

# Swivelling lever with limit switch

# SES | SIS

## Operating instructions

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- Read and follow these safety instructions first and take notice of the operating instructions.

## 1. Safety instructions

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

The swivelling lever has to be constantly conductible connected to the electrically conductive, earthed tubing.  
- If the tubing is not electrically conductive the swivelling lever has to be earthed.

### Type SES ...

- 1.4 A fuse (with max. 4 A) has to be connected in series to the supply voltage.
- 1.5 Protect the signal contacts of the limit switch against voltage peaks when inductive loads are connected.

### Type SIS ...

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

## Operating instruction

### 1. Specification

#### 1.1 Intended use

The swivelling lever with limit switch is for signaling that a hose coupling has been coupled at silos or tanks or coupling stations.

#### 1.2 Function

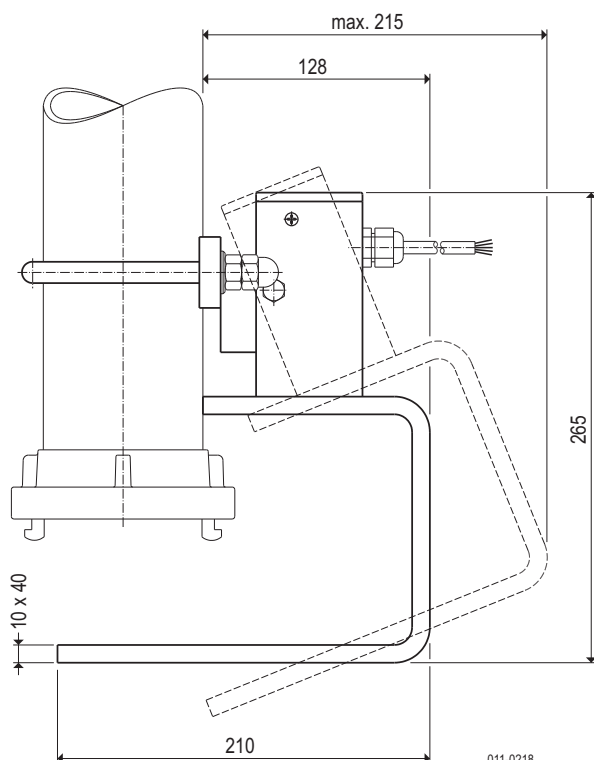
While coupling the counter coupling or hose coupling the lever is swivelling beside and the limit switch will be actuate.

#### 1.3 Technical data

<b>Manufacturer</b>	<b>MOLLET</b> <b>Füllstandtechnik GmbH</b>
<b>Address</b>	Industriepark RIO 103 74706 Osterburken
<b>Name</b>	Swivelling lever with limit switch
<b>Type</b>	<b>SES ... / SIS ...</b>
<b>Weight</b>	3 kg
<b>Nominal size</b>	<b>065</b> for tube $\varnothing$ 76.1 <b>080</b> for tube $\varnothing$ 88.9 <b>100</b> for tube $\varnothing$ 108 ... 114.3 <b>125</b> for tube $\varnothing$ 133 ... 139.7 <b>150</b> for tube $\varnothing$ 159 ... 168.3
<b>Cabel length</b>	<b>2</b> 2 meter cabel <b>5</b> 5 meter cabel <b>0</b> 10 meter cabel

<b>1.4 Materials</b>	<b>Fixing plate</b> Steel, galvanized
	<b>Swivelling lever</b> Steel, galvanized

#### 1.5 Dimensions



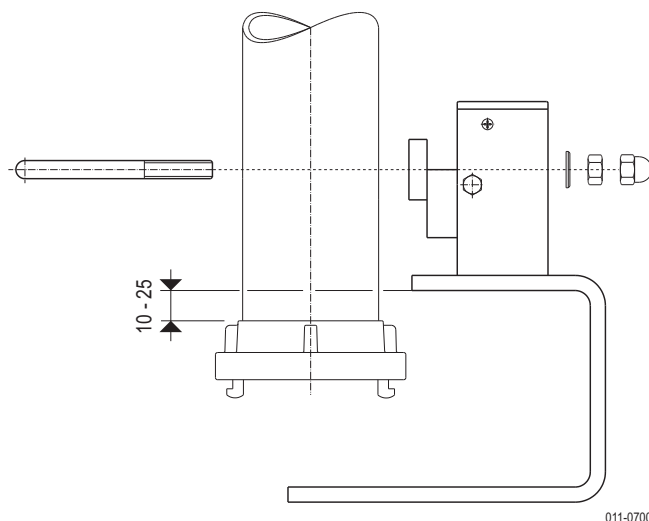
### 2. Installation

#### 2.1 Preparation

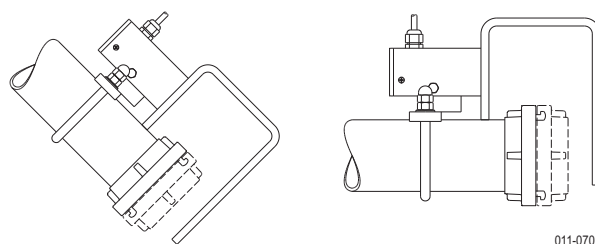
Read and follow the safety instructions and the operating instructions, before handling with the device !

#### 2.2 Mechanical conections

- Place the pipe shackle over the tube and into the borings of the fixing plate.
- Set the nuts and washers at the pipe shackle.
- Screw them tightly on.
- Align the swivelling lever as shown in the drawing below with a distance of about 10 up to maximum 25 mm to the coupling.



- Check whether the lever can be swivelled out without obstruction.
- In case of slanting or horizontal pipe always fasten to the upper side. The lever must fall into the final position shown in the drawing by virtue of its own weight.



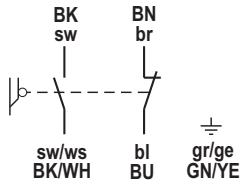
- Screw the both nuts so that the two threaded ends are about the same length.
- Now put the cap nuts on and screw them tightly.

### 2.3 Electrical connection

#### SES ... Limit switch with mechanical contact

Material	Switch	Zn-Al alloy
Switching voltage		10 ... 250 V AC or DC
Switching function		1 NC + 1 NO
Capacity of the contact		max. 1.5 A / 250 V AC
Ambient temperature		-25 °C ... +70 °C
Type of protection		IP67 acc. DIN EN 60529

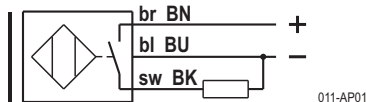
#### Connection diagram



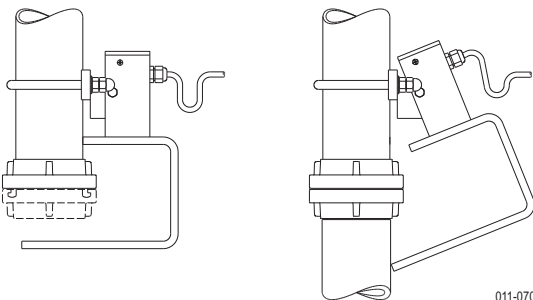
#### SIS ... Inductive proximity switch

Material	Switch	CuZn chromium plated
	active surface	PA12-GF30
Supply voltage		10 ... 30 V DC
Switching function		PNP, Normally Open (NO)
Load current capacity		≤ 200 mA, constant current
Ambient temperature		-20 °C ... +60 °C
Type of protection		IP68 acc. DIN EN 60529

#### Connection diagram



Lay a loop at the swivelling lever to compensate the swivelling movement.



### 3. Utilization

#### 3.1 Commissioning

Put the swivelling lever into operation only, if the installation and the electrical connection have been done correctly.

#### 3.2 Normal operation

- Use the swivelling lever in its intended application only.
- Comply with the specifications on the data plate.

#### 3.3 Inexpert handling

- Ignoring the safety instructions and the operating instructions.
- Not intended use.
- Mounting of spare parts which are no original parts.
- Violation against applicable law and standards.

### 4. Maintenance and Servicing

#### 4.1 Maintenance

Inspect the swivelling lever about cleanness and smooth engagement in regular intervals. Define the intervals of the control depending on the ambient conditions and the frequency of use.

#### 4.2 Servicing

- Carry out repairs only when the swivelling lever is disconnected from the electrical supply before.
- Damaged parts have immediately replaced with similar.
- Until the complete restoration of the proper function the swivelling lever must not be used any more.
- Use original spare parts only.

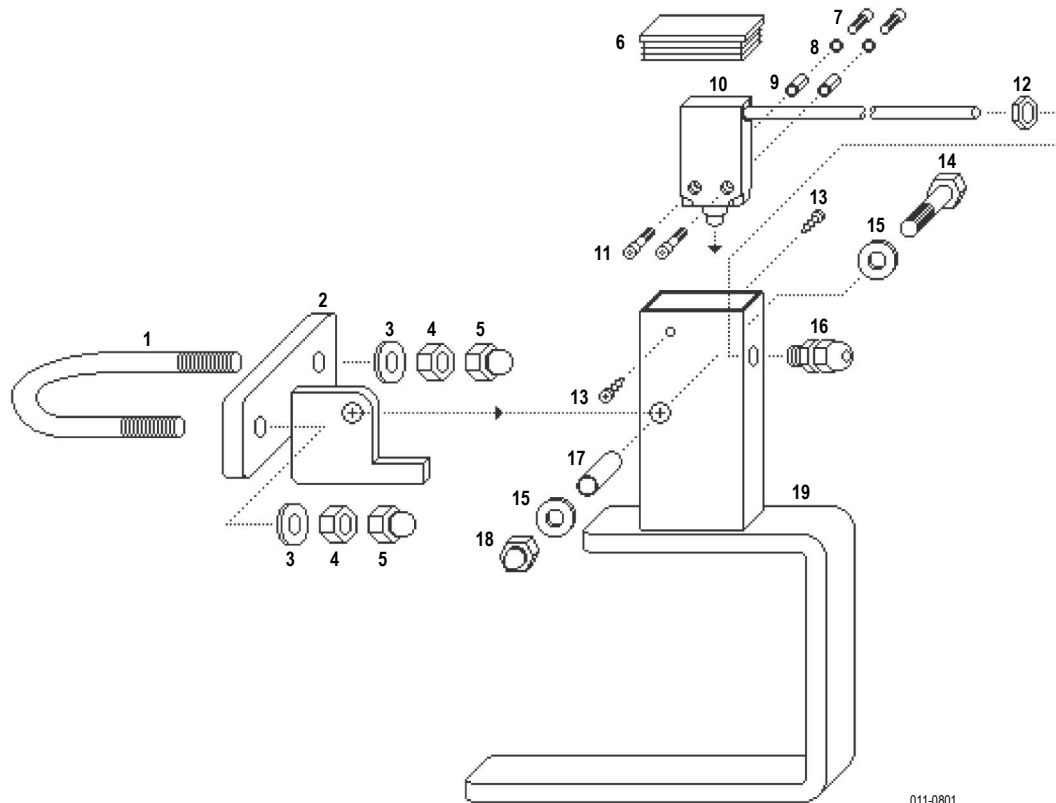
### 5. Storage

- Store the swivelling lever dry and dust-free.

### 6. Disposal

- The swivelling lever can be recycled.
- The disposal applies to the valid environmental guidelines according to the location of the carrier and the local manufacturing conditions.

## Single parts



011-0801

Item	Pcs.	Reference	Order code	for size
1	1	Round steel shackle	3570-065-A0-STV	065
	1	Round steel shackle	3570-080-A0-STV	080
	1	Round steel shackle	3570-100-A0-STV	100
	1	Round steel shackle	3570-125-A0-STV	125
	1	Round steel shackle	3570-150-A0-STV	150
2	1	Fixing plate	SES-H065	065
	1	Fixing plate	SES-H080	080
	1	Fixing plate	SES-H100	100
	1	Fixing plate	SES-H125	125
	1	Fixing plate	SES-H150	150
3	2	Washer	0125-12-B00-STV	065 + 080
	2	Washer	0125-16-B00-STV	100 + 125 + 150
4	2	Hexagonal nut	0934-12-000-STV	065 + 080
	2	Hexagonal nut	0934-16-000-STV	100 + 125 + 150
5	2	Hexagon cap nut	0986-12-000-STV	065 + 080
	2	Hexagon cap nut	0986-16-000-STV	100 + 125 + 150
6	1	Plug	64286-IF-KST	
7	2	Cylinder head screw	0912-04X008-STV	
8	2	Snap ring	0127-04-B00-V2A	
9	2	Hexagonal nut	0000-04X010-STV	
10	1	E - Limit switch .....		
	1	I - Limit switch .....		
	1	N - Limit switch .....		
11	2	Cylinder head screw	0912-04X012-STV	
12	1	Hexagonal nut	50.216-PA-JK	
13	2	ABC Spax screw	0ABC-04X015-STV	
14	1	Hexagon head screw	0931-08X040-STV	
15	2	Washer	0125-08-B00-STV	
16	1	Screwed cable gland	50.616-PA-JK	
17	1	Bearing sleeve	SES-R030	
18	1	Hexagon cap nut	0986-08-000-STV	
19	1	Swivelling lever	SES-S002	

### Order code

Cable length 2 m	Cable length 5 m	Cable length 10 m
KE-XCM-A110-2	KE-XCM-A110-5	KE-XCM-A110-0
KI-XCM-3019-5-2	KI-XCM-3019-5-5	KI-XCM-3019-5-0
KN-XCM-NJ4K-5-2	KN-XCM-NJ4K-5-5	KN-XCM-NJ4K-5-0

# EU-Konformitätserklärung EU-Declaration of Conformity

Wir/We

**MOLLET Füllstandtechnik GmbH**

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erklären hiermit, dass die Geräte:

declare that the devices:

**Silo-Überfüllsicherung (silo-safe-system)**  
mit den elektrischen Betriebsmitteln:

**Silo overfill monitoring system (silo-safe-system)**  
with the electrical equipment:

**S-EST ... (elektr. Steuerungen),  
SFA- ..., DF2 ..., HPW ..., HLD ..., MSD-070,  
MSD-A. ..., SEI- ..., SES- ..., SIS- ..., SNS- ...**

**S-EST ... (electrical controller),  
SFA- ..., DF2 ..., HPW ..., HLD ..., MSD-070,  
MSD-A. ..., SEI- ..., SES- ..., SIS- ..., SNS- ...**

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 2014/35/EU** (NSR-Richtlinie)  
**Richtlinie 2014/30/EU** (EMV-Richtlinie)

**Directive 2014/35/EU** (Directive LVD)  
**Directive 2014/30/EU** (Directive EMC)

und

**DIN EN 61010-1:2011, DIN EN 60529:2014  
DIN EN 61326-1:2013**

and

**DIN EN 61010-1:2011, DIN EN 60529:2014  
DIN EN 61326-1:2013**

Die grundlegenden Sicherheits- und Gesundheitsanforderungen werden erfüllt gemäß den Bestimmungen der Richtlinien und durch Einhaltung der Normen soweit es im Rahmen des Lieferumfangs 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 2020

Osterburken, January 7th 2020



Wolfgang Hageleit

Diese Erklärung darf nur unverändert  
weiterverbreitet werden.

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