

Swivelling lever with limit switch



Operating instructions

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



1. Safety instructions Gas and Dust 

For the application of limit switches in explosive hazardous areas

- 1.1 The installation, initial operation and maintenance may be done by a qualified expert with electrical know-how only and has to be supervised resp. controlled by an “authorized person” for explosion protection.
- 1.2 Comply with the local and statutory rules and regulations and/or the VDE 0100.
- 1.3 To keep the intrinsically reliability a certified barrier or a certified isolation amplifier with an intrinsically safe circuit according to the present category and after the specify of the switch manufacturer has to be connected in series for power limitation.
- 1.4 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.
- 1.5 Take notice of 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.
- 1.6 The swivelling lever with limit switches can be used in areas classified as zone 1 and zone 21 or lower.



1.7 Temperatures

	SNS
Ambient temperature	-20 °C ... +60 °C
Temperature class / maximum surface temperature	T6 / T 67 °C

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

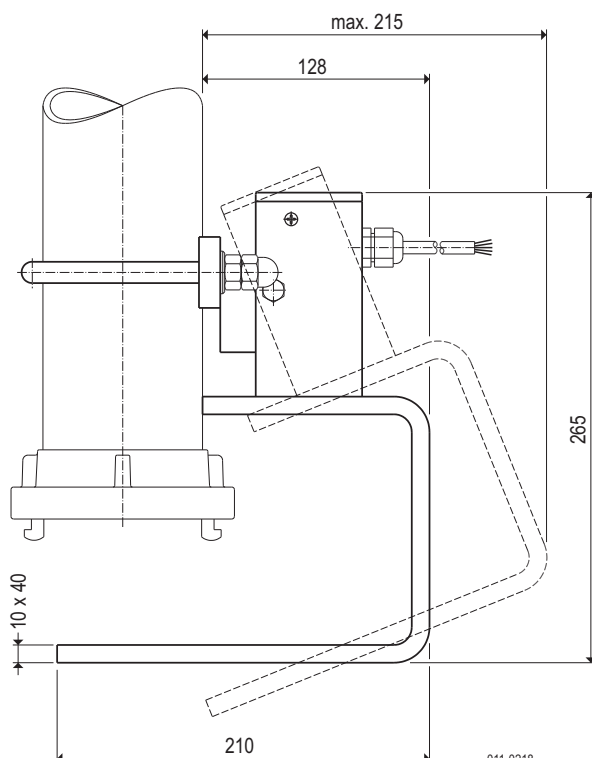
While coupling the counter coupling or hose coupling the lever is swivelling beside and the limit switch will be actuate.

1.3 Technical data

Manufacturer	MOLLET Füllstandtechnik GmbH
Address	Industriepark RIO 103 74706 Osterburken
Name	Swivelling lever with limit switch
Type	SNS ... B6
Weight	3 kg
Nominal size	065 for tube \varnothing 76.1 080 for tube \varnothing 88.9 100 for tube \varnothing 108 ... 114.3 125 for tube \varnothing 133 ... 139.7 150 for tube \varnothing 159 ... 168.3
Cabel length	2 2 meter cabel 5 5 meter cabel 0 10 meter cabel

1.4 Materials	Fixing plate Steel, galvanized
	Swivelling lever Steel, galvanized

1.5 Dimensions



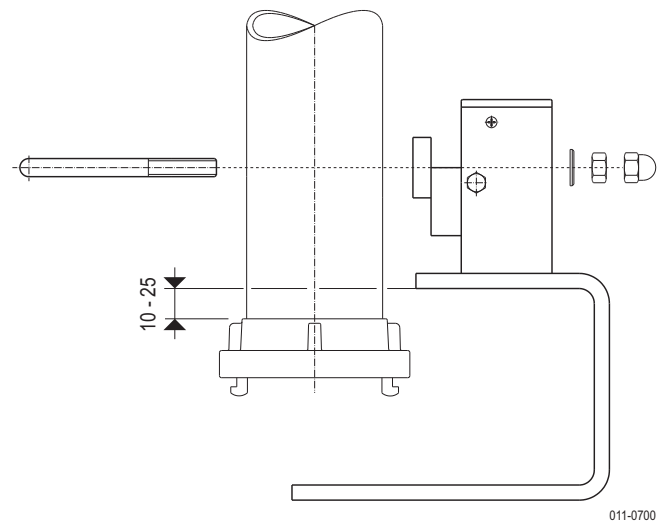
2. Installation

2.1 Preparation

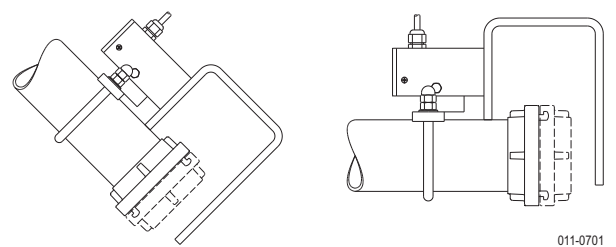
Read and follow the safety instructions and the operating instructions, before handling with the device !

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.



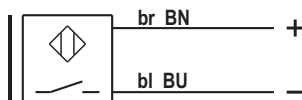
- Screw the both nuts so that the two threaded ends are about the same length.
- Now put the cap nuts on and screw them tightly.

2.3 Electrical connection

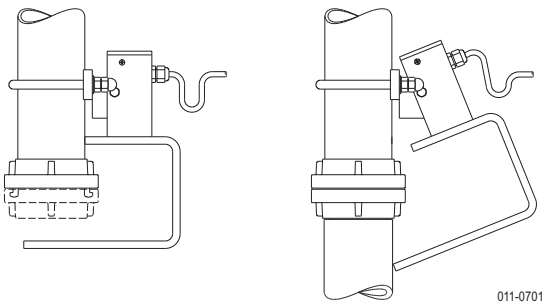
SNS - Inductive proximity switch NAMUR

Material	Switch	PBTP (Polybutylenterephthalat)
Supply voltage		8 V DC
Switching function		Normally Open (NO)
Ambient temperature		-20 °C ... +60 °C
Type of protection		IP68 acc. DIN EN 60529
Ex type of protection	B6	 II 2G EEx ia IIC T6 and  II 2D Ex iaD 21 T 67 °C

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.

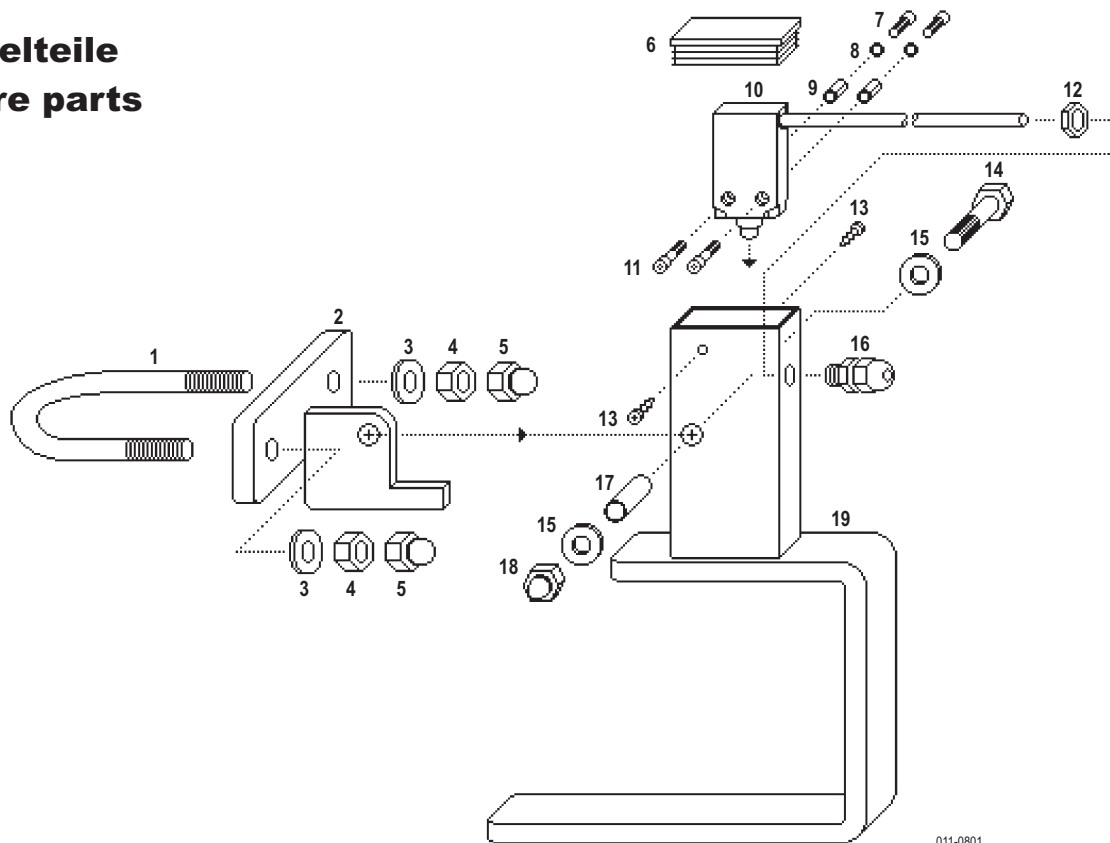
6. Disposal

- 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.



Einzelteile

Spare parts



011-0801

Pos. Item	St. Pcs.	Benennung Reference	Bestellcode Order code	Größe for size
1	1	Rundstahlbügel / Round steel shackle	3570-065-A0-STV	065
	1	Rundstahlbügel / Round steel shackle	3570-080-A0-STV	080
	1	Rundstahlbügel / Round steel shackle	3570-100-A0-STV	100
	1	Rundstahlbügel / Round steel shackle	3570-125-A0-STV	125
	1	Rundstahlbügel / Round steel shackle	3570-150-A0-STV	150
2	1	Halterung / Fixing plate	SES-H065	065
	1	Halterung / Fixing plate	SES-H080	080
	1	Halterung / Fixing plate	SES-H100	100
	1	Halterung / Fixing plate	SES-H125	125
	1	Halterung / Fixing plate	SES-H150	150
3	2	Scheibe / Washer	0125-12-B00-STV	065 + 080
	2	Scheibe / Washer	0125-16-B00-STV	100 + 125 + 150
4	2	Sechskant-Mutter / Hexagonal nut	0934-12-000-STV	065 + 080
	2	Sechskant-Mutter / Hexagonal nut	0934-16-000-STV	100 + 125 + 150
5	2	Sechskant-Hutmutter / Hexagon cap nut	0986-12-000-STV	065 + 080
	2	Sechskant-Hutmutter / Hexagon cap nut	0986-16-000-STV	100 + 125 + 150
6	1	Stopfen / Plug	64286-IF-KST	
7	2	Zylinderschraube / Cylinder head screw	0912-04X008-STV	
8	2	Federring / Snap ring	0127-04-B00-V2A	
9	2	Sechskant-Mutter / Hexagonal nut	0000-04X010-STV	
10	1	E-Endschalter / Limit switch	KE-XCM-A110-2	KE-XCM-A110-5 KE-XCM-A110-0
	1	I-Endschalter / Limit switch	KI-XCM-3019-5-2	KI-XCM-3019-5-5 KI-XCM-3019-5-0
	1	N-Endschalter / Limit switch	KN-XCM-NJ4K-5-2	KN-XCM-NJ4K-5-5 KN-XCM-NJ4K-5-0
11	2	Zylinderschraube / Cylinder head screw	0912-04X012-STV	
12	1	Sechskant-Mutter / Hexagonal nut	50.216-PA-JK	
13	2	ABC-Spax-S / ABC Spax screw	0ABC-04X015-STV	
14	1	Sechskant-Schraube / Hexagon head screw	0931-08X040-STV	
15	2	Scheibe / Washer	0125-08-B00-STV	
16	1	Kabelverschraubung / Screwed cable gland	50.616-PA-JK	
17	1	Lagerhülse / Bearing sleeve	SES-R030	
18	1	Sechskant Hutmutter / Hexagon cap nut	0986-08-000-STV	
19	1	Schwenkhebel / Swivelling lever	SES-S002	



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:

Schwenkhebel-Endschalter (Positionsschalter)

Limit switch

Typ **SNS-...-B6**

Type **SNS-...-B6**

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)
Richtlinie 2004/108/EG (EMV-Richtlinie)

Directive 94/9/EC (Directive ATEX)
Directive 2004/108/EC (Directive EMC)

und

and

EN 13463-1:2009,
DIN EN 50014:1997, DIN EN 50020:1994,
prEN 61241-0:2002, 31H/CD (IEC 61241-11):2002

EN 13463-1:2009,
DIN EN 50014:1997, DIN EN 50020:1994,
prEN 61241-0:2002, 31H/CD (IEC 61241-11):2002

EN 55022, EN 55024

EN 55022, EN 55024

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:

 **II 2G EEx ia IIC T6**

EG-Baumusterprüfbescheinigungsnummer

PTB00ATEX2048

EC-type-examination Certificate Number

 **II 2D Ex iaD 21 T... °C**

EG-Baumusterprüfbescheinigungsnummer

ZELM03ATEX0128X

EC-type-examination Certificate Number

-20 °C ≤ T_a ≤ +60 °C

Prüfprotokollnummer für den nicht-elektrischen Teil

ATEX-PP-03-904X

Test report number for the non-electrical part

Osterburken, den 15.06.2010

Osterburken, June 15th 2010




Wolfgang Hageleit

Diese Erklärung darf nur unverändert weiterverbreitet werden.

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