DN 150**

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 2014/68/EU** (Druckgeräte-Richtlinie)

**Directive 2014/68/EU** (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**

Categorization:  
**Pressure-maintaining components**

Mediumeigenschaft nach Artikel 13:  
**Gruppe 2 - andere**

Fluid group acc. to art. 13:  
**Group 2 - others**

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

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

Angewendetes 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 2019

Osterburken, January 7th 2019



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