

Overview and Selection Guide		Page
<a href="#">Installation</a>		2
<a href="#">Information for electrical connection</a>		3

Type	old version	Function	Media Temp.	Electric Data	Remarks	Page
<a href="#">37557</a>		SPST	-50°C...+150°C	100V/0.5A/10VA/10W	for low voltage (Mini)	4
<a href="#">37589</a>		SPST	-50°C...+150°C	100V/0.5A/10VA/10W	for low voltage, with plug (Mini)	5
<a href="#">31130-NN</a>	33130-N 27159	SPST	-50°C...+150°C	250V/1.3A/80VA/80W	Standard	6
<a href="#">31160-NN</a>	33160 27169	SPDT	-50°C...+150°C	230V/1A/60VA/60W	Standard	7
<a href="#">31130-NW</a>	33130-W 31130-W	SPST	-50°C...+350°C	250V/1.3A/80VA/80W	for high media temperature	8
<a href="#">31160-NW</a>		SPDT	-50°C...+350°C	230V/1A/60VA/60W	for high media temperature	9
<a href="#">31130-NA</a>	33130-N/AB 31130-N/AB	SPST	-50°C...+150°C	250V/1.3A/80VA/80W	with shielded cable	10
<a href="#">31160-NA</a>	33160/AB 31160/AB	SPDT	-50°C...+150°C	230V/1A/60VA/60W	with shielded cable	11
<a href="#">31130-NK</a>	33130/KST 31130/KST	SPST	-50°C...+150°C	250V/1.3A/80VA/80W	with plug connector	12
<a href="#">31160-NK</a>	33160/KST 31160/KST	SPDT	-50°C...+150°C	230V/1A/60VA/60W	with plug connector	13
<a href="#">31130-NT</a>		SPST	-50°C...+150°C	250V/1.3A/80VA/80W	with terminal box	14
<a href="#">31160-NT</a>		SPDT	-50°C...+150°C	230V/1A/60VA/60W	with terminal box	15
<a href="#">31130-NB</a>		SPST	-50°C...+300°C	250V/1.3A/80VA/80W	with terminal box, for high media temp.	16
<a href="#">31160-NB</a>		SPDT	-50°C...+300°C	230V/1A/60VA/60W	with terminal box, for high media temp.	17
<a href="#">31130-NI</a>	32298	SPST	-50°C...+150°C	250V/1.3A/80VA/80W	II 2GD T85°C Ex ia IIC T6	18
<a href="#">31160-NI</a>	32299	SPDT	-50°C...+150°C	230V/1A/60VA/60W	ZELM 03 ATEX 0156	19
<a href="#">31130-ND</a>	29432 27059	SPST	-50°C...+150°C	250V/1.3A/80VA/80W	II 2GD T85°C Ex d IIC T6	20
<a href="#">31160-ND</a>	29436 27069	SPDT	-50°C...+150°C	230V/1A/60VA/60W	ZELM 03 ATEX 0190	21
<a href="#">31130-NM</a>	31130-N	SPST	-50°C...+150°C	250V/1.3A/80VA/80W	with brass cable gland	22
<a href="#">31160-NM</a>	31160	SPDT	-50°C...+150°C	230V/1A/60VA/60W	with brass cable gland	23
<a href="#">31130-NS</a>		SPST	-50°C...+150°C	250V/1.3A/80VA/80W	with ss-cable gland	24
<a href="#">31160-NS</a>		SPDT	-50°C...+150°C	230V/1A/60VA/60W	with ss-cable gland	25
<a href="#">31130-NA-NAM</a>		SPST	-50°C...+150°C	10,6V/60mA/200mW	with NAMUR circuit	26
<a href="#">31130-NW-NAM</a>		SPST	-50°C...+250°C	10,6V/60mA/200mW	with Namur for high media temp.	27

### Type code

#### Switch Function

SPST

SPDT

#### Version

ss-switch with metric cable gland

#### Execution

standard with PA cable gland

with ss-cable gland

with brass cable gland

flameproof enclosures

intrinsically safe

with plug connector

with terminal box

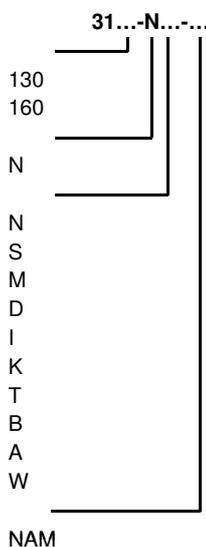
with terminal box and for high medium temp.

with shielded cable

for high media temperature

#### Speciality

with NAMUR circuit



SPST - Single Pole / Single Trace

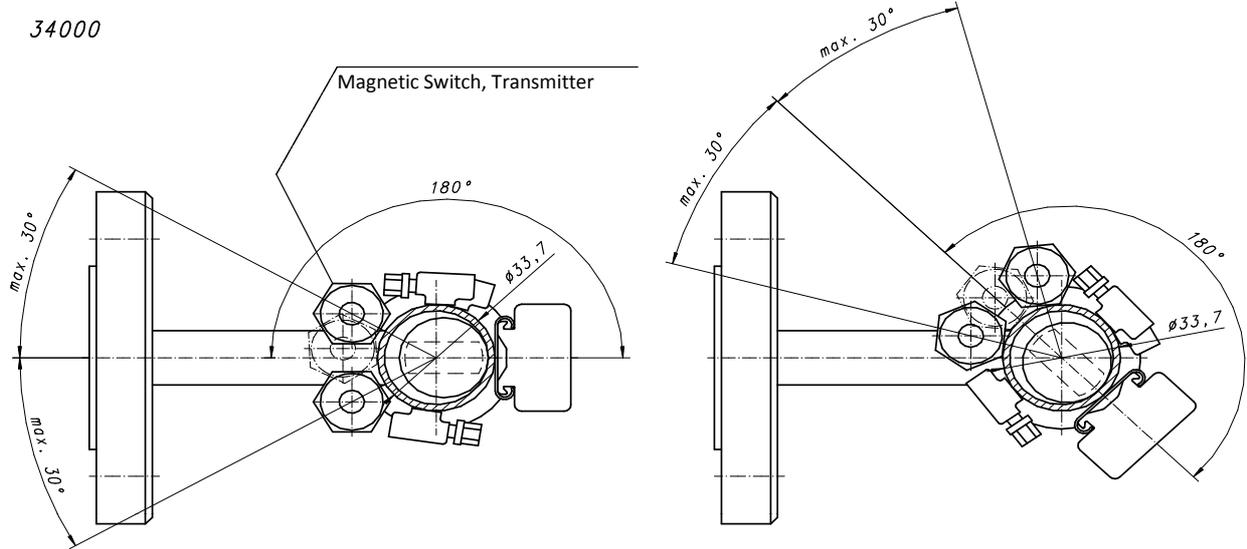
SPDT - Single Pole / Double Trace

**Mounting**

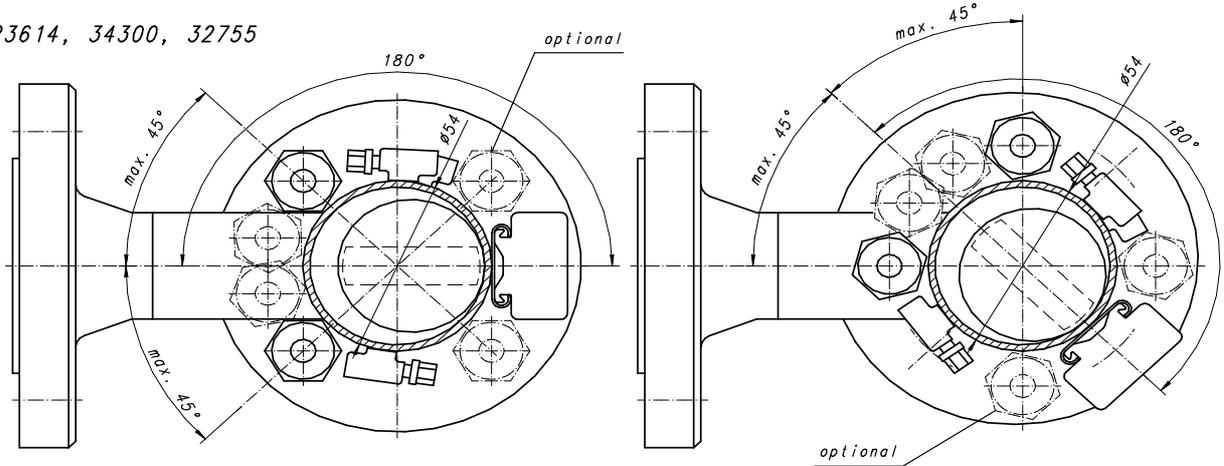
**Normal:** Valid is the indicated switching function on the type label (float below switch).  
 Installation 180 °C opposite of the indication rail with the permitted tolerance according to the tube diameter (refer to layout below)  
 Cable exit downwards

**Variation:** Each of the following variations lead to a reversion of the indicated switching logic  
**Mounting with cable exit upwards**  
**Mounting adjacent to the indication rail**

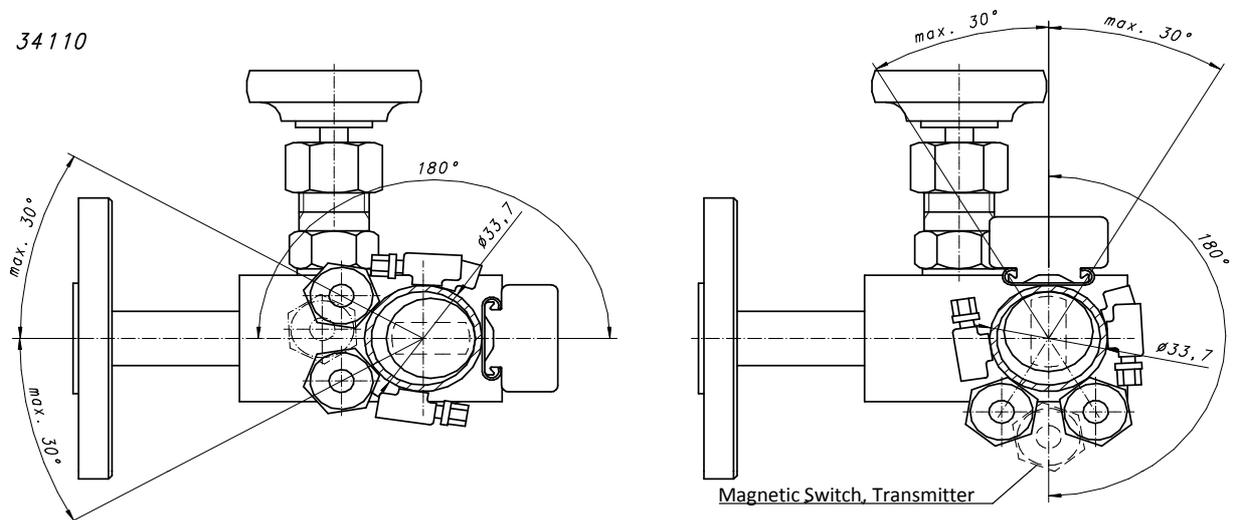
34000



23614, 34300, 32755



34110



**Caution:**

Read this information before installing the magnetic level indicator including magnetic switches. The use of magnetic switches with inappropriate contact ratings can result in damage to the switches and malfunctioning of the level indicator.

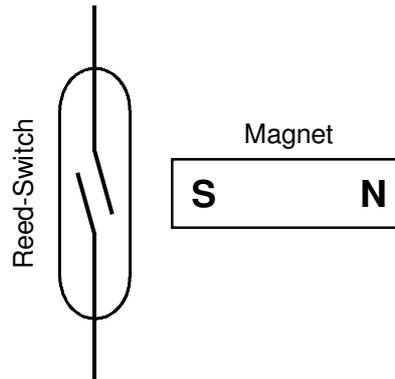
For Ex rated magnetic switches (-NI / -ND) it is necessary to adhere to the specified limit values of electrical parameters of the circuit.

**Construction:**

The key element of a Weka magnetic switch module is a reed switch. It consists of two pieces of special flattened wire (the reeds or "paddles") which are hermetically sealed in a glass capsule. The reed switch is actuated by the magnetic field of the float inside the float chamber. The glass capsule is filled with a protective gas that ensures highest electrical life expectancy of millions of switching cycles.

**Contact rating (resistive loads):**

	Type	Contact rating
on / off switches	31130 -NN	max. 250V max. 1.3A max. 80VA max. 80W
	31130 -NW	
	31130 -NA	
	31130 -NK	
	31130 -NT	
	31130 -NB	
	31130 -NI	
	31130 -ND	
	31130 -NM	
	31130 -NS	
Changeover switches	31160 -NN	max. 230V max. 1A max. 60VA max. 60W
	31160 -NW	
	31160 -NA	
	31160 -NK	
	31160 -NT	
	31160 -NB	
	31160 -NI	
	31160 -ND	
	31160 -NM	
	31160 -NS	



These values apply only for resistive loads. For inductive loads, see below.

**Note:**  
None of the specified values are to be exceeded.

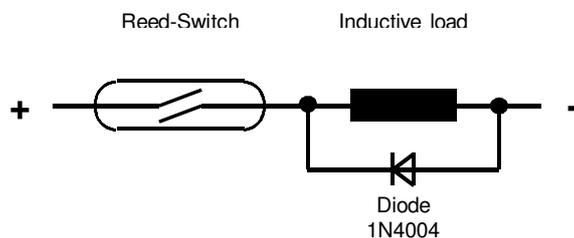
**Caution:**

For many resistive load applications, the electrical circuit can have inductivity and/or capacitance. Voltage spikes of 6 to 7 times the normal value can occur when switching off inductive loads. This can result in the contacts getting welded together subsequently destroying the switch.

Examples of inductive loads are transformers, solenoid operated devices (valves, contactors), some types of wound-filament lamps, etc.

**Protection of magnetic switches used with inductive loads:**

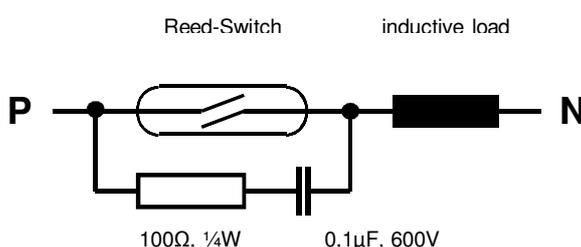
**Figure 1 (D.C.)**



**For D.C. applications:**

A diode connected parallel to the load coil short-circuits the reverse voltage spike that occurs, when the supply is switched off, thus protecting the switch contacts.

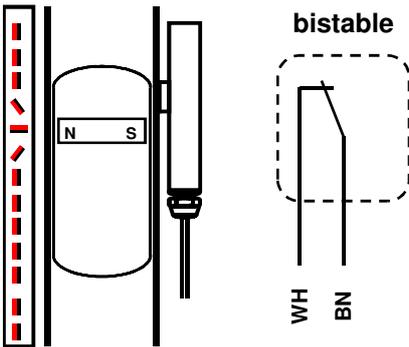
**Figure 2 (A.C.)**



**For A.C. applications:**

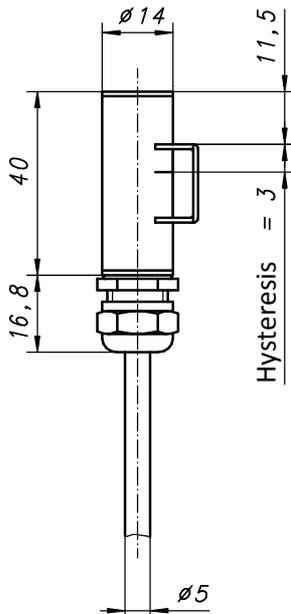
A resistor and capacitor in series connected parallel to the switch forms a high impedance path at normal A.C. frequencies. This impedance turns low at high frequencies, diverting spike currents from the switch.

**External electrical connections**



- Installed opposite to indication rail
- Cable exit downwards

**Dimensions**



**Function**

**Magnetic switch for WEKA Visual Level Indicators**

The magnetic switch is mounted outside of the float chamber opposite to the indication rail. The switching logic can be reversed by inverting the switch module with cable-exit upwards or by installing the switch module adjacent to the indication rail where technically authorised (see datasheet 20010501). The magnet inside the float activates the reed switch, when the liquid in the float chamber reaches that level.

Please refer to the safety guidelines.

<b>Product code</b>	<b>(standard)</b> 37557/3	<b>with 3m cable</b>
	37557/5	<b>with 5m cable</b>
	37557/10	<b>with 10m cable</b>
	37557/20	<b>with 20m cable</b>

**Function**

**on/off, bistable**

**Contact rating**

max.	100V
max.	0.5A
max.	10VA
max.	10W

**On/off switch, bistable**

Rhodium

**Activation speed**

ca. 5ms

**Bouncing time**

ca. 0.5ms

**Enclosure**

IP68 - 5bar (EN 60529)

**Material**

Housing	Stainless steel 316 /316L
Cable gland	Brass: nickel-plated, 3...6mm
Seal	Neoprene (CR), Perbunan (NBR)
Cable	LiYY: grey, Ø 5.2mm
Shield	not shielded
Cable cores	2 x 0,50mm <sup>2</sup>
Core colours	WH, BN
Type label	Polyester: silver, black printing

**Operating conditions**

Media temperature	Ambient temperature
-50 °C...+150 °C	-20 °C...+80 °C

Media temperature  
 Ambient temperature

Temperature of liquid within the float chamber  
 Temperature of air around the magnetic switch

**Fixation**

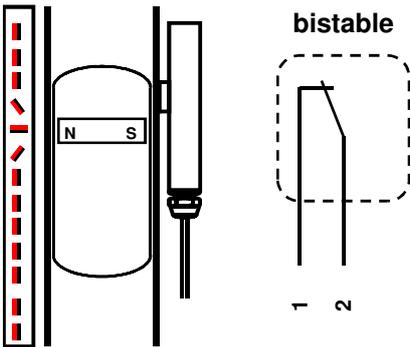
When ordering level indicators with switches, hose clamps are included.  
 When ordering switches as spare parts, hose clamps are never included and must be ordered separately.  
 In case of ordering hose clamps pipe size must be indicated:

For pipe diameter	30...40mm	Article no.	80648
For pipe diameter	40...57mm and 57...80mm	Article no.	84043

**Note**

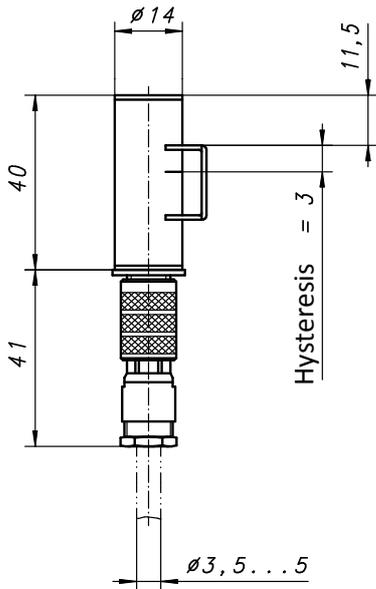
This magnetic switch is especially developed for operation with low power, such as control lines, serial-parallel-serial memory etc. Excessive load can destroy the switch! Under special conditions it possibly can also be used if only very limited space is available.  
 The switch is maintenance free.

**External electrical connections**



- Installed opposite to indication rail
- Cable exit downwards

**Dimensions**



**Function**

**Magnetic switch for WEKA Visual Level Indicators**

The magnetic switch is mounted outside of the float chamber opposite to the indication rail. The switching logic can be reversed by inverting the switch module with cable-exit upwards or by installing the switch module adjacent to the indication rail where technically authorised (see datasheet 20010501). The magnet inside the float activates the reed switch, when the liquid in the float chamber reaches that level.

Please refer to the safety guidelines.

**Product code**

**37589**

**(with counter plug, without cable)**

**Switching logic**

**on/off, bistable**

**Contact rating**

max. 100V  
 max. 0.5A  
 max. 10VA  
 max. 10W

**Contact material**

Rhodium

**Activation speed**

ca. 5ms

**Bouncing time**

ca. 0.5ms

**Enclosure**

IP65 - plugged and locked (EN 60529)

**Material**

Housing: Stainless steel 316 /316L  
 Plug connector: Brass: nickel-plated  
 Seal: PA66 (UL 94 HB)  
 Insert: 2-pole, Ni + 0.8µm Au  
 Connection: Solder-terminal  
 Cable cores: max. 0.25mm<sup>2</sup> / AWG 24  
 Cable diameter: 3.5...5mm  
 Type label: Polyester: blue, black printing

**Operating conditions**

Media temperature	Ambient temperature
-50°C...+150°C	-20°C...+80°C

Media temperature

Temperature of liquid within the float chamber

Ambient temperature

Temperature of air around the magnetic switch

**Fixation**

When ordering level indicators with switches, hose clamps are included.

When ordering switches as spare parts, hose clamps are never included and must be ordered separately.

In case of ordering hose clamps pipe size must be indicated:

For pipe diameter 30...40mm Article no. 80648

For pipe diameter 40...57mm and 57...80mm Article no. 84043

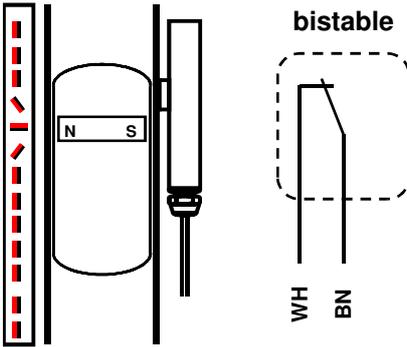
**Note**

This magnetic switch is especially developed for operation with low power, such as control lines, serial-parallel-serial memory etc. Excessive load can destroy the switch!

Under special conditions it possibly can also be used if only very limited space is available.

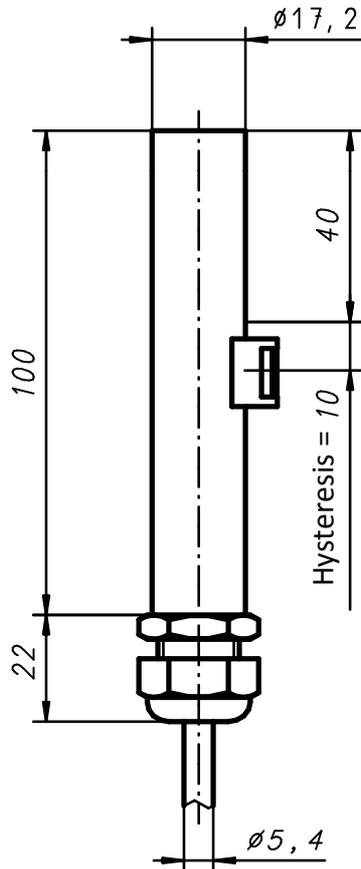
The switch is maintenance free.

**External electrical connections**



- Installed opposite to indication rail
- Cable exit downwards

**Dimensions**



**Function**

**Magnetic switch for WEKA Visual Level Indicators**

The magnetic switch is mounted outside of the float chamber opposite to the indication rail. The switching logic can be reversed by inverting the switch module with cable-exit upwards or by installing the switch module adjacent to the indication rail where technically authorised (see datasheet 20010501). The magnet inside the float activates the reed switch, when the liquid in the float chamber reaches that level.

Please refer to the safety guidelines.

<b>Product code</b>	<b>(standard)</b> 31130-NN/3	<b>with 3m cable</b>
	31130-NN/5	<b>with 5m cable</b>
	31130-NN/10	<b>with 10m cable</b>
	31130-NN/20	<b>with 20m cable</b>

**Switching logic**

**on/off, bistable**

**Contact rating**

max.	250V
max.	1.3A
max.	80VA
max.	80W

**Enclosure**

IP68 - 5bar (EN 60529)

**Material**

Housing	Stainless steel 316 /316L
Cable gland	PA6: grey, 3...8mm
Insert	Perbunan (NBR)
Cable	LiYY: grey, $\phi$ 5.4mm
Shield	not shielded
Cable cores	2 x 0,75mm <sup>2</sup>
Core colours	WH, BN
Type label	Polyester: silver, black printing

**Operating conditions**

Media temperature	Ambient temperature
-50 °C...+150 °C	-20 °C...+80 °C

Media temperature  
 Ambient temperature

Temperature of liquid within the float chamber  
 Temperature of air around the magnetic switch

**Fixation**

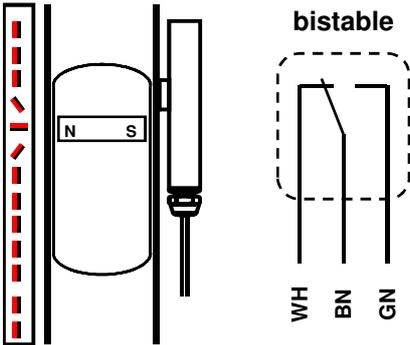
When ordering level indicators with switches, hose clamps are included.  
 When ordering switches as spare parts, hose clamps are never included and must be ordered separately.  
 In case of ordering hose clamps pipe size must be indicated:

For pipe diameter	30...40mm	Article no.	80648
For pipe diameter	40...57mm and 57...80mm	Article no.	84043

**Note**

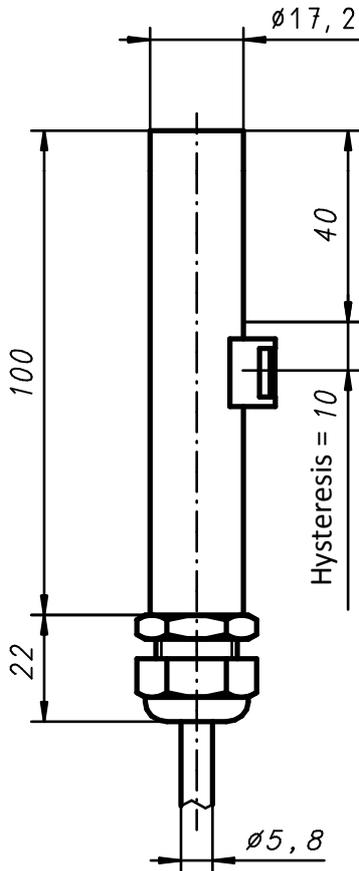
The switch is maintenance free.

**External electrical connections**



- Installed opposite to indication rail
- Cable exit downwards

**Dimensions**



**Function**

**Magnetic switch for WEKA Visual Level Indicators**

The magnetic switch is mounted outside of the float chamber opposite to the indication rail. The switching logic can be reversed by inverting the switch module with cable-exit upwards or by installing the switch module adjacent to the indication rail where technically authorised (see datasheet 20010501). The magnet inside the float activates the reed switch, when the liquid in the float chamber reaches that level.

Please refer to the safety guidelines.

<b>Product code</b>	<b>(standard)</b> 31160-NN/3	<b>with 3m cable</b>
	31160-NN/5	<b>with 5m cable</b>
	31160-NN/10	<b>with 10m cable</b>
	31160-NN/20	<b>with 20m cable</b>

**Switching logic**

**Change-over, bistable**

**Contact rating**

max.	230V
max.	1A
max.	60VA
max.	60W

**Enclosure**

IP68 - 5bar (EN 60529)

**Material**

Housing	Stainless steel 316 /316L
Cable gland	PA6: grey, 3...8mm
Seal	Perbunan (NBR)
Cable	LiYY: grey, $\phi$ 5.8mm
Shield	not shielded
Cable cores	3 x 0,75mm <sup>2</sup>
Core colours	WH, BN, GN
Type label	Polyester: silver, black printing

**Operating conditions**

Media temperature	Ambient temperature
-50 °C...+150 °C	-20 °C...+80 °C

Media temperature  
Ambient temperature

Temperature of liquid within the float chamber  
Temperature of air around the magnetic switch

**Fixation**

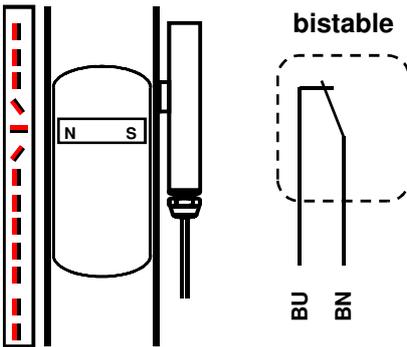
When ordering level indicators with switches, hose clamps are included.  
 When ordering switches as spare parts, hose clamps are never included and must be ordered separately.  
 In case of ordering hose clamps pipe size must be indicated:

For pipe diameter	30...40mm	Article no.	80648
For pipe diameter	40...57mm and 57...80mm	Article no.	84043

**Note**

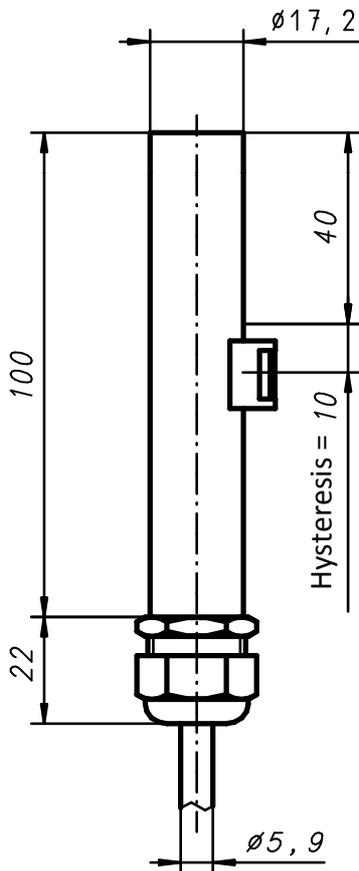
The switch is maintenance free.

**External electrical connections**



- Installed opposite to indication rail
- Cable exit downwards

**Dimensions**



**Function**

**Magnetic switch for WEKA Visual Level Indicators**

The magnetic switch is mounted outside of the float chamber opposite to the indication rail. The switching logic can be reversed by inverting the switch module with cable-exit upwards or by installing the switch module adjacent to the indication rail where technically authorised (see datasheet 20010501). The magnet inside the float activates the reed switch, when the liquid in the float chamber reaches that level.

Please refer to the safety guidelines.

<b>Product code</b>	<b>(standard)</b> 31130-NW/3	<b>with 3m cable</b>
	31130-NW/5	<b>with 5m cable</b>
	31130-NW/10	<b>with 10m cable</b>
	31130-NW/20	<b>with 20m cable</b>

**Switching logic**

**on/off, bistable**

**Contact rating**

max.	250V
max.	1.3A
max.	80VA
max.	80W

**Enclosure**

IP68 - 5bar (EN 60529)

**Material**

Housing	Stainless steel 316 /316L
Cable gland	Brass: nickel-plated, 4...8mm
Seal	Fluoroelastomere (FKM)
Cable	Silicone: Si-SL-O, red, Ø 5.9mm
Shield	not shielded
Cable cores	2 x 0,75mm <sup>2</sup>
Core colours	BU, BN
Type label	Alu: silver, black printing

**Operating conditions**

Media temperature	Ambient temperature
-50 °C...+350 °C	-20 °C...+80 °C

Media temperature  
 Ambient temperature

Temperature of liquid within the float chamber  
 Temperature of air around the magnetic switch

**Fixation**

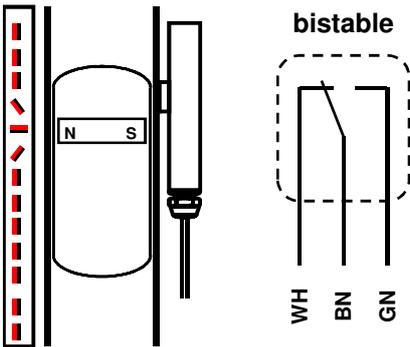
When ordering level indicators with switches, hose clamps are included.  
 When ordering switches as spare parts, hose clamps are never included and must be ordered separately.  
 In case of ordering hose clamps pipe size must be indicated:

For pipe diameter	30...40mm	Article no.	80648
For pipe diameter	40...57mm and 57...80mm	Article no.	84043

**Note**

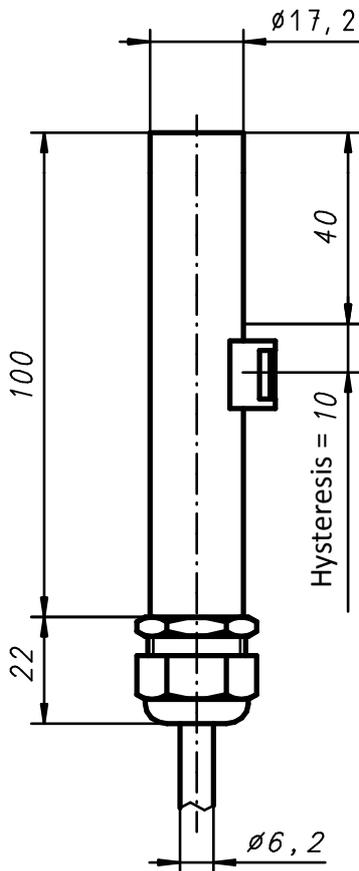
The switch is maintenance free.

**External electrical connections**



- Installed opposite to indication rail
- Cable exit downwards

**Dimensions**



**Function**

**Magnetic switch for WEKA Visual Level Indicators**

The magnetic switch is mounted outside of the float chamber opposite to the indication rail. The switching logic can be reversed by inverting the switch module with cable-exit upwards or by installing the switch module adjacent to the indication rail where technically authorised (see datasheet 20010501). The magnet inside the float activates the reed switch, when the liquid in the float chamber reaches that level.

Please refer to the safety guidelines.

<b>Product code</b>	<b>(standard)</b> 31160-NW/3	<b>with 3m cable</b>
	31160-NW/5	<b>with 5m cable</b>
	31160-NW/10	<b>with 10m cable</b>
	31160-NW/20	<b>with 20m cable</b>

**Switching logic**

**Change-over, bistable**

**Contact rating**

max.	230V
max.	1A
max.	60VA
max.	60W

**Enclosure**

IP68 - 5bar (EN 60529)

**Material**

Housing	Stainless steel 316 /316L
Cable gland	Brass: nickel-plated, 4...8mm
Seal	Fluoroelastomere (FKM)
Cable	Silicone: Si-SL-O, red, $\varnothing$ 6.2mm
Shield	not shielded
Cable cores	3 x 0,75mm <sup>2</sup>
Core colours	WH, BN, GN
Type label	Alu: silver, black printing

**Operating conditions**

Media temperature	Ambient temperature
-50 °C...+350 °C	-20 °C...+80 °C

Media temperature  
 Ambient temperature

Temperature of liquid within the float chamber  
 Temperature of air around the magnetic switch

**Fixation**

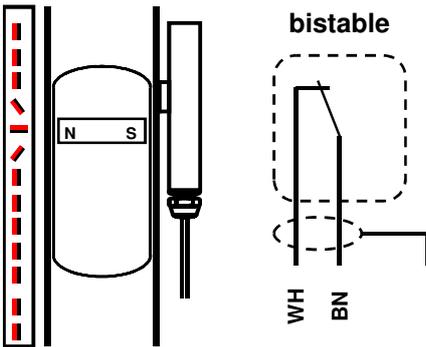
When ordering level indicators with switches, hose clamps are included.  
 When ordering switches as spare parts, hose clamps are never included and must be ordered separately.  
 In case of ordering hose clamps pipe size must be indicated:

For pipe diameter	30...40mm	Article no.	80648
For pipe diameter	40...57mm and 57...80mm	Article no.	84043

**Note**

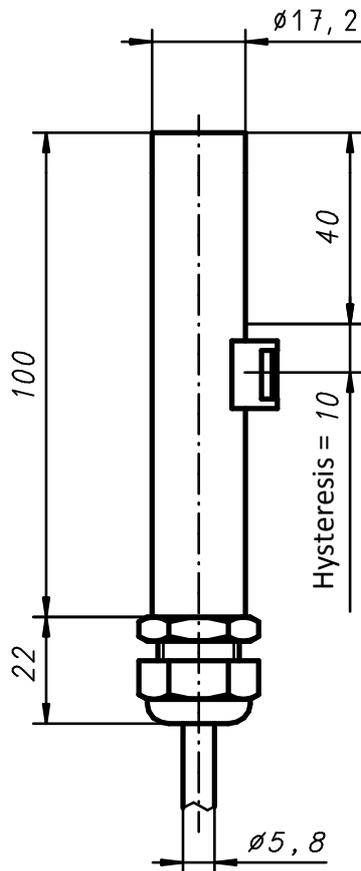
The switch is maintenance free.

**External electrical connections**



- Installed opposite to indication rail
- Cable exit downwards

**Dimensions**



**Function**

**Magnetic switch for  
WEKA Visual Level Indicators**

The magnetic switch is mounted outside of the float chamber opposite to the indication rail. The switching logic can be reversed by inverting the switch module with cable-exit upwards or by installing the switch module adjacent to the indication rail where technically authorised (see datasheet 20010501). The magnet inside the float activates the reed switch, when the liquid in the float chamber reaches that level.

Please refer to the safety guidelines.

<b>Product code</b>	<b>(standard)</b> 31130-NA/3	<b>with 3m cable</b>
	31130-NA/5	<b>with 5m cable</b>
	31130-NA/10	<b>with 10m cable</b>
	31130-NA/20	<b>with 20m cable</b>

**Switching logic**

**on/off, bistable**

**Contact rating**

max.	250V
max.	1.3A
max.	80VA
max.	80W

**Enclosure**

IP68 - 5bar (EN 60529)

**Material**

Housing	Stainless steel 316 /316L
Cable gland	PA6: grey, 3...8mm
Seal	Perbunan (NBR)
Cable	LiYCY/EB: blue, $\phi$ 5.8mm
Shield	shielded, but not connected
Cable cores	2 x 0,75mm <sup>2</sup>
Core colours	WH, BN
Type label	Polyester: silver, black printing

**Operating conditions**

Media temperature	Ambient temperature
-50°C...+150°C	-20°C...+80°C

Media temperature  
Ambient temperature

Temperature of liquid within the float chamber  
Temperature of air around the magnetic switch

**Fixation**

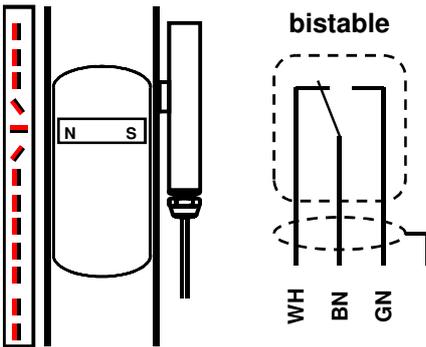
When ordering level indicators with switches, hose clamps are included.  
When ordering switches as spare parts, hose clamps are never included and must be ordered separately.  
In case of ordering hose clamps pipe size must be indicated:

For pipe diameter	30...40mm	Article no.	80648
For pipe diameter	40...57mm and 57...80mm	Article no.	84043

**Note**

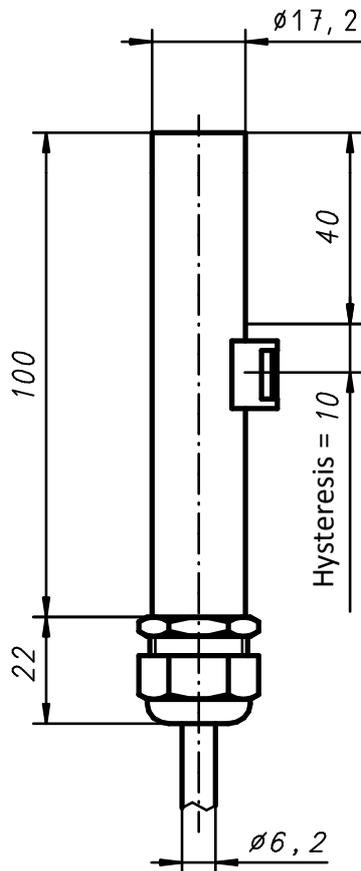
The switch is maintenance free.

**External electrical connections**



- Installed opposite to indication rail
- Cable exit downwards

**Dimensions**



**Function**

**Magnetic switch for  
WEKA Visual Level Indicators**

The magnetic switch is mounted outside of the float chamber opposite to the indication rail. The switching logic can be reversed by inverting the switch module with cable-exit upwards or by installing the switch module adjacent to the indication rail where technically authorised (see datasheet 20010501). The magnet inside the float activates the reed switch, when the liquid in the float chamber reaches that level.

Please refer to the safety guidelines.

<b>Product code</b>	<b>(standard)</b> 31160-NA/3	<b>with 3m cable</b>
	31160-NA/5	<b>with 5m cable</b>
	31160-NA/10	<b>with 10m cable</b>
	31160-NA/20	<b>with 20m cable</b>

**Switching logic**

**Change-over, bistable**

**Contact rating**

max.	230V
max.	1A
max.	60VA
max.	60W

**Enclosure**

IP68 - 5bar (EN 60529)

**Material**

Housing	Stainless steel 316 /316L
Cable gland	PA6: grey, 3...8mm
Seal	Perbunan (NBR)
Cable	LiYCY/EB: blue, $\phi$ 6.2mm
Shield	shielded, but not connected
Cable cores	3 x 0,75mm <sup>2</sup>
Core colours	WH, BN, GN
Type label	Polyester: silver, black printing

**Operating conditions**

Media temperature	Ambient temperature
-50°C...+150°C	-20°C...+80°C

Media temperature  
Ambient temperature

Temperature of liquid within the float chamber  
Temperature of air around the magnetic switch

**Fixation**

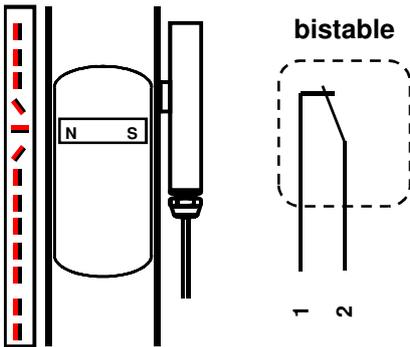
When ordering level indicators with switches, hose clamps are included.  
When ordering switches as spare parts, hose clamps are never included and must be ordered separately.  
In case of ordering hose clamps pipe size must be indicated:

For pipe diameter	30...40mm	Article no.	80648
For pipe diameter	40...57mm and 57...80mm	Article no.	84043

**Note**

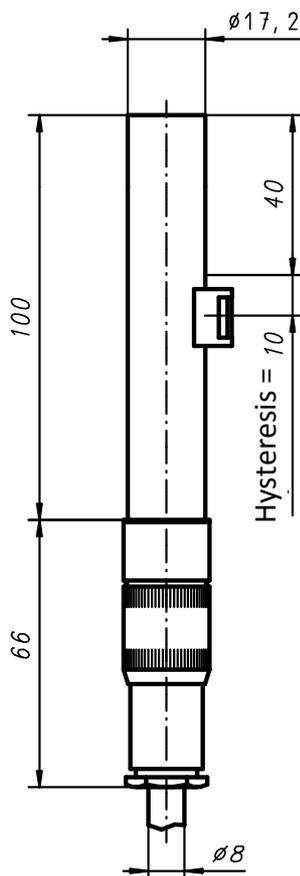
The switch is maintenance free.

**External electrical connections**



- Installed opposite to indication rail
- Cable exit downwards

**Dimensions**



**Function**

**Magnetic switch for  
WEKA Visual Level Indicators**

The magnetic switch is mounted outside of the float chamber opposite to the indication rail. The switching logic can be reversed by inverting the switch module with cable-exit upwards or by installing the switch module adjacent to the indication rail where technically authorised (see datasheet 20010501). The magnet inside the float activates the reed switch, when the liquid in the float chamber reaches that level.

Please refer to the safety guidelines.

**Product code**

**31130-NK**

**(with counter plug, without cable)**

**Switching logic**

**on/off, bistable**

**Contact rating**

max. 250V  
max. 1.3A  
max. 80VA  
max. 80W

**Enclosure**

IP67 - plugged and locked (EN 60529)

**Material**

Housing: Stainless steel 316 /316L  
Plug connector: Brass: chromium-plated  
Seal: Perbunan (NBR)  
Insert: 3-pole + PE  
Connection: Solder-terminal  
Cable cores: max. 1mm  
Cable diameter: 6...8mm  
Type label: Polyester: silver, black printing

**Operating conditions**

Media temperature	Ambient temperature
-50°C...+150°C	-20°C...+80°C

Media temperature  
Ambient temperature

Temperature of liquid within the float chamber  
Temperature of air around the magnetic switch

**Fixation**

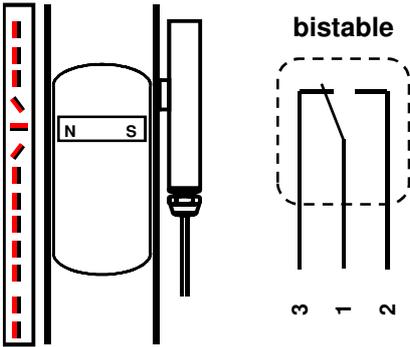
When ordering level indicators with switches, hose clamps are included.  
When ordering switches as spare parts, hose clamps are never included and must be ordered separately.  
In case of ordering hose clamps pipe size must be indicated:

For pipe diameter 30...40mm Article no. 80648  
For pipe diameter 40...57mm and 57...80mm Article no. 84043

**Note**

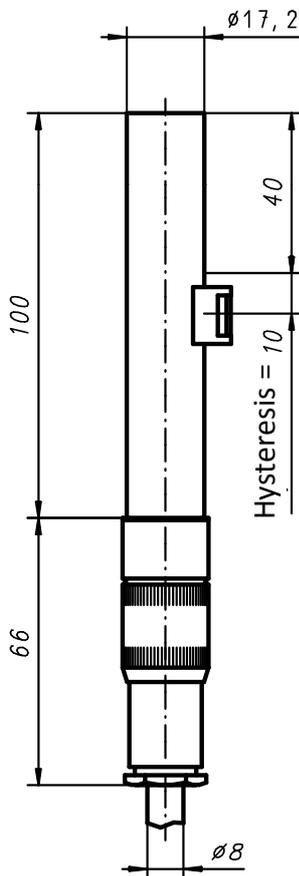
The switch is maintenance free.

**External electrical connections**



- Installed opposite to indication rail
- Cable exit downwards

**Dimensions**



**Function**

**Magnetic switch for WEKA Visual Level Indicators**

The magnetic switch is mounted outside of the float chamber opposite to the indication rail. The switching logic can be reversed by inverting the switch module with cable-exit upwards or by installing the switch module adjacent to the indication rail where technically authorised (see datasheet 20010501). The magnet inside the float activates the reed switch, when the liquid in the float chamber reaches that level.

Please refer to the safety guidelines.

**Product code**

**31160-NK**

**(with counter plug, without cable)**

**Switching logic**

**Change-over, bistable**

**Contact rating**

max. 230V  
max. 1A  
max. 60VA  
max. 60W

**Enclosure**

IP67 - plugged and locked (EN 60529)

**Material**

Housing: Stainless steel 316 /316L  
Plug connector: Brass: chromium-plated  
Seal: Perbunan (NBR)  
Insert: 3-pole + PE  
Connection: Solder-terminal  
Cable cores: max. 1mm  
Cable diameter: 6...8mm  
Type label: Polyester: silver, black printing

**Operating conditions**

Media temperature	Ambient temperature
-50°C...+150°C	-20°C...+80°C

Media temperature  
Ambient temperature

Temperature of liquid within the float chamber  
Temperature of air around the magnetic switch

**Fixation**

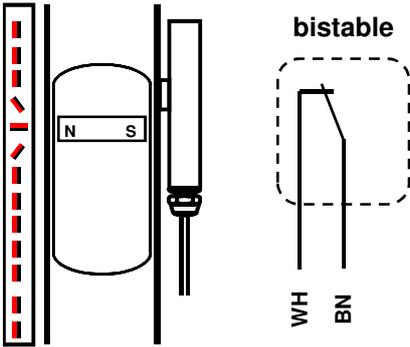
When ordering level indicators with switches, hose clamps are included.  
When ordering switches as spare parts, hose clamps are never included and must be ordered separately.  
In case of ordering hose clamps pipe size must be indicated:

For pipe diameter 30...40mm Article no. 80648  
For pipe diameter 40...57mm and 57...80mm Article no. 84043

**Note**

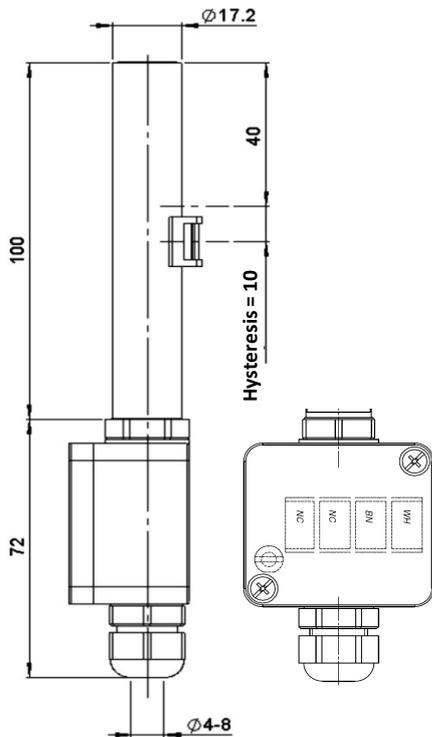
The switch is maintenance free.

**External electrical connections**



- Installed opposite to indication rail
- Cable exit downwards

**Dimensions**



**Function**

**Magnetic switch for  
WEKA Visual Level Indicators**

The magnetic switch is mounted outside of the float chamber opposite to the indication rail. The switching logic can be reversed by inverting the switch module with cable-exit upwards or by installing the switch module adjacent to the indication rail where technically authorised (see datasheet 20010501). The magnet inside the float activates the reed switch, when the liquid in the float chamber reaches that level.

Please refer to the safety guidelines.

**Product code**

**31130-NT**

**Switching logic**

**on/off, bistable**

**Contact rating**

max. 250V  
max. 1.3A  
max. 80VA  
max. 80W

**Enclosure**

IP65, with conformal installation (EN 60529)

**Material**

Housing: Stainless steel 316 /316L  
Terminal box: Al, DIN 1725: unpainted, 45 x 50 x 30mm  
Seal: Perbunan (NBR)  
Cable gland: PA6: grey  
Insert: Perbunan (NBR)  
Cable cores: max. 4 x 0.5qmm  
Cable diameter: 4...8mm  
Type label: Polyester: yellow, black printing

**Operating conditions**

Media temperature	Ambient temperature
-50°C...+150°C	-20°C...+80°C

Media temperature  
Ambient temperature

Temperature of liquid within the float chamber  
Temperature of air around the magnetic switch

**Fixation**

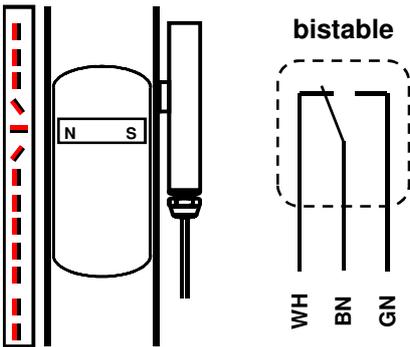
When ordering level indicators with switches, hose clamps are included.  
When ordering switches as spare parts, hose clamps are never included and must be ordered separately.  
In case of ordering hose clamps pipe size must be indicated:

For pipe diameter 30...40mm Article no. 80648  
For pipe diameter 40...57mm and 57...80mm Article no. 84043

**Note**

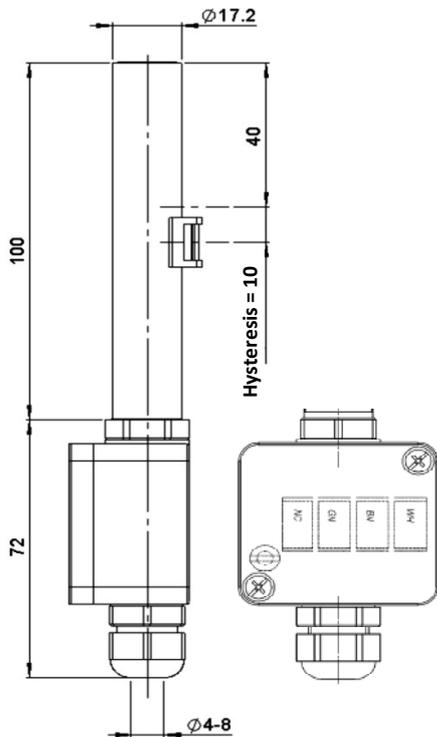
The switch is maintenance free.

**External electrical connections**



- Installed opposite to indication rail
- Cable exit downwards

**Dimensions**



**Function**

**Magnetic switch for  
WEKA Visual Level Indicators**

The magnetic switch is mounted outside of the float chamber opposite to the indication rail. The switching logic can be reversed by inverting the switch module with cable-exit upwards or by installing the switch module adjacent to the indication rail where technically authorised (see datasheet 20010501). The magnet inside the float activates the reed switch, when the liquid in the float chamber reaches that level.

Please refer to the safety guidelines.

**Product code**

**31160-NT**

**Switching logic**

**Change-over, bistable**

**Contact rating**

max. 230V  
max. 1A  
max. 60VA  
max. 60W

**Enclosure**

IP65, with conformal installation (EN 60529)

**Material**

Housing: Stainless steel 316 /316L  
Terminal box: Al, DIN 1725: unpainted, 45 x 50 x 30mm  
Seal: Perbunan (NBR)  
Cable gland: PA6: grey  
Insert: Perbunan (NBR)  
Cable cores: max. 4 x 0.5qmm  
Cable diameter: 4...8mm  
Type label: Polyester: yellow, black printing

**Operating conditions**

Media temperature	Ambient temperature
-50°C...+150°C	-20°C...+80°C

Media temperature  
Ambient temperature

Temperature of liquid within the float chamber  
Temperature of air around the magnetic switch

**Fixation**

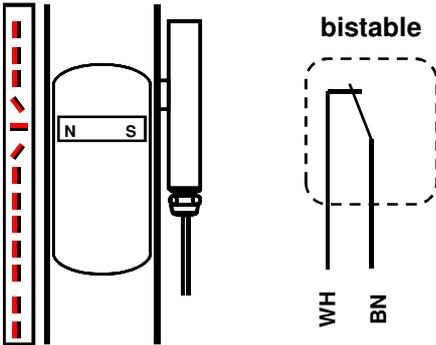
When ordering level indicators with switches, hose clamps are included.  
When ordering switches as spare parts, hose clamps are never included and must be ordered separately.  
In case of ordering hose clamps pipe size must be indicated:

For pipe diameter 30...40mm Article no. 80648  
For pipe diameter 40...57mm and 57...80mm Article no. 84043

**Note**

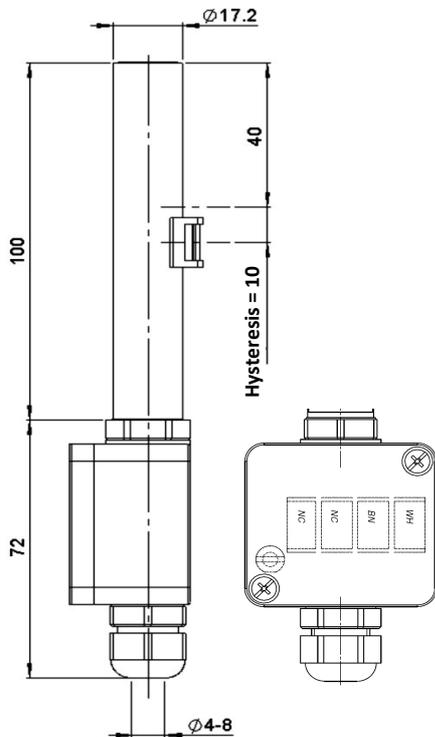
The switch is maintenance free.

**External electrical connections**



- Installed opposite to indication rail
- Cable exit downwards

**Dimensions**



**Function**

**Magnetic switch for WEKA Visual Level Indicators**

The magnetic switch is mounted outside of the float chamber opposite to the indication rail. The switching logic can be reversed by inverting the switch module with cable-exit upwards or by installing the switch module adjacent to the indication rail where technically authorised (see datasheet 20010501). The magnet inside the float activates the reed switch, when the liquid in the float chamber reaches that level.

Please refer to the safety guidelines.

**Product code** 31130-NB

**Switching logic**

**on/off, bistable**

**Contact rating**

max. 250V  
 max. 1.3A  
 max. 80VA  
 max. 80W

**Enclosure**

IP65, with conformal installation (EN 60529)

**Material**

Housing: Stainless steel 316 /316L  
 Terminal box: Al, DIN 1725: unpainted, 45 x 50 x 30mm  
 Seal: Silicone (SI)  
 Cable gland: Brass: nickel-plated  
 Insert: Polyvinylidenfluorid (PVDF)  
 Cable cores: max. 4 x 0.5qmm  
 Cable diameter: 4...8mm  
 Type label: Alu: silver, black printing

**Operating conditions**

Media temperature	Ambient temperature
-50°C...+300°C	-20°C...+80°C

Media temperature  
 Ambient temperature

Temperature of liquid within the float chamber  
 Temperature of air around the magnetic switch

**Fixation**

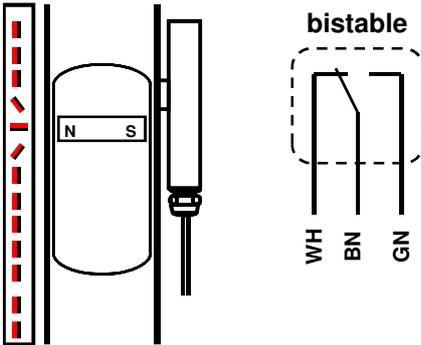
When ordering level indicators with switches, hose clamps are included.  
 When ordering switches as spare parts, hose clamps are never included and must be ordered separately.  
 In case of ordering hose clamps pipe size must be indicated:

For pipe diameter 30...40mm Article no. 80648  
 For pipe diameter 40...57mm and 57...80mm Article no. 84043

**Note**

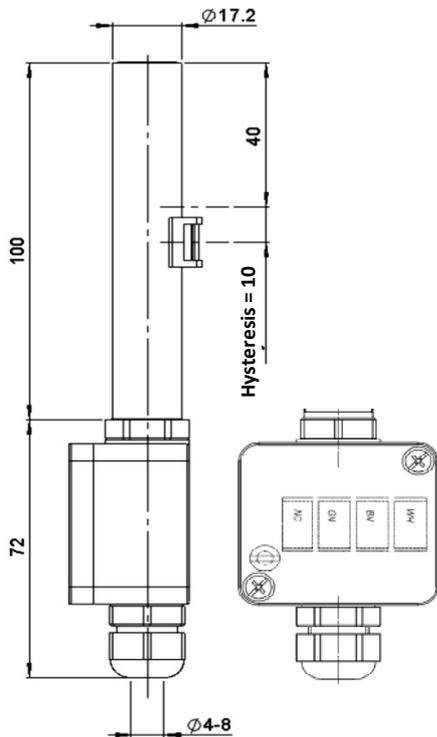
The switch is maintenance free.

### External electrical connections



- Installed opposite to indication rail
- Cable exit downwards

### Dimensions



### Function

#### Magnetic switch for WEKA Visual Level Indicators

The magnetic switch is mounted outside of the float chamber opposite to the indication rail. The switching logic can be reversed by inverting the switch module with cable-exit upwards or by installing the switch module adjacent to the indication rail where technically authorised (see datasheet 20010501). The magnet inside the float activates the reed switch, when the liquid in the float chamber reaches that level.

Please refer to the safety guidelines.

### Product code

31160-NB

### Switching logic

#### Change-over, bistable

### Contact rating

max. 230V  
max. 1A  
max. 60VA  
max. 60W

### Enclosure

IP65, with conformal installation (EN 60529)

### Material

Housing: Stainless steel 316 /316L  
Terminal box: Al, DIN 1725: unpainted, 45 x 50 x 30mm  
Seal: Silicone (SI)  
Cable gland: Brass: nickel-plated  
Insert: Polyvinylidenfluorid (PVDF)  
Cable cores: max. 4 x 0.5qmm  
Cable diameter: 4...8mm  
Type label: Alu: silver, black printing

### Operating conditions

Media temperature	Ambient temperature
-50°C...+300°C	-20°C...+80°C

Media temperature  
Ambient temperature

Temperature of liquid within the float chamber  
Temperature of air around the magnetic switch

### Fixation

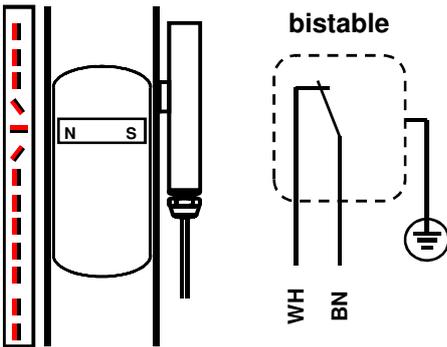
When ordering level indicators with switches, hose clamps are included.  
When ordering switches as spare parts, hose clamps are never included and must be ordered separately.  
In case of ordering hose clamps pipe size must be indicated:

For pipe diameter 30...40mm Article no. 80648  
For pipe diameter 40...57mm and 57...80mm Article no. 84043

### Note

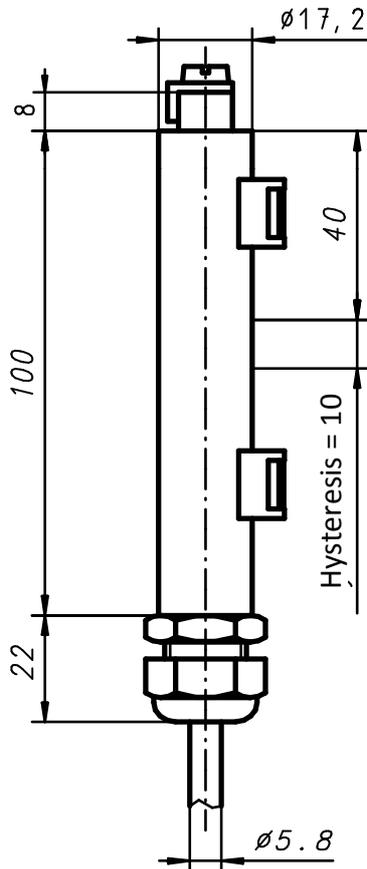
The switch is maintenance free.

**External electrical connections**



- Installed opposite to indication rail
- Cable exit downwards

**Dimensions**



**Function**

**Magnetic switch for WEKA Visual Level Indicators**

The magnetic switch is mounted outside of the float chamber opposite to the indication rail. The switching logic can be reversed by inverting the switch module with cable-exit upwards or by installing the switch module adjacent to the indication rail where technically authorised (see datasheet 20010501). The magnet inside the float activates the reed switch, when the liquid in the float chamber reaches that level. The switch must be connected with a certified energy limiting device (e.g. Zener barrier) installed in a safe area. This device guarantees the electrical limit values specified below, including the cable. Please refer to the safety guidelines.

<b>Product code</b>	<b>(standard)</b> 31130-NI/3	<b>with 3m cable</b>
	31130-NI/5	<b>with 5m cable</b>
	31130-NI/10	<b>with 10m cable</b>
	31130-NI/20	<b>with 20m cable</b>

**Switching logic**

**on/off, bistable**

**Contact rating**

max.	250V
max.	1.3A
max.	80VA
max.	80W

**Electrical characteristics**

Ci	= max. 250pF
Li	= max. 5uH

**Enclosure**

IP68 - 10bar (EN 60529)

**Material**

Housing	Stainless steel 316 /316L
Cable gland	PA6: blue, 4...8mm
Seal	Perbunan (NBR)
Cable	LiYCY/EB: blue, $\phi$ 5.8mm (110pF, 0.7uH/r shielded, but not connected)
Shield	
Cable cores	2 x 0,75mm <sup>2</sup>
Core colours	WH, BN
Type label	Polyester: silver, black printing

**Operating conditions**

Media temperature	Ambient temperature	Temperature class
-50°C...+150°C	-20°C...+80°C	T3 (200°C)
-50°C...+135°C	-20°C...+80°C	T4 (135°C)
-50°C...+100°C	-20°C...+80°C	T5 (100°C)
-50°C...+85°C	-20°C...+80°C	T6 (85°C)

Media temperature	Temperature of liquid within the float chamber
Ambient temperature	Temperature of air around the magnetic switch
Temperature class	Specified max. surface temperature

**Grounding**

A connection to protection ground is only guaranteed if both fastening clamps are used to fix the magnetic switch to the float chamber. If the float chamber does not have electrical continuity to protective ground, or if only one fastening clamp can be used for fixing the switch, the connection must be made with the foreseen screw clamp of the switch.

**Fixation**

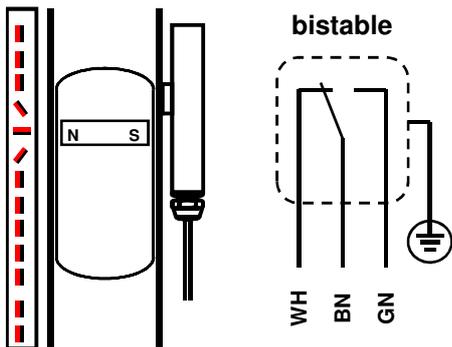
When ordering level indicators with switches, hose clamps are included.  
 When ordering switches as spare parts, hose clamps are never included and must be ordered separately.  
 In case of ordering hose clamps pipe size must be indicated:

For pipe diameter	30...40mm	Article no.	80648
For pipe diameter	40...57mm and 57...80mm	Article no.	84043

**Note**

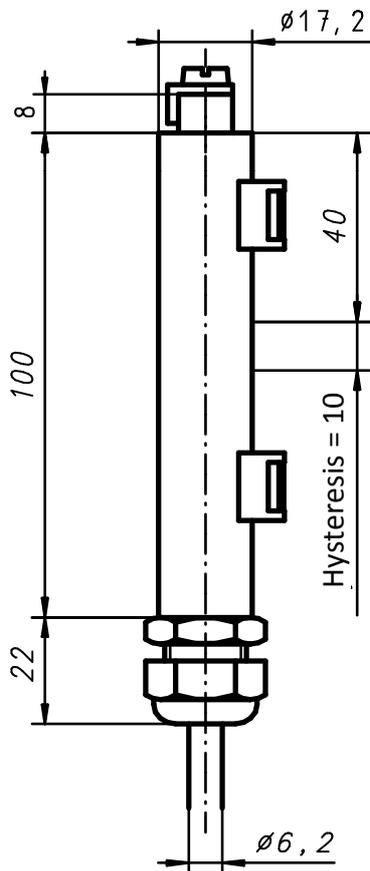
The relevant certificates are available at [www.weka-ag.ch](http://www.weka-ag.ch)  
 The cable must be durably installed. This device is maintenancefree and repair work is prohibited.  
 For use in areas with explosive dust consider the max. media temperature instead of max. surface temperature.

**External electrical connections**



- Installed opposite to indication rail
- Cable exit downwards

**Dimensions**



**Function**

**Magnetic switch for WEKA Visual Level Indicators**

The magnetic switch is mounted outside of the float chamber opposite to the indication rail. The switching logic can be reversed by inverting the switch module with cable-exit upwards or by installing the switch module adjacent to the indication rail where technically authorised (see datasheet 20010501). The magnet inside the float activates the reed switch, when the liquid in the float chamber reaches that level. The switch must be connected with a certified energy limiting device (e.g. Zener barrier) installed in a safe area. This device guarantees the electrical limit values specified below, including the cable. Please refer to the safety guidelines.

<b>Product code</b>	<b>(standard)</b> 31160-NI/3	<b>with 3m cable</b>
	31160-NI/5	<b>with 5m cable</b>
	31160-NI/10	<b>with 10m cable</b>
	31160-NI/20	<b>with 20m cable</b>

**Switching logic**

**Change-over, bistable**

**Contact rating**

max.	230V
max.	1A
max.	60VA
max.	60W

**Electrical characteristics**

Ci = max.	250pF
Li = max.	5uH

**Enclosure**

IP68 - 10bar (EN 60529)

**Material**

Housing	Stainless steel 316 /316L
Cable gland	PA6: blue, 4...8mm
Seal	Perbunan (NBR)
Cable	LiYCY/EB: blue, Ø 6.2mm (110pF, 0.7µH/m shielded, but not connected)
Shield	
Cable cores	3 x 0,75mm <sup>2</sup>
Core colours	WH, BN, GN
Type label	Polyester: silver, black printing

**Operating conditions**

Media temperature	Ambient temperature	Temperature class
-50°C...+150°C	-20°C...+80°C	T3 (200°C)
-50°C...+135°C	-20°C...+80°C	T4 (135°C)
-50°C...+100°C	-20°C...+80°C	T5 (100°C)
-50°C...+85°C	-20°C...+80°C	T6 (85°C)

Media temperature	Temperature of liquid within the float chamber
Ambient temperature	Temperature of air around the magnetic switch
Temperature class	Specified max. surface temperature

**Grounding**

A connection to protection ground is only guaranteed if both fastening clamps are used to fix the magnetic switch to the float chamber. If the float chamber does not have electrical continuity to protective ground, or if only one fastening clamp can be used for fixing the switch, the connection must be made with the foreseen screw clamp of the switch.

**Fixation**

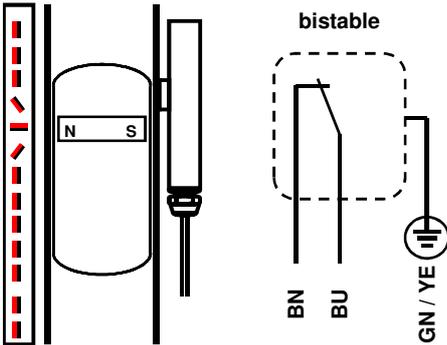
When ordering level indicators with switches, hose clamps are included. When ordering switches as spare parts, hose clamps are never included and must be ordered separately. In case of ordering hose clamps pipe size must be indicated:

For pipe diameter	30...40mm	Article no.	80648
For pipe diameter	40...57mm and 57...80mm	Article no.	84043

**Note**

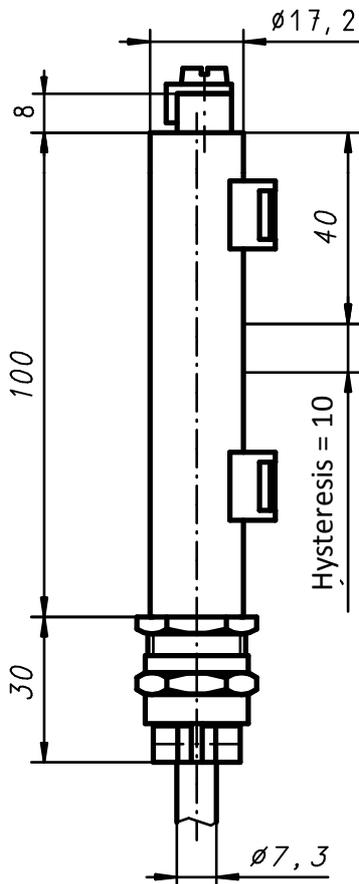
The relevant certificates are available at [www.weka-ag.ch](http://www.weka-ag.ch)  
 The cable must be durably installed. This device is maintenancefree and repair work is prohibited.  
 For use in areas with explosive dust consider the max. media temperature instead of max. surface temperature.

**External electrical connections**



- Installed opposite to indication rail
- Cable exit downwards

**Dimensions**



**Function**

**Magnetic switch for WEKA Visual Level Indicators**

The magnetic switch is mounted outside of the float chamber opposite to the indication rail. The switching logic can be reversed by inverting the switch module with cable-exit upwards or by installing the switch module adjacent to the indication rail (see datasheet 20010501).

The magnet inside the float activates the reed switch, when the liquid in the float chamber reaches that level.

Please refer to the safety guidelines.

<b>Product code</b>	<b>(standard)</b> 31130-ND/3	<b>with 3m cable</b>
	31130-ND/5	<b>with 5m cable</b>
	31130-ND/10	<b>with 10m cable</b>
	31130-ND/20	<b>with 20m cable</b>

**Switching logic**

**on/off, bistable**

**Contact rating**

max.	250V
max.	1.3A
max.	80VA
max.	80W

**Enclosure**

IP68 - 10bar (EN 60529)

**Material**

Housing	Stainless steel 316 /316L
Cable gland	Brass: nickel-plated, 7...9mm
Seal	Perbunan (NBR)
Cable	PVC: grey, Ø 7.3mm, largely resistant to oils/petroleum products
Shield	not shielded
Cable cores	3 x 0,75mm <sup>2</sup> (2 + PE)
Core colours	BN, BU, GN/YE
Type label	Polyester: silver, black printing

**Operating conditions**

Media temperature	Ambient temperature	Temperature class
-50°C...+150°C	-20°C...+80°C	T3 (200°C)
-50°C...+135°C	-20°C...+80°C	T4 (135°C)
-50°C...+100°C	-20°C...+80°C	T5 (100°C)
-50°C...+85°C	-20°C...+80°C	T6 (85°C)

Media temperature	Temperature of liquid within the float chamber
Ambient temperature	Temperature of air around the magnetic switch
Temperature class	Specified max. surface temperature

**Grounding**

A connection to protection ground is only guaranteed if both fastening clamps are used to fix the magnetic switch to the float chamber. If the float chamber does not have electrical continuity to protective ground, or if only one fastening clamp can be used for fixing the switch, the connection must be made with the foreseen screw clamp of the switch.

**Fixation**

When ordering level indicators with switches, hose clamps are included.

When ordering switches as spare parts, hose clamps are never included and must be ordered separately.

In case of ordering hose clamps pipe size must be indicated:

For pipe diameter	30...40mm	Article no.	80648
For pipe diameter	40...57mm and 57...80mm	Article no.	84043

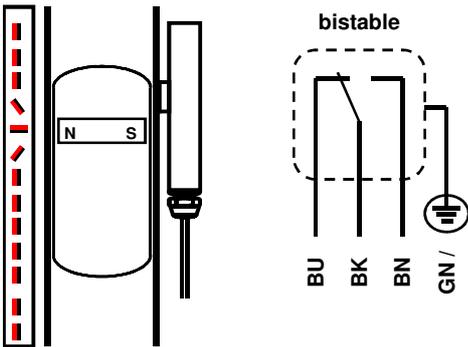
**Note**

The relevant certificates are available at [www.weka-ag.ch](http://www.weka-ag.ch)

The cable must be durably installed. This device is maintenancefree and repair work is prohibited.

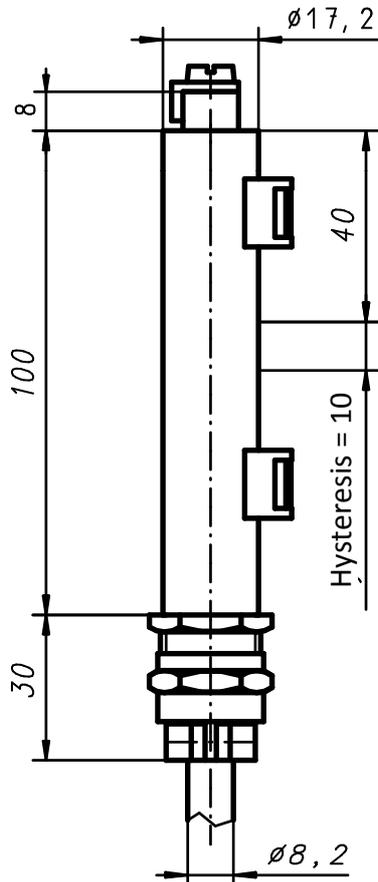
For use in areas with explosive dust consider the max. media temperature instead of max. surface temperature.

**External electrical connections**



- Installed opposite to indication rail
- Cable exit downwards

**Dimensions**



**Function**

**Magnetic switch for WEKA Visual Level Indicators**

The magnetic switch is mounted outside of the float chamber opposite to the indication rail. The switching logic can be reversed by inverting the switch module with cable-exit upwards or by installing the switch module adjacent to the indication rail (see datasheet 20010501).  
The magnet inside the float activates the reed switch, when the liquid in the float chamber reaches that level.

Please refer to the safety guidelines.

<b>Product code</b>	<b>(standard)</b> 31160-ND/3	with 3m cable
	31160-ND/5	with 5m cable
	31160-ND/10	with 10m cable
	31160-ND/20	with 20m cable

**Switching logic**

**Change-over, bistable**

**Contact rating**

max.	230V
max.	1A
max.	60VA
max.	60W

**Enclosure**

IP68 - 10bar (EN 60529)

**Material**

Housing	Stainless steel 316 /316L
Cable gland	Brass: nickel-plated, 7...9mm
Seal	Perbunan (NBR)
Cable	PVC: grey, Ø 8.2mm, largely resistant to oils/petroleum products
Shield	not shielded
Cable cores	4 x 0,75mm <sup>2</sup> (3 + PE)
Core colours	BN, BU, BK, GN/YE
Type label	Polyester: silver, black printing

**Operating conditions**

Media temperature	Ambient temperature	Temperature class
-50°C...+150°C	-20°C...+80°C	T3 (200°C)
-50°C...+135°C	-20°C...+80°C	T4 (135°C)
-50°C...+100°C	-20°C...+80°C	T5 (100°C)
-50°C...+85°C	-20°C...+80°C	T6 (85°C)

Media temperature	Temperature of liquid within the float chamber
Ambient temperature	Temperature of air around the magnetic switch
Temperature class	Specified max. surface temperature

**Grounding**

A connection to protection ground is only guaranteed if both fastening clamps are used to fix the magnetic switch to the float chamber. If the float chamber does not have electrical continuity to protective ground, or if only one fastening clamp can be used for fixing the switch, the connection must be made with the foreseen screw clamp of the switch.

**Fixation**

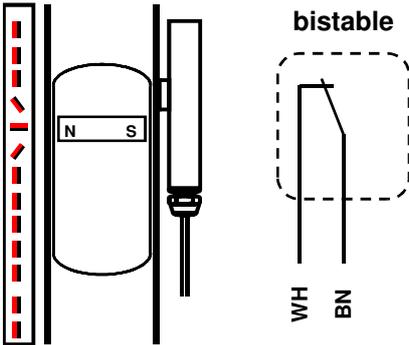
When ordering level indicators with switches, hose clamps are included.  
When ordering switches as spare parts, hose clamps are never included and must be ordered separately.  
In case of ordering hose clamps pipe size must be indicated:

For pipe diameter	30...40mm	Article no.	80648
For pipe diameter	40...57mm and 57...80mm	Article no.	84043

**Note**

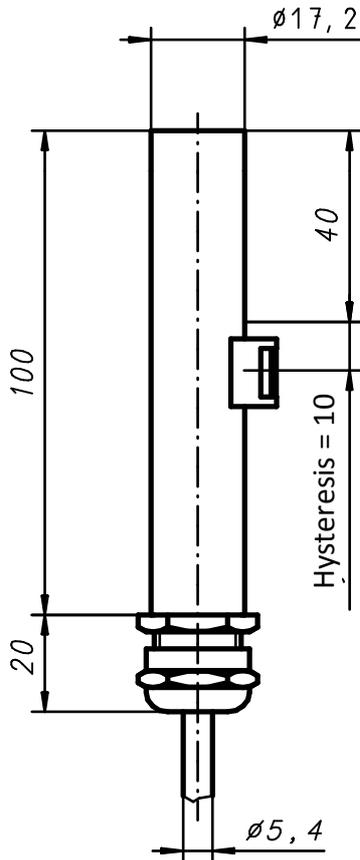
The relevant certificates are available at [www.weka-ag.ch](http://www.weka-ag.ch)  
The cable must be durably installed. This device is maintenancefree and repair work is prohibited.  
For use in areas with explosive dust consider the max. media temperature instead of max. surface temperature.

**External electrical connections**



- Installed opposite to indication rail
- Cable exit downwards

**Dimensions**



**Function**

**Magnetic switch for  
WEKA Visual Level Indicators**

The magnetic switch is mounted outside of the float chamber opposite to the indication rail. The switching logic can be reversed by inverting the switch module with cable-exit upwards or by installing the switch module adjacent to the indication rail where technically authorised (see datasheet 20010501). The magnet inside the float activates the reed switch, when the liquid in the float chamber reaches that level.

Please refer to the safety guidelines.

<b>Product code</b>	<b>(standard)</b> 31130-NM/3	<b>with 3m cable</b>
	31130-NM/5	<b>with 5m cable</b>
	31130-NM/10	<b>with 10m cable</b>
	31130-NM/20	<b>with 20m cable</b>

**Switching logic**

**on/off, bistable**

**Contact rating**

max.	250V
max.	1.3A
max.	80VA
max.	80W

**Enclosure**

IP68 - 5bar (EN 60529)

**Material**

Housing	Stainless steel 316 /316L
Cable gland	Brass: nickel-plated, 5...10mm
Seal	Perbunan (NBR)
Cable	LiYY: grey, $\phi$ 5.4mm
Shield	not shielded
Cable cores	2 x 0,75mm <sup>2</sup>
Core colours	WH, BN
Type label	Polyester: silver, black printing

**Operating conditions**

Media temperature	Ambient temperature
-50 °C...+150 °C	-20 °C...+80 °C

Media temperature  
Ambient temperature

Temperature of liquid within the float chamber  
Temperature of air around the magnetic switch

**Fixation**

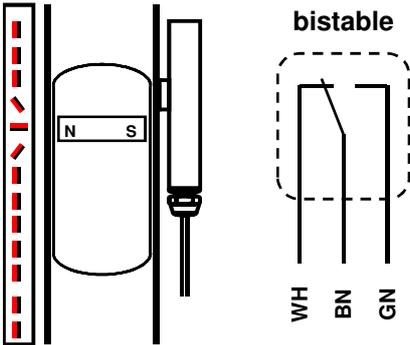
When ordering level indicators with switches, hose clamps are included.  
When ordering switches as spare parts, hose clamps are never included and must be ordered separately.  
In case of ordering hose clamps pipe size must be indicated:

For pipe diameter	30...40mm	Article no.	80648
For pipe diameter	40...57mm and 57...80mm	Article no.	84043

**Note**

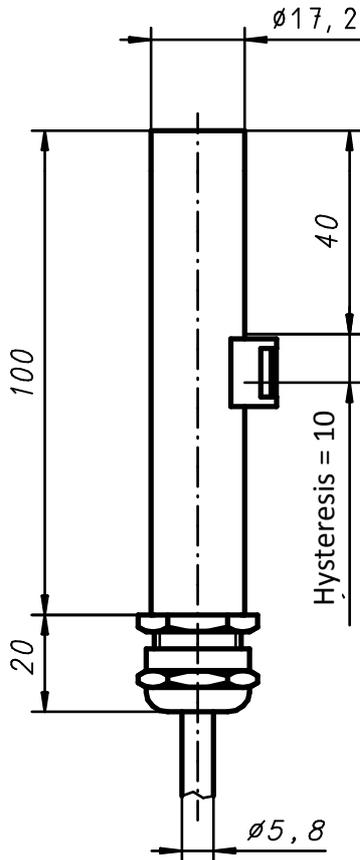
The switch is maintenance free.

**External electrical connections**



- Installed opposite to indication rail
- Cable exit downwards

**Dimensions**



**Function**

**Magnetic switch for  
WEKA Visual Level Indicators**

The magnetic switch is mounted outside of the float chamber opposite to the indication rail. The switching logic can be reversed by inverting the switch module with cable-exit upwards or by installing the switch module adjacent to the indication rail where technically authorised (see datasheet 20010501). The magnet inside the float activates the reed switch, when the liquid in the float chamber reaches that level.

Please refer to the safety guidelines.

<b>Product code</b>	<b>(standard)</b> 31160-NM/3	<b>with 3m cable</b>
	31160-NM/5	<b>with 5m cable</b>
	31160-NM/10	<b>with 10m cable</b>
	31160-NM/20	<b>with 20m cable</b>

**Switching logic**

**Change-over, bistable**

**Contact rating**

max.	230V
max.	1A
max.	60VA
max.	60W

**Enclosure**

IP68 - 5bar (EN 60529)

**Material**

Housing	Stainless steel 316 /316L
Cable gland	Brass: nickel-plated, 5...10mm
Seal	Perbunan (NBR)
Cable	LiYY: grey, $\phi$ 5.8mm
Shield	not shielded
Cable cores	3 x 0,75mm <sup>2</sup>
Core colours	WH, BN, GN
Type label	Polyester: silver, black printing

**Operating conditions**

Media temperature	Ambient temperature
-50°C...+150°C	-20°C...+80°C

Media temperature  
Ambient temperature

Temperature of liquid within the float chamber  
Temperature of air around the magnetic switch

**Fixation**

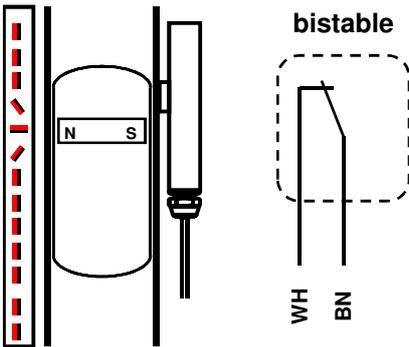
When ordering level indicators with switches, hose clamps are included.  
When ordering switches as spare parts, hose clamps are never included and must be ordered separately.  
In case of ordering hose clamps pipe size must be indicated:

For pipe diameter	30...40mm	Article no.	80648
For pipe diameter	40...57mm and 57...80mm	Article no.	84043

**Note**

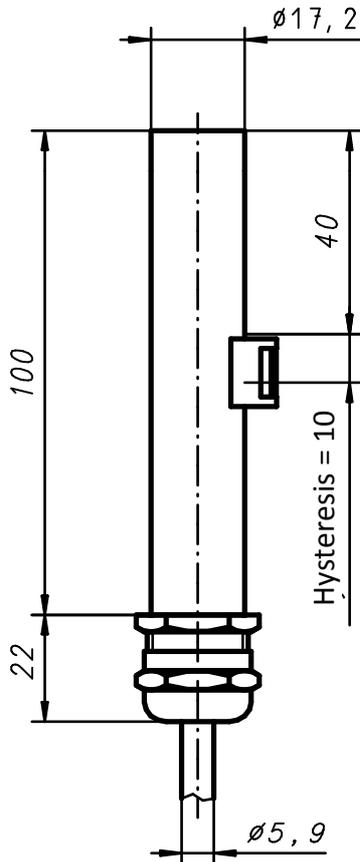
The switch is maintenance free.

**External electrical connections**



- Installed opposite to indication rail
- Cable exit downwards

**Dimensions**



**Function**

**Magnetic switch for  
WEKA Visual Level Indicators**

The magnetic switch is mounted outside of the float chamber opposite to the indication rail. The switching logic can be reversed by inverting the switch module with cable-exit upwards or by installing the switch module adjacent to the indication rail where technically authorised (see datasheet 20010501). The magnet inside the float activates the reed switch, when the liquid in the float chamber reaches that level.

Please refer to the safety guidelines.

<b>Product code</b>	<b>(standard)</b> 31130-NS/3	<b>with 3m cable</b>
	31130-NS/5	<b>with 5m cable</b>
	31130-NS/10	<b>with 10m cable</b>
	31130-NS/20	<b>with 20m cable</b>

**Switching logic**

**on/off, bistable**

**Contact rating**

max.	250V
max.	1.3A
max.	80VA
max.	80W

**Enclosure**

IP68 - 5bar (EN 60529)

**Material**

Housing	Stainless steel 316 /316L
Cable gland	Stainless steel: 1.4436, 5...10mm
Seal	Fluorinated Propylene Monomere (FPM)
Cable	Silicone: Si-SL-O, red, $\varnothing$ 5.9mm
Shield	not shielded
Cable cores	2 x 0,75mm <sup>2</sup>
Core colours	WH, BN
Type label	Polyester: silver, black printing

**Operating conditions**

Media temperature	Ambient temperature
-50 °C...+150 °C	-20 °C...+80 °C

Media temperature  
Ambient temperature

Temperature of liquid within the float chamber  
Temperature of air around the magnetic switch

**Fixation**

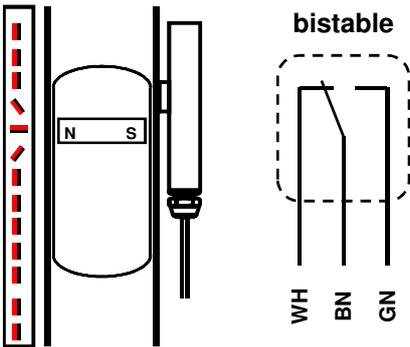
When ordering level indicators with switches, hose clamps are included.  
When ordering switches as spare parts, hose clamps are never included and must be ordered separately.  
In case of ordering hose clamps pipe size must be indicated:

For pipe diameter	30...40mm	Article no.	80648
For pipe diameter	40...57mm and 57...80mm	Article no.	84043

**Note**

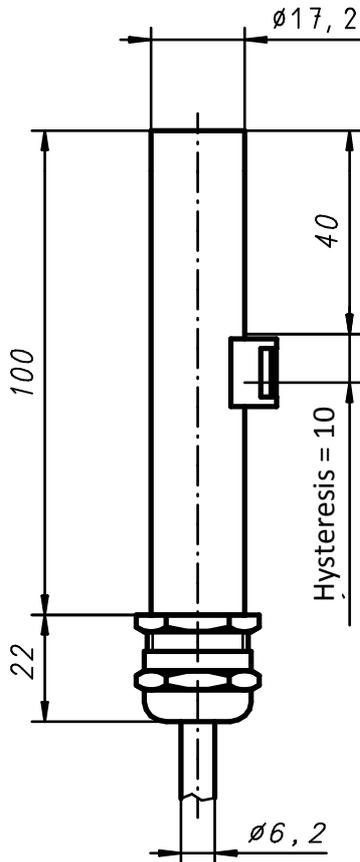
The switch is maintenance free.

**External electrical connections**



- Installed opposite to indication rail
- Cable exit downwards

**Dimensions**



**Function**

**Magnetic switch for  
WEKA Visual Level Indicators**

The magnetic switch is mounted outside of the float chamber opposite to the indication rail. The switching logic can be reversed by inverting the switch module with cable-exit upwards or by installing the switch module adjacent to the indication rail where technically authorised (see datasheet 20010501). The magnet inside the float activates the reed switch, when the liquid in the float chamber reaches that level.

Please refer to the safety guidelines.

<b>Product code</b>	<b>(standard)</b> 31160-NS/3	<b>with 3m cable</b>
	31160-NS/5	<b>with 5m cable</b>
	31160-NS/10	<b>with 10m cable</b>
	31160-NS/20	<b>with 20m cable</b>

**Switching logic**

**Change-over, bistable**

**Contact rating**

max.	230V
max.	1A
max.	60VA
max.	60W

**Enclosure**

IP68 - 5bar (EN 60529)

**Material**

Housing	Stainless steel 316 /316L
Cable gland	Stainless steel: 1.4436, 5...10mm
Seal	Fluorinated Propylene Monomere (FPM)
Cable	Silicone: Si-SL-O, red, $\varnothing$ 6.2mm
Shield	not shielded
Cable cores	3 x 0,75mm <sup>2</sup>
Core colours	WH, BN, GN
Type label	Polyester: silver, black printing

**Operating conditions**

Media temperature	Ambient temperature
-50 °C...+150 °C	-20 °C...+80 °C

Media temperature  
Ambient temperature

Temperature of liquid within the float chamber  
Temperature of air around the magnetic switch

**Fixation**

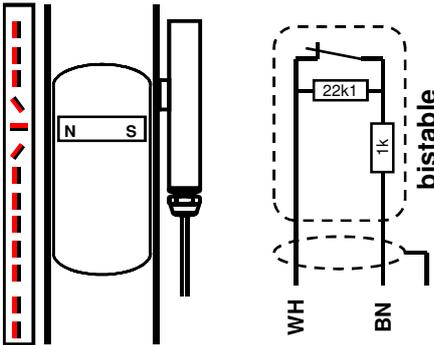
When ordering level indicators with switches, hose clamps are included.  
When ordering switches as spare parts, hose clamps are never included and must be ordered separately.  
In case of ordering hose clamps pipe size must be indicated:

For pipe diameter	30...40mm	Article no.	80648
For pipe diameter	40...57mm and 57...80mm	Article no.	84043

**Note**

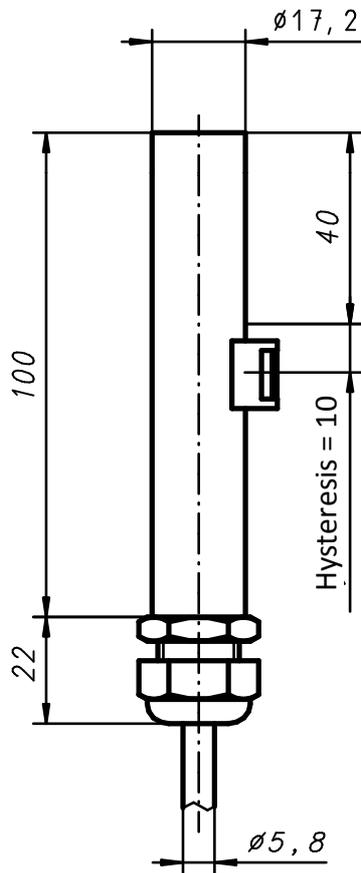
The switch is maintenance free.

**External electrical connections**



- Installed opposite to indication rail
- Cable exit downwards

**Dimensions**



**Function**

**Magnetic switch for  
WEKA Visual Level Indicators**

The magnetic switch is mounted outside of the float chamber opposite to the indication rail. The switching logic can be reversed by inverting the switch module with cable-exit upwards or by installing the switch module adjacent to the indication rail where technically authorised (see datasheet 20010501).

The magnet inside the float activates the reed switch, when the liquid in the float chamber reaches that level.

Monitoring of short or open circuits is possible through the continuous resistor network from the Namur-switch circuit.

Please refer to the safety guidelines.

<b>Product code</b>	<b>(standard)</b>	<b>31130-NA-NAM/3</b>	<b>with 3m cable</b>
		<b>31130-NA-NAM/5</b>	<b>with 5m cable</b>
		<b>31130-NA-NAM/10</b>	<b>with 10m cable</b>
		<b>31130-NA-NAM/20</b>	<b>with 20m cable</b>

**Switching logic**

**on/off, bistable**  
with Namur- Resistor network

**Contact rating**

U <sub>i</sub> =	max.	10.6V
I <sub>i</sub> =	max.	60mA
P <sub>i</sub> =	max.	200mW
C <sub>i</sub> =	max.	250pF
L <sub>i</sub> =	max.	5uH

**Enclosure**

IP68 - 5bar (EN 60529)

**Material**

Housing	Stainless steel 316 /316L
Cable gland	PA6: blue, 4...8mm
Seal	Perbunan (NBR)
Cable	LiYCY/EB: blue, Ø5.8mm (110pF, 0.7µH/m)
Shield	shielded, but not connected
Cable cores	2 x 0,75mm <sup>2</sup>
Core colours	WH, BN
Type label	Polyester: silver, black printing

**Operating conditions**

Media temperature	Ambient temperature
-50°C...+150°C	-20°C...+80°C

Media temperature  
Ambient temperature

Temperature of liquid within the float chamber  
Temperature of air around the magnetic switch

**Fixation**

When ordering level indicators with switches, hose clamps are included.

When ordering switches as spare parts, hose clamps are never included and must be ordered separately.

In case of ordering hose clamps pipe size must be indicated:

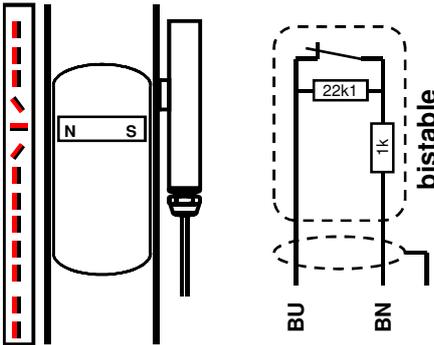
For pipe diameter	30...40mm	Article no.	80648
For pipe diameter	40...57mm and 57...80mm	Article no.	84043

**Note**

According to IEC EN60079, §5.7, the switch is considered as a simple operating apparatus [Ex ia] and may be used in explosion hazard area. It is NOT type approved according to the rules 94/9/EC!

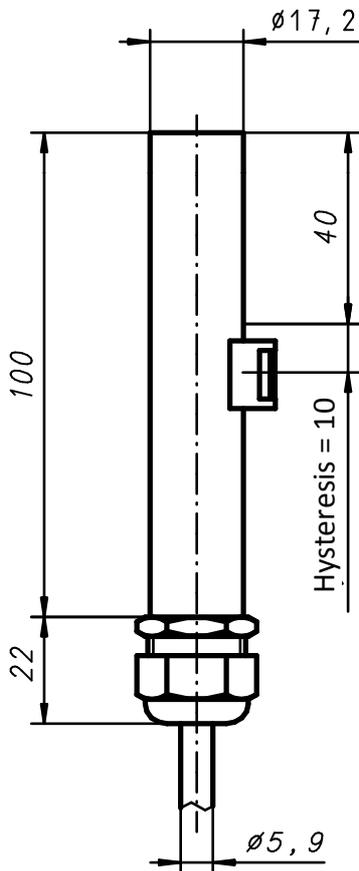
For the evaluation of the NAMUR circuit with a complimentary intrinsically safe operating apparatus [Ex ia] we recommend a switch amplifier from the company Stahl, (i.e. Type 9170-...-...) (Further information can be obtained from WEKA)

External electrical connections



- Installed opposite to indication rail
- Cable exit downwards

Dimensions



Function

Magnetic switch for WEKA Visual Level Indicators

The magnetic switch is mounted outside of the float chamber opposite to the indication rail. The switching logic can be reversed by inverting the switch module with cable-exit upwards or by installing the switch module adjacent to the indication rail where technically authorised (see datasheet 20010501).

The magnet inside the float activates the reed switch, when the liquid in the float chamber reaches that level.

Monitoring of short or open circuits is possible through the continuous resistor network from the Namur-switch circuit.

Please refer to the safety guidelines.

<b>Product code</b>	<b>(standard)</b>	<b>31130-NW-NAM/3</b>	<b>with 3m cable</b>
		<b>31130-NW-NAM/5</b>	<b>with 5m cable</b>
		<b>31130-NW-NAM/10</b>	<b>with 10m cable</b>
		<b>31130-NW-NAM/20</b>	<b>with 20m cable</b>

Switching logic

on/off, bistable  
with Namur- Resistor network

Contact rating

U <sub>i</sub> =	max.	10.6V
I <sub>i</sub> =	max.	60mA
P <sub>i</sub> =	max.	200mW
C <sub>i</sub> =	max.	250pF
L <sub>i</sub> =	max.	5uH

Enclosure

IP68 - 5bar (EN 60529)

Material

Housing	Stainless steel 316 /316L
Cable gland	Brass: nickel-plated, 5...10mm
Seal	Fluoroelastomere (FKM)
Cable	Silicone: Si-SL-O, red, $\varnothing$ 5.9mm
Shield	not shielded
Cable cores	2 x 0,75mm <sup>2</sup>
Core colours	BU, BN
Type label	Alu: silver, black printing

Operating conditions

Media temperature	Ambient temperature
-50 °C...+250 °C	-20 °C...+80 °C

Media temperature  
Ambient temperature

Temperature of liquid within the float chamber  
Temperature of air around the magnetic switch

Fixation

When ordering level indicators with switches, hose clamps are included.

When ordering switches as spare parts, hose clamps are never included and must be ordered separately.

In case of ordering hose clamps pipe size must be indicated:

For pipe diameter	30...40mm	Article no.	80648
For pipe diameter	40...57mm and 57...80mm	Article no.	84043

Note

According to IEC EN60079, §5.7, the switch is considered as a simple operating apparatus [Ex ia] and may be used in explosion hazard area. It is NOT type approved according to the rules 94/9/EC!

For the evaluation of the NAMUR circuit with a complimentary intrinsically safe operating apparatus [Ex ia] we recommend a switch amplifier from the company Stahl, (i.e. Type 9170-...-...) (Further information can be obtained from WEKA)