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31130-NI 2)	32298	SPST	-50°C ÷ +150°C	250V/1.3A/80VA/80W	II 2 G Ex ib IIC T6ë T3 Gb II 2 D Ex ib IIIC T85°C ÷ T200°C Db	20
31160-NI 2)	32299	SPDT	-50°C ÷ +150°C	230V/1A/60VA/60W	SEV 22 ATEX 0586 / IECEx SEV 22.0002	21
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31130-NA-NAM 1)2)		SPST	-50°C ÷ +150°C	10,6V/60mA/200mW	with NAMUR circuit	28
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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

31ë -Në -ë

130

160

N

N

S

M

D

I

K or P

T

B

A

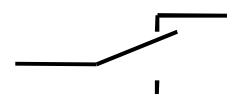
W

NAM

SPST - Single Pole / Single Trace



SPDT - Single Pole / Double Trace



1) shielded cable

2) halogen-free cable



Mounting

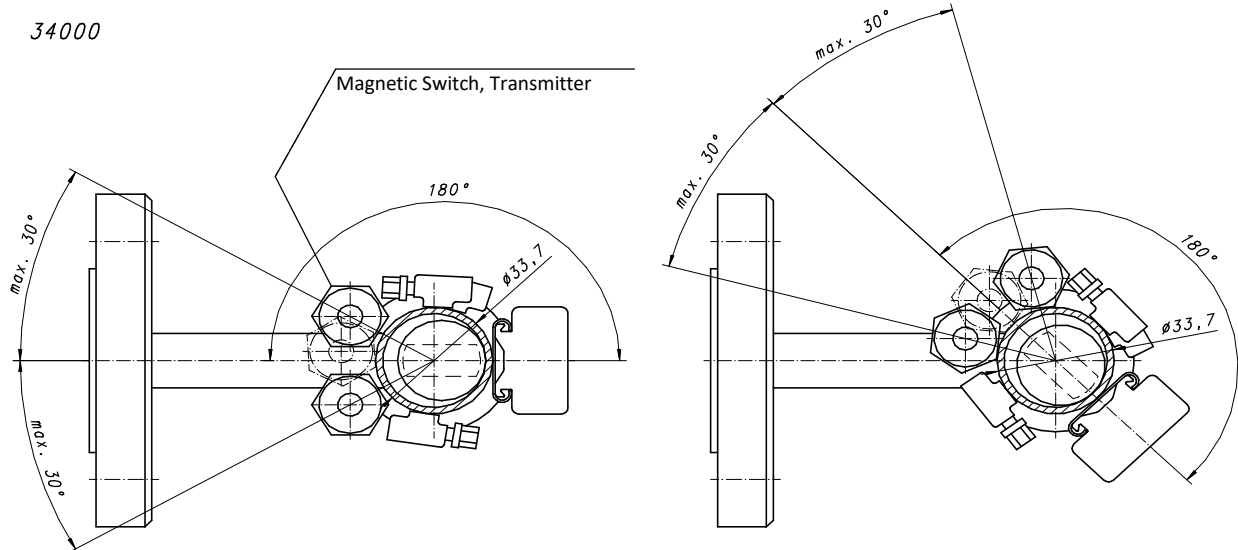
Normal: Valid is the indicated switching function on the type label (float below switch).
Installation 180 °C opposite of the indication rail with the permitted tolerance according to the tube diameter (refer to layout below)
Cable exit downwards

Variation: Each of the following variations lead to a reversion of the indicated switching logic

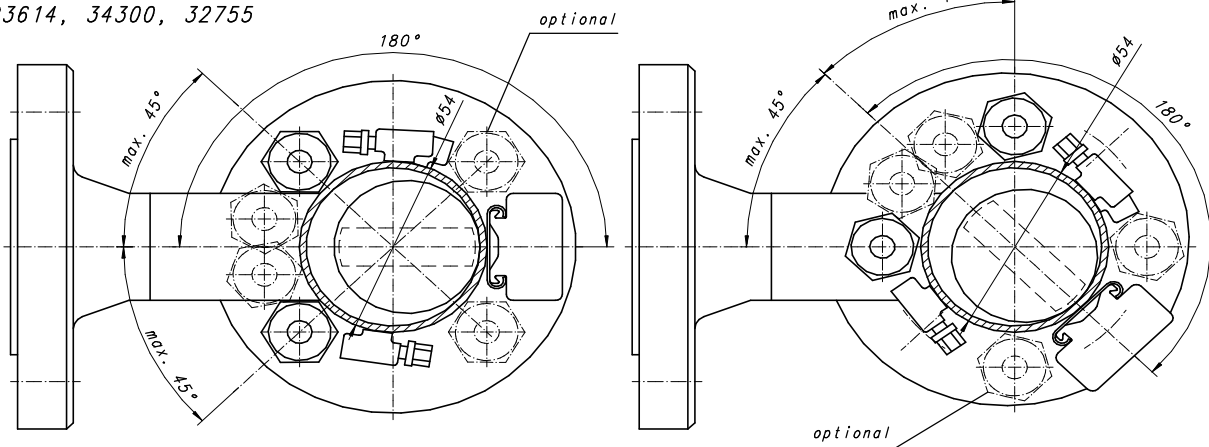
Mounting with cable exit upwards

Mounting adjacent to the indication rail

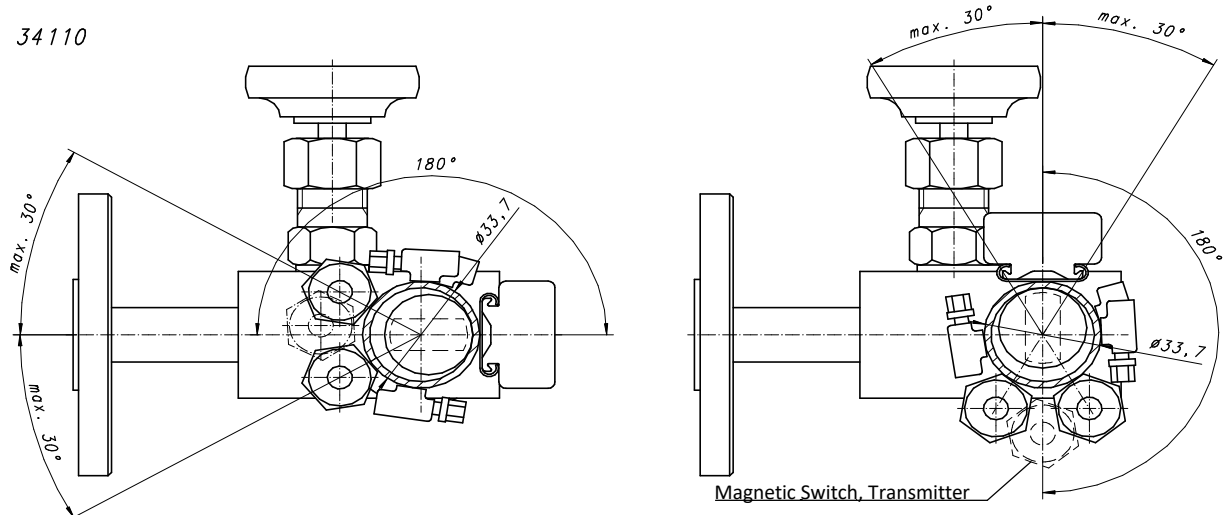
34000



23614, 34300, 32755



34110



Caution:

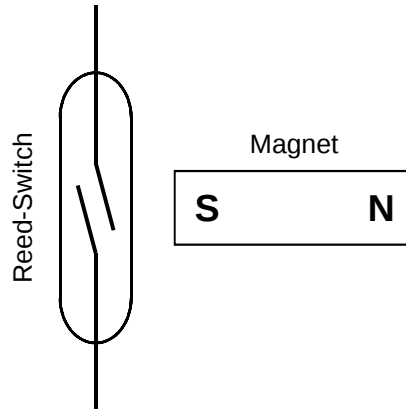
Read this information before installing the magnetic level indicator including magnetic switches. The use of magnetic switches with inappropriate contact ratings can result in damage to the switches and malfunctioning of the level indicator. For Ex rated magnetic switches (-NI / -ND) it is necessary 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 -NP	
	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 -NP	
	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.

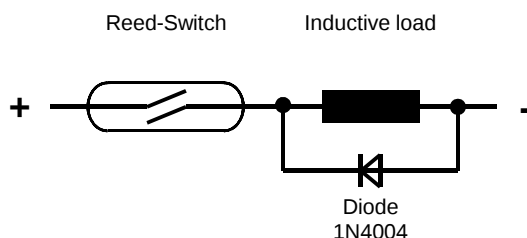
Caution:

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:

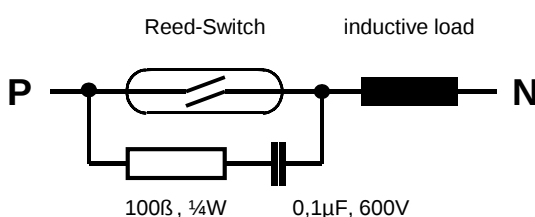
Figure 1 (D.C.)



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.

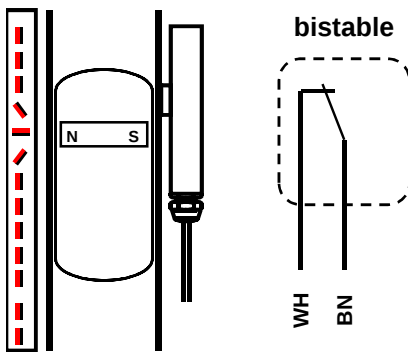
Figure 2 (A.C.)



For A.C. applications:

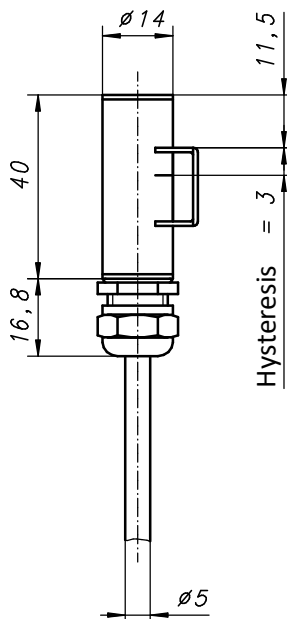
A resistor and capacitor in series connected parallel to the switch forms a high impedance path at normal A.C. frequencies. This impedance turns low at high frequencies, diverting spike currents from the switch.

External electrical connections



Ç Installed opposite to indication rail
Ç Cable exit downwards

Dimensions



Instruction manual

Function Magnetic switch for WEKA- VLI

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	(standard)	37557/3	with 3m cable
		37557/5	with 5m cable
		37557/10	with 10m cable
		37557/20	with 20m cable

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, 3ë 6mm
Seal	Neoprene (CR), Perbunan (NBR)
Cable	LiYY: grey, Ø 5.2mm
Shield	not shielded
Cable cores	2 x 0,50mm ²
Core colours	WH, BN
Type label	Polyester: silver, black printing

Operating conditions

Media temperature	Ambient temperature
-50°Cë +150°C	-20°Cë +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	30ë 40mm	Article no.	89249
For pipe diameter	40ë 57mm and 57ë 80mm	Article no.	89250

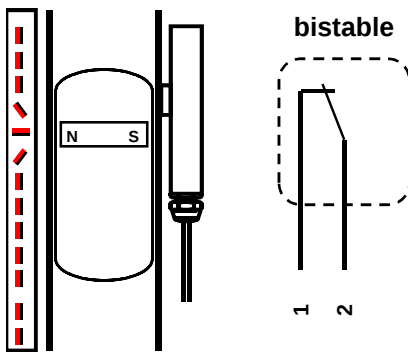
Note

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.

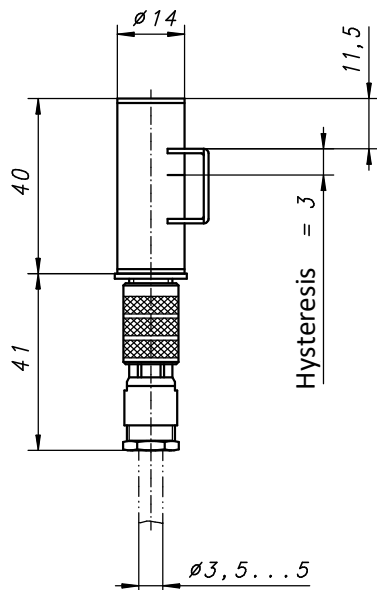
The switch is maintenance free.

External electrical connections



Ç Installed opposite to indication rail
Ç Cable exit downwards

Dimensions



Instruction manual

Function Magnetic switch for WEKA- VLI

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. 0.25mm² / 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

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. 89249

For pipe diameter 40 ÷ 57mm and 57 ÷ 80mm Article no. 89250

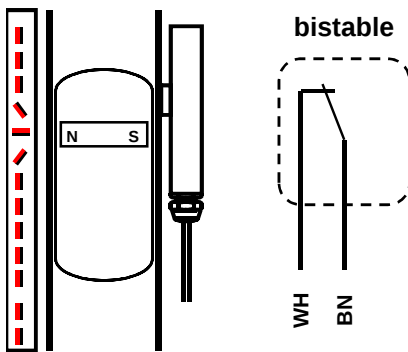
Note

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.

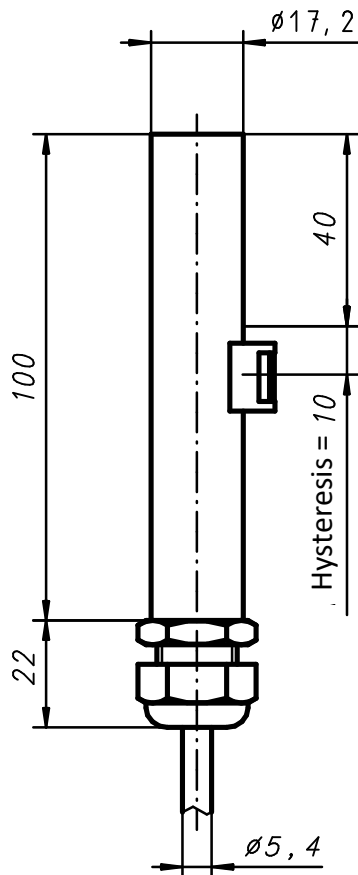
The switch is maintenance free.

External electrical connections



Ç Installed opposite to indication rail
Ç Cable exit downwards

Dimensions



Instruction manual

Function Magnetic switch for WEKA- VLI

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	(standard)	31130-NN/3	with 3m cable
		31130-NN/5	with 5m cable
		31130-NN/10	with 10m cable
		31130-NN/20	with 20m cable

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, 3ø 8mm
Insert	Perbunan (NBR)
Cable	LiYY: grey, Ø 5.4mm
Shield	not shielded
Cable cores	2 x 0,75mm ²
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.

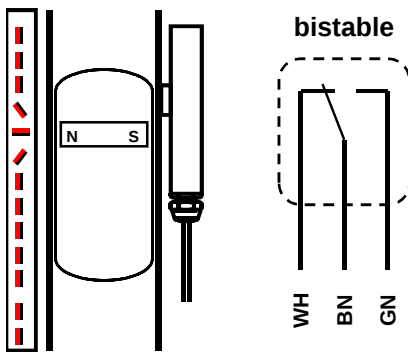
In case of ordering hose clamps pipe size must be indicated:

For pipe diameter	30ø 40mm	Article no.	89249
For pipe diameter	40ø 57mm and 57ø 80mm	Article no.	89250

Note

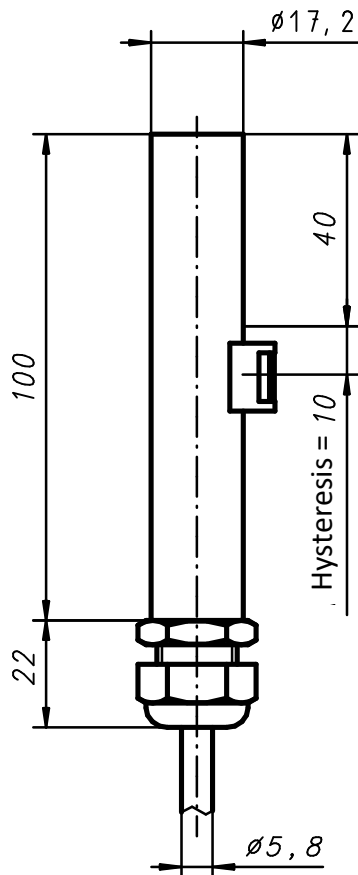
The switch is maintenance free.

External electrical connections



Ç Installed opposite to indication rail
Ç Cable exit downwards

Dimensions



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. 89249
For pipe diameter 40 ÷ 57mm and 57 ÷ 80mm Article no. 89250

Note

The switch is maintenance free.

Instruction manual

Function Magnetic switch for WEKA- VLI

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	(standard)	31160-NN/3	with 3m cable
		31160-NN/5	with 5m cable
		31160-NN/10	with 10m cable
		31160-NN/20	with 20m cable

Switching logic

Change-over, bistable

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

Enclosure

IP68 - 5bar (EN 60529)

Material

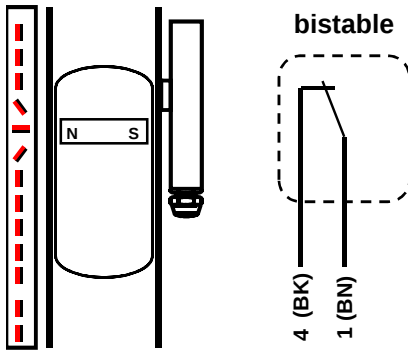
Housing	Stainless steel 316 /316L
Cable gland	PA6: grey, 3ø 8mm
Seal	Perbunan (NBR)
Cable	LiYY: grey, Ø 5.8mm
Shield	not shielded
Cable cores	3 x 0,75mm ²
Core colours	WH, BN, GN
Type label	Polyester: silver, black printing

Operating conditions

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

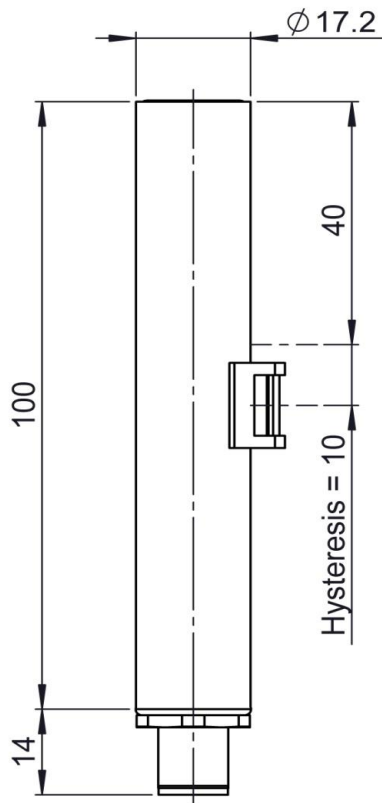
Media temperature	Temperature of liquid within the float chamber
Ambient temperature	Temperature of air around the magnetic switch

External electrical connections



Ç Installed opposite to indication rail
Ç Connector downwards
Ç() colours for IEC 61076-2-101 cabling

Dimensions



Instruction manual

Function Magnetic switch for WEKA VLI

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 connector 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-NP

Switching logic on/off, bistable SPST

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

Enclosure IP68 - 5bar (EN 60529)

Material
Housing Stainless steel 316 /316L
Connector M12 A, IEC 61076-2-101 (4 pole)
Zinc die-cast, Nickel plated
PA (Polyamide)

Type label Polyester: white, black printing

Operating conditions

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

Media temperature Temperature of liquid within the float chamber
Ambient temperature Temperature of air around the magnetic switch

Accessorie counter plug



acc. price list
material PA (Polyamide), IP67
for cable diameter 6ë 8mm
screwed terminals 0.75qmm
straight or angled

Fixation

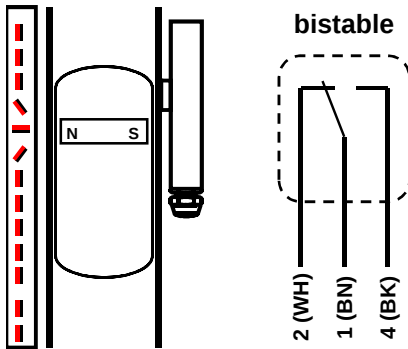
When ordering level indicators with switches, hose clamps are included.
When ordering switches as spare parts, hose clamps are never included and must be ordered separately.
In case of ordering hose clamps pipe size must be indicated:

For pipe diameter 30ë 40mm Article no. 89249
For pipe diameter 40ë 57mm and 57ë 80mm Article no. 89250

Note

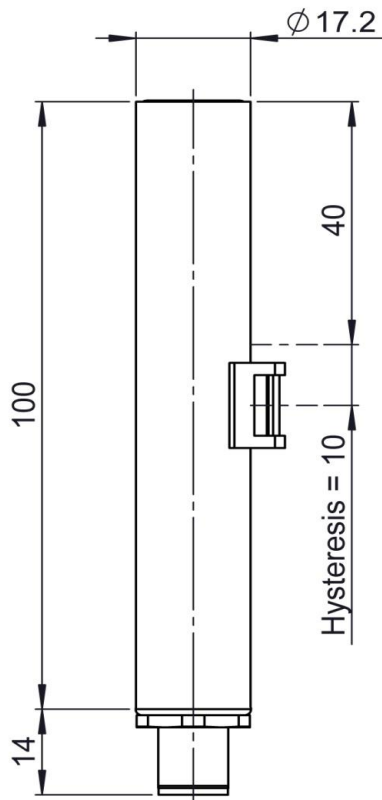
The switch is maintenance free.

External electrical connections



Ç Installed opposite to indication rail
Ç Connector downwards
Ç() colours for IEC 61076-2-101 cabling

Dimensions



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. 89249
For pipe diameter 40 ÷ 57mm and 57 ÷ 80mm Article no. 89250

Note

The switch is maintenance free.

Instruction manual

Function Magnetic switch for WEKA VLI

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 connector 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-NP

Switching logic Change-over, bistable SPDT

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

Enclosure IP68 - 5bar (EN 60529)

Material

Housing Stainless steel 316 /316L
Connector M12 A, IEC 61076-2-101 (4 pole)
Zinc die-cast, Nickel plated
PA (Polyamide)

Type label Polyester: white, black printing

Operating conditions

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

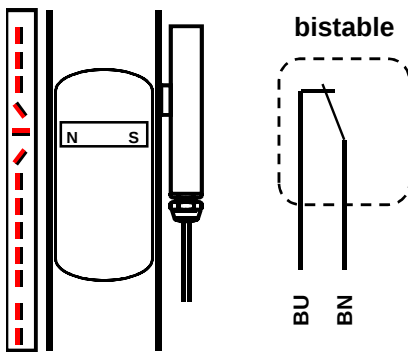
Media temperature Temperature of liquid within the float chamber
Ambient temperature Temperature of air around the magnetic switch

Accessorie counter plug



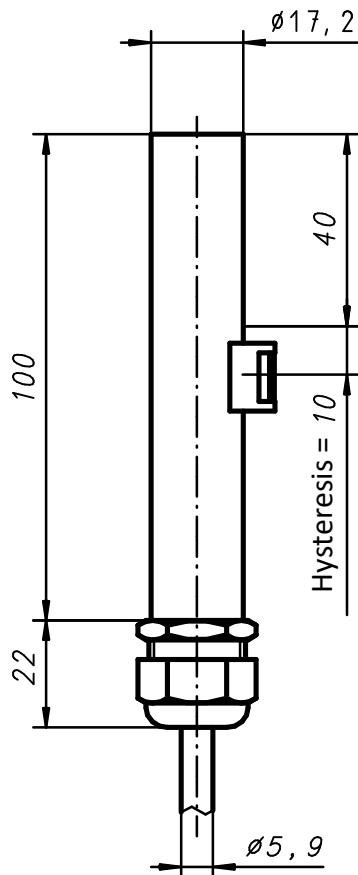
acc. price list
material PA (Polyamide), IP67
for cable diameter 6 ÷ 8mm
screwed terminals 0.75qmm
straight or angled

External electrical connections



Ç Installed opposite to indication rail
Ç Cable exit downwards

Dimensions



Instruction manual

Function Magnetic switch for WEKA- VLI

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	(standard)	31130-NW/3	with 3m cable
		31130-NW/5	with 5m cable
		31130-NW/10	with 10m cable
		31130-NW/20	with 20m cable

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 $\times$ 8mm
Seal	Fluoroelastomere (FKM)
Cable	Silicone: Si-SL-O, red, $\varnothing$ 5.9mm
Shield	not shielded
Cable cores	2 x 0,75mm ²
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.

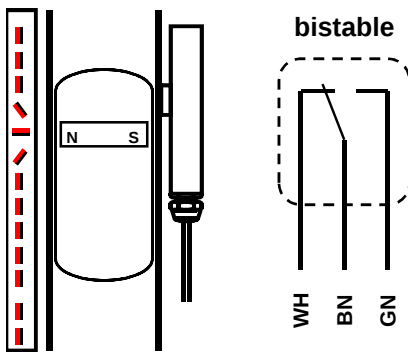
In case of ordering hose clamps pipe size must be indicated:

For pipe diameter	30 $\hat{e}$ 40mm	Article no.	89249
For pipe diameter	40 $\hat{e}$ 57mm and 57 $\hat{e}$ 80mm	Article no.	89250

Note

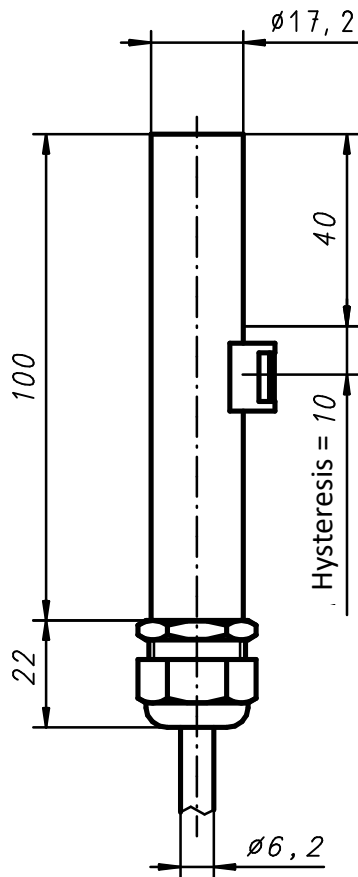
The switch is maintenance free.

External electrical connections



Ç Installed opposite to indication rail
Ç Cable exit downwards

Dimensions



Instruction manual

Function Magnetic switch for WEKA- VLI

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	(standard)	31160-NW/3	with 3m cable
		31160-NW/5	with 5m cable
		31160-NW/10	with 10m cable
		31160-NW/20	with 20m cable

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 $\times$ 8mm
Seal	Fluoroelastomere (FKM)
Cable	Silicone: Si-SL-O, red, $\varnothing$ 6.2mm
Shield	not shielded
Cable cores	3 x 0,75mm ²
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	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.

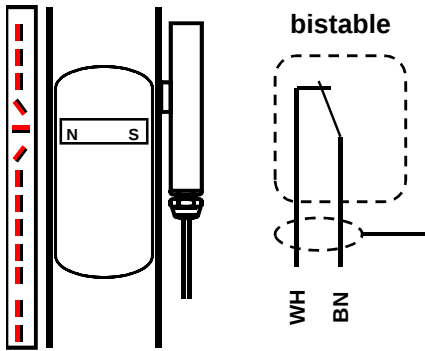
In case of ordering hose clamps pipe size must be indicated:

For pipe diameter	30 $\hat{O}$ 40mm	Article no.	89249
For pipe diameter	40 $\hat{O}$ 57mm and 57 $\hat{O}$ 80mm	Article no.	89250

Note

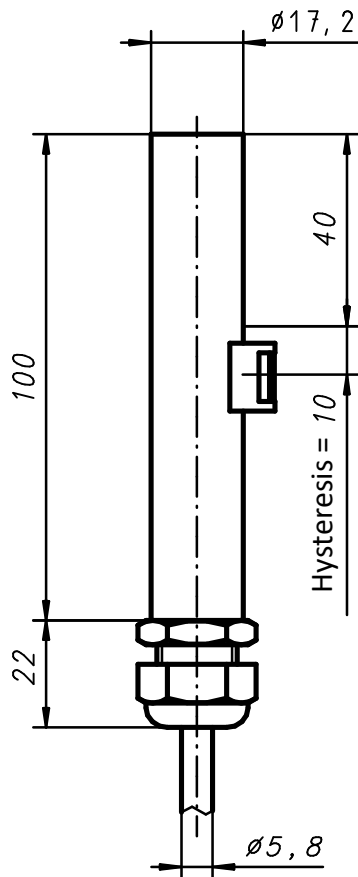
The switch is maintenance free.

External electrical connections



Ç Installed opposite to indication rail
Ç Cable exit downwards

Dimensions



Instruction manual

Function Magnetic switch for WEKA- VLI

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	(standard)	31130-NA/3	with 3m cable
		31130-NA/5	with 5m cable
		31130-NA/10	with 10m cable
		31130-NA/20	with 20m cable

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, 3ø 8mm
Seal	Perbunan (NBR)
Cable	LiYCY/EB: blue, Ø 5.8mm
Shield	shielded, but not connected
Cable cores	2 x 0,75mm ²
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.

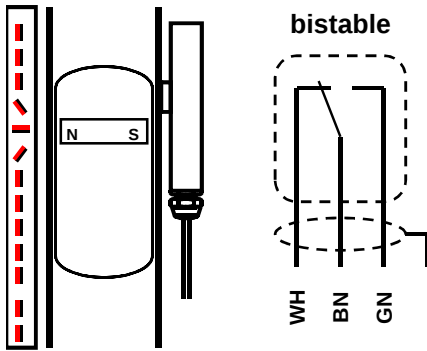
In case of ordering hose clamps pipe size must be indicated:

For pipe diameter	30ø 40mm	Article no.	89249
For pipe diameter	40ø 57mm and 57ø 80mm	Article no.	89250

Note

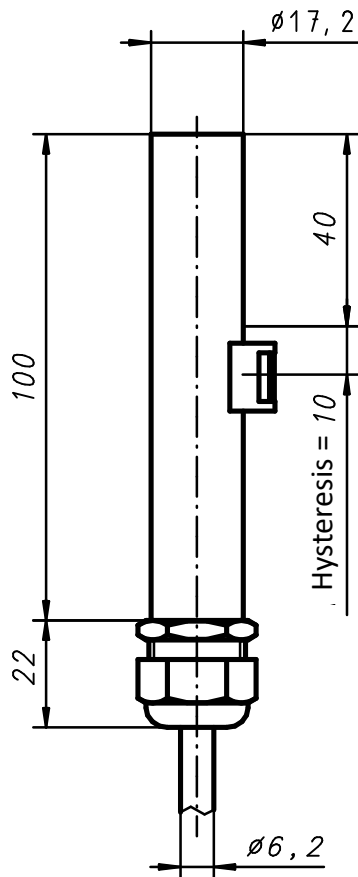
The switch is maintenance free.

External electrical connections



Ç Installed opposite to indication rail
Ç Cable exit downwards

Dimensions



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.	89249
For pipe diameter	40 ÷ 57mm and 57 ÷ 80mm	Article no.	89250

Note

The switch is maintenance free.

Instruction manual

Function Magnetic switch for WEKA- VLI

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	(standard)	31160-NA/3	with 3m cable
		31160-NA/5	with 5m cable
		31160-NA/10	with 10m cable
		31160-NA/20	with 20m cable

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, 3ø 8mm
Seal	Perbunan (NBR)
Cable	LiYCY/EB: blue, Ø 6.2mm
Shield	shielded, but not connected
Cable cores	3 x 0,75mm ²
Core colours	WH, BN, GN
Type label	Polyester: silver, black printing

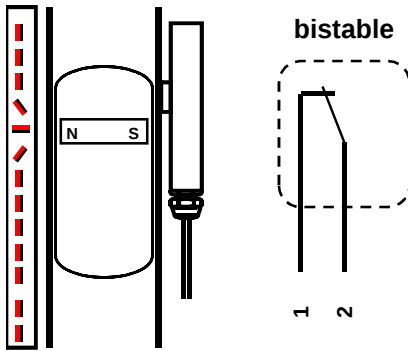


Operating conditions

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

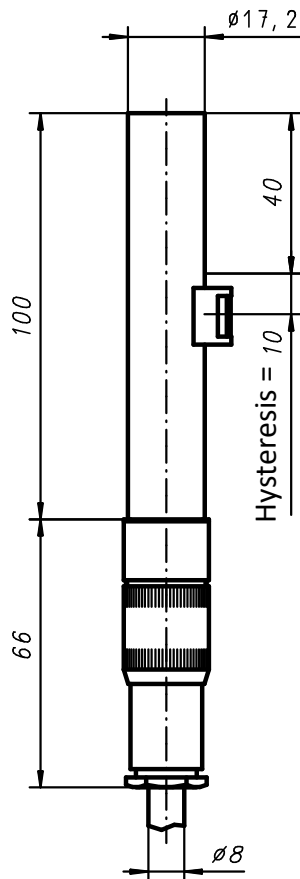
Media temperature	Temperature of liquid within the float chamber
Ambient temperature	Temperature of air around the magnetic switch

External electrical connections



Ç Installed opposite to indication rail
Ç Cable exit downwards

Dimensions



Instruction manual

Function Magnetic switch for WEKA- VLI

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

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.

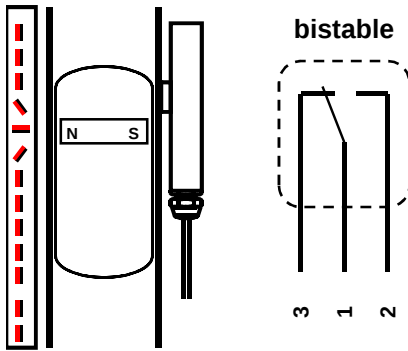
In case of ordering hose clamps pipe size must be indicated:

For pipe diameter 30÷ 40mm Article no. 89249
For pipe diameter 40÷ 57mm and 57÷ 80mm Article no. 89250

Note

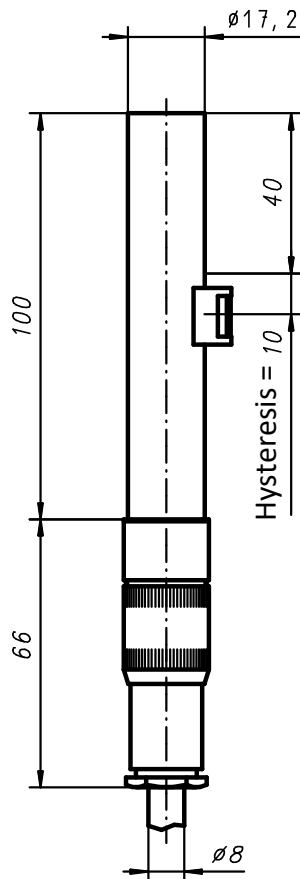
The switch is maintenance free.

External electrical connections



Ç Installed opposite to indication rail
Ç Cable exit downwards

Dimensions



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. 89249
For pipe diameter 40 ÷ 57mm and 57 ÷ 80mm Article no. 89250

Note

The switch is maintenance free.

Instruction manual

Function Magnetic switch for WEKA- VLI

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

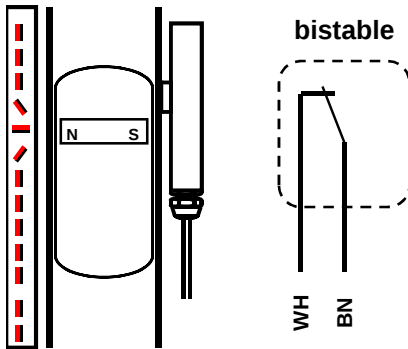
Media temperature

Temperature of liquid within the float chamber

Ambient temperature

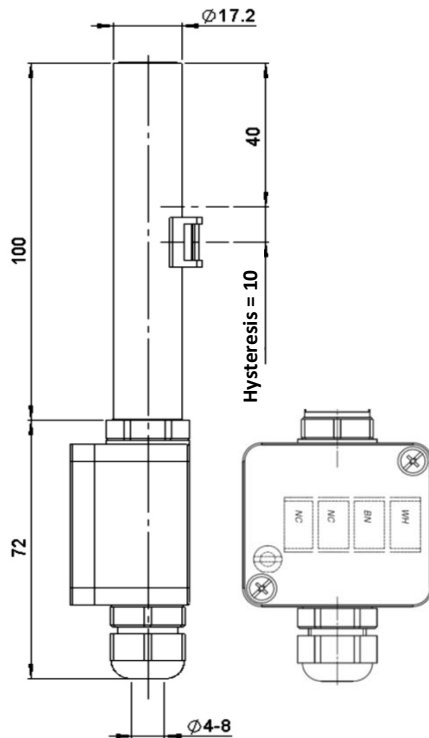
Temperature of air around the magnetic switch

External electrical connections



Ç Installed opposite to indication rail
Ç Cable exit downwards

Dimensions



Instruction manual

Function Magnetic switch for WEKA- VLI

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	4ø 8mm
Type label	Polyester: yellow, black printing

Operating conditions

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

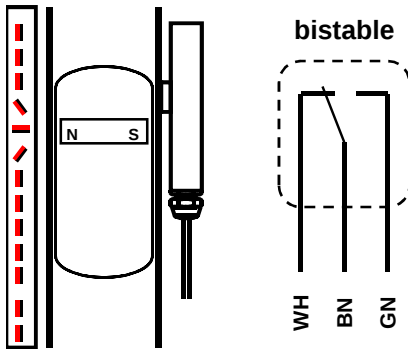
In case of ordering hose clamps pipe size must be indicated:

For pipe diameter	30ø 40mm	Article no.	89249
For pipe diameter	40ø 57mm and 57ø 80mm	Article no.	89250

Note

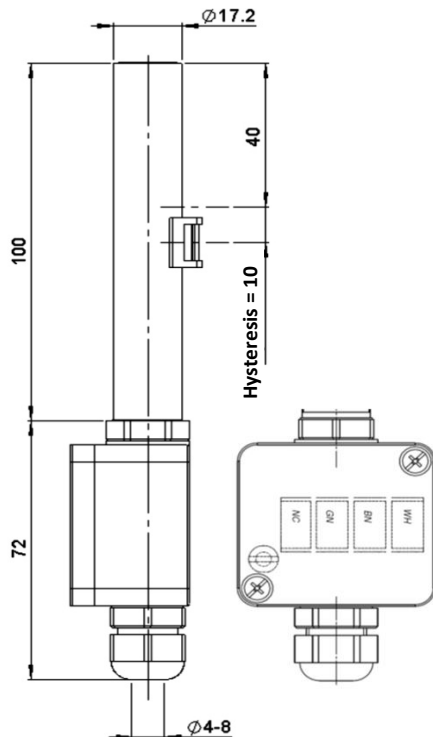
The switch is maintenance free.

External electrical connections



Ç Installed opposite to indication rail
Ç Cable exit downwards

Dimensions



Instruction manual

Function Magnetic switch for WEKA- VLI

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: 4ø 8mm
Type label: Polyester: yellow, black printing

Operating conditions

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

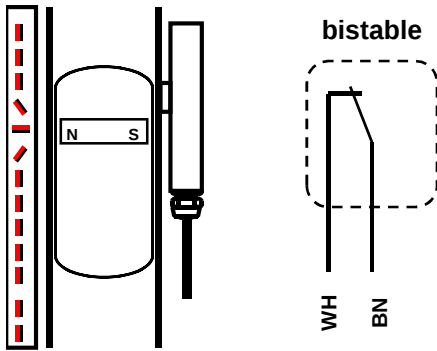
In case of ordering hose clamps pipe size must be indicated:

For pipe diameter 30ø 40mm Article no. 89249
For pipe diameter 40ø 57mm and 57ø 80mm Article no. 89250

Note

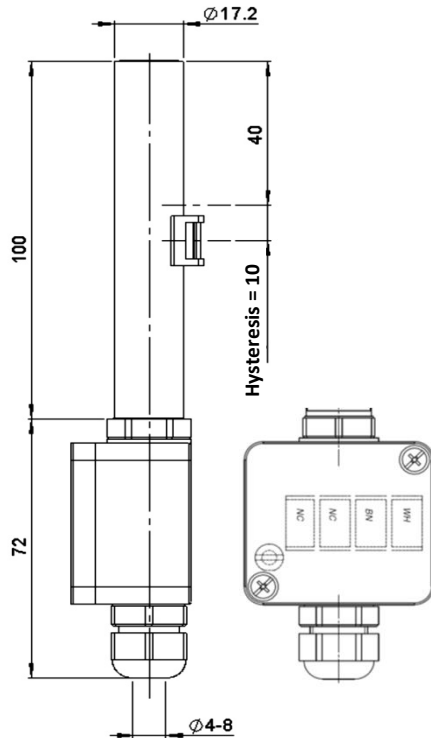
The switch is maintenance free.

External electrical connections



Ç Installed opposite to indication rail
Ç Cable exit downwards

Dimensions



Instruction manual

Function Magnetic switch for WEKA- VLI

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: 4ø 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.

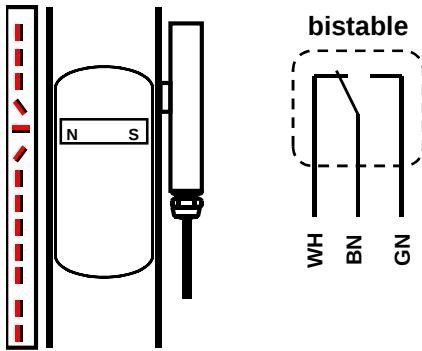
In case of ordering hose clamps pipe size must be indicated:

For pipe diameter 30ø 40mm Article no. 89249
For pipe diameter 40ø 57mm and 57ø 80mm Article no. 89250

Note

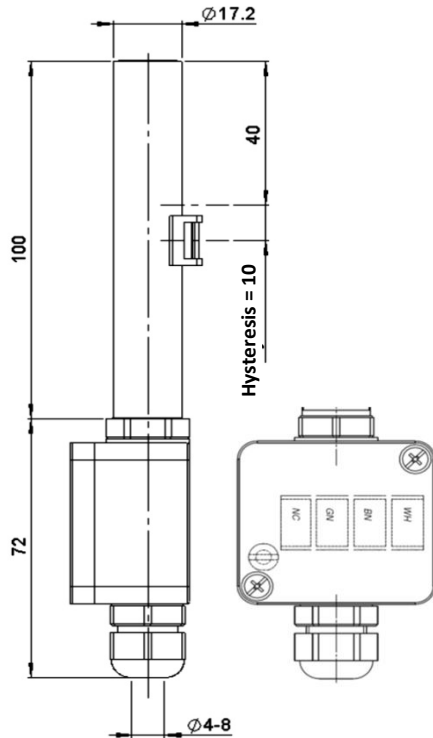
The switch is maintenance free.

External electrical connections



Ç Installed opposite to indication rail
Ç Cable exit downwards

Dimensions



Instruction manual

Function Magnetic switch for WEKA- VLI

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: 4ø 8mm
Type label: Alu: silver, black printing

Operating conditions

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

Media temperature: Temperature of liquid within the float chamber
Ambient temperature: Temperature of air around the magnetic switch

Fixation

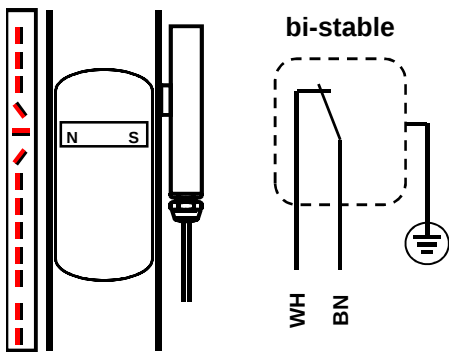
When ordering level indicators with switches, hose clamps are included.
When ordering switches as spare parts, hose clamps are never included and must be ordered separately.
In case of ordering hose clamps pipe size must be indicated:

For pipe diameter 30ø 40mm Article no. 89249
For pipe diameter 40ø 57mm and 57ø 80mm Article no. 89250

Note

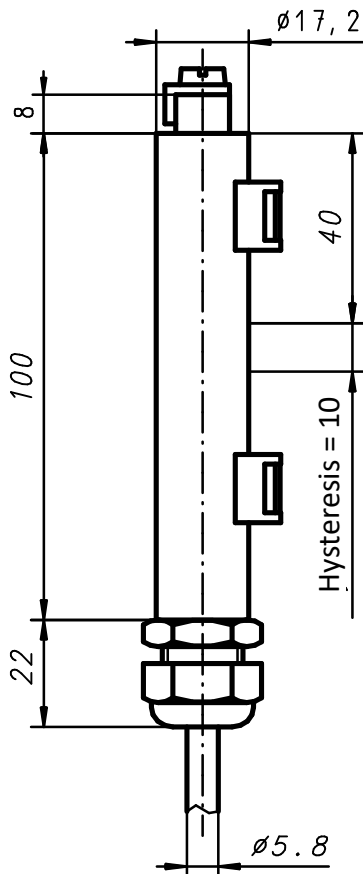
The switch is maintenance free.

External electrical connections



Ç Installed opposite to indication rail
Ç Cable exit downwards

Dimensions



Instruction manual

Function Magnetic switch for WEKA- VLI

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	(standard)	31130-NI/3	with 3m cable
		31130-NI/5	with 5m cable
		31130-NI/10	with 10m cable
		31130-NI/20	with 20m cable

Switching logic

on/off, bi-stable

Electrical data:

Only for connection to certified intrinsically safe circuits with the following maximum values:

$$U_i = 250V \quad I_i = 1.3A$$

The effective internal capacitance and inductance are negligibly small. Additionally the maximum effective capacitance and inductance of the firmly connected cable have to be considered with $C_i=110pF/m$ und $L_i=0.7\mu H/m$.

Certificate

SEV 22 ATEX 0586 / IECEx SEV 22.0002

Enclosure

IP68 - 10bar (EN 60529)

Material

Housing	Stainless steel 316 /316L
Cable gland	PA6: blue, 4ø 8mm
Seal	Perbunan (NBR)
Cable	blue, Ø 5.4mm, halogen free
Shield	shielded, but not connected
Cable cores	2 x 0,75mm ²
Core colours	WH, BN
Type label	Polyester: silver, black printing



Operating conditions

Media temperature	Ambient temperature	Temperature class
-50°C ÷ +150°C	-20°C ÷ +65°C	T3 (200°C)
-50°C ÷ +135°C	-20°C ÷ +65°C	T4 (135°C)
-50°C ÷ +100°C	-20°C ÷ +65°C	T5 (100°C)
-50°C ÷ +85°C	-20°C ÷ +65°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.

Only genuine parts have to be used as spare parts. In case of ordering hose clamps pipe size must be indicated:

For pipe diameter	30ø 40mm	Article no.	89249
For pipe diameter	40ø 57mm and 57ø 80mm	Article no.	89250

Note

EC- Type-Examination Certificate resp. IECEx CoC has additionally to be considered.

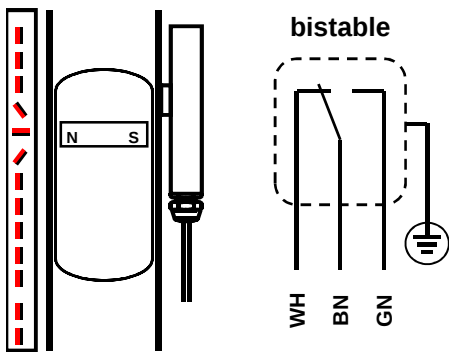
The cable must be durably installed. This device is maintenance free and repair work is prohibited.

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

Only to use in combination with thermal non-insulated float chamber.

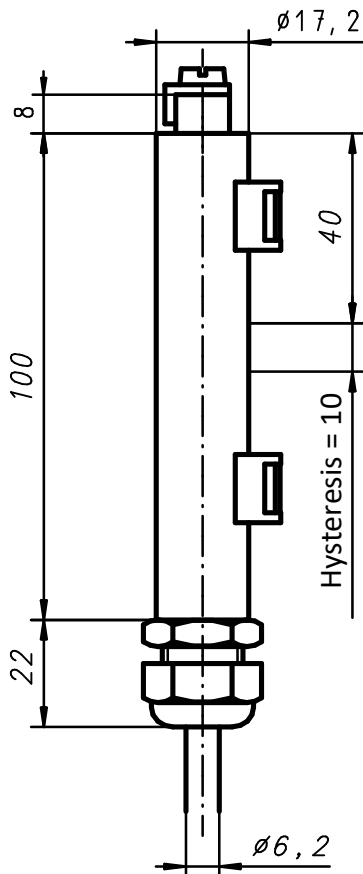
www.weka-ag.ch

External electrical connections



ÇInstalled opposite to indication rail
ÇCable exit downwards

Dimensions



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.

Only genuine parts have to be used as spare parts. In case of ordering hose clamps pipe size must be indicated:

For pipe diameter 30 to 40mm Article no. 89249

For pipe diameter	50 to 46mm	Article no.	89249
For pipe diameter	40 to 57mm and 57 to 80mm	Article no.	89250

Note

EC- Type-Examination Certificate resp. IECEX CoC has additionally to be considered.

www.weka-aq.ch

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

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

Only to use in combination with thermal non-insulated float chamber.

Instruction manual

Function	Magnetic switch for WEKA- VLI
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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	(standard)	31160-NI/3	with 3m cable
		31160-NI/5	with 5m cable
		31160-NI/10	with 10m cable
		31160-NI/20	with 20m cable

Switching logic

Change-over, bistable

Electrical data:

Only for connection to certified intrinsically safe circuits with the following maximum values: **U_i = 230V** **I_i = 1.0A**

$$U_i = 230V \quad I_i = 1.0A$$

The effective internal capacitance and inductance are negligibly small. Additionally the maximum effective capacitance and inductance of the firmly connected cable have to be considered with $C_i=110\text{pF/m}$ und $L_i=0.7\mu\text{H/m}$.

Certificate

SEV 22 ATEX 0586 / IECEx SEV 22.0002

Enclosure

IP68 - 10bar (EN 60529)



Material

Housing	Stainless steel 316 /316L
Cable gland	PA6: blue, 4ø 8mm
Seal	Perbunan (NBR)
Cable	blue, Ø 5.7mm, halogen free
Shield	shielded, but not connected
Cable cores	3 x 0,75mm ²
Core colours	WH, BN, GN
Type label	Polyester: silver, black printing

Operating conditions

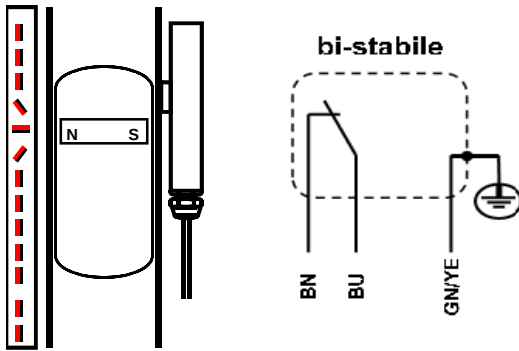
Media temperature	Ambient temperature	Temperature class
-50°C ÷ +150°C	-20°C ÷ +65°C	T3 (200°C)
-50°C ÷ +135°C	-20°C ÷ +65°C	T4 (135°C)
-50°C ÷ +100°C	-20°C ÷ +65°C	T5 (100°C)
-50°C ÷ +85°C	-20°C ÷ +65°C	T6 (85°C)

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.

External electrical connections



Ç Installed opposite to indication rail
Ç Cable exit downwards

Instruction manual

Function Magnetic switch for WEKA- VLI

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.

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

Switching logic

on/off, bistable

Contact rating

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

Certificate

SEV 22 ATEX 0605 / IECEx SEV 22.0010

Enclosure

IP66 & IP68 - 10bar (EN 60529)

Material

Housing	Stainless steel 316 /316L
Cable gland	Brass: nickel-plated, 7ø 9mm
Seal	Perbunan (NBR)
Cable	Silicon: red, Ø 7.4mm, largely resistant to oils/petroleum products
Shield	not shielded
Cable cores	3 x 1,0mm ² (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.

Only genuine parts have to be used as spare parts. In case of ordering hose clamps pipe size must be indicated:

For pipe diameter	30ø 40mm	Article no.	89249
For pipe diameter	40ø 57mm and 57ø 80mm	Article no.	89250

Note

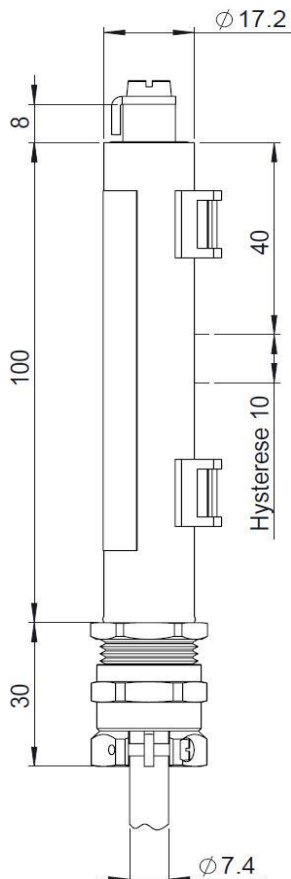
EC- Type-Examination Certificate resp. IECEx CoC has additionally to be considered.

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

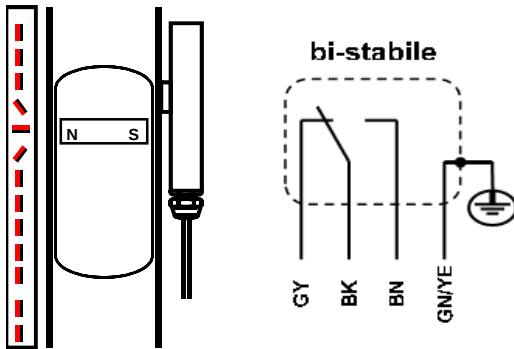
For use in areas with explosive dust consider the max. media temperature instead of max. surface temperature.

Only to use in combination with thermal non-insulated float chamber.

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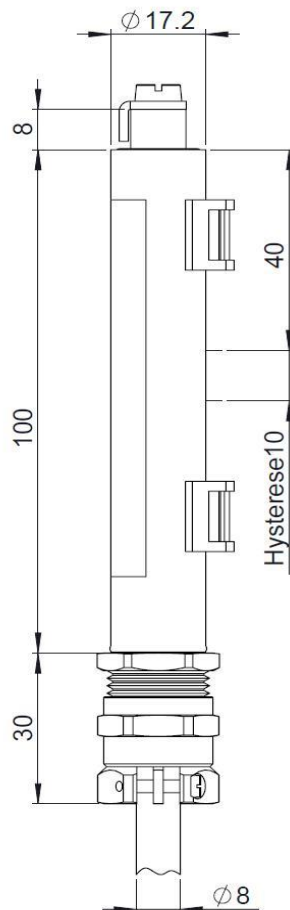


External electrical connections



ÇInstalled opposite to indication rail
ÇCable exit downwards

Dimensions



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.

Only genuine parts have to be used as spare parts. In case of ordering hose clamps pipe size must be indicated:

For pipe diameter 30÷ 40mm Article no. 89249

For pipe diameter	300÷40mm	Article no.	89249
For pipe diameter	40÷57mm and 57÷80mm	Article no.	89250

Note

EC- Type-Examination Certificate resp. IECEX CoC has additionally to be considered.

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

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

Only to use in combination with thermal non-insulated float chamber.

Instruction manual

Function	Magnetic switch for WEKA- VLI
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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.

Product code	(standard)	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

Certificate

SEV 22 ATEX 0605 / IECEx SEV 22.0010

Enclosure

IP66 & IP68 - 10bar (EN 60529)

Material

Housing	Stainless steel 316 /316L
Cable gland	Brass: nickel-plated, 7ø 9mm
Seal	Perbunan (NBR)
Cable	Silicon: red, Ø 8.0mm, largely resistant to oils/petroleum products
Shield	not shielded
Cable cores	4 x 1,0mm ² (3 + PE)
Core colours	BN, GY, BK, GN/YE
Type label	Polyester: silver, black printing



Operating conditions

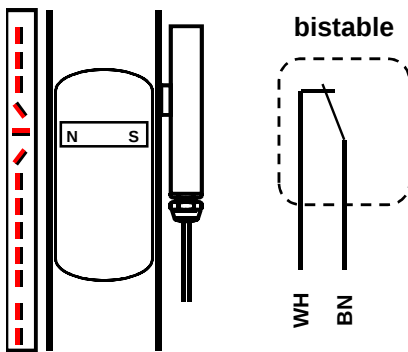
Media temperature	Ambient temperature	Temperature class
-50°Cë +150°C	-20°Cë +80°C	T3 (200°C)
-50°Cë +135°C	-20°Cë +80°C	T4 (135°C)
-50°Cë +100°C	-20°Cë +80°C	T5 (100°C)
-50°Cë +85°C	-20°Cë +80°C	T6 (85°C)

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

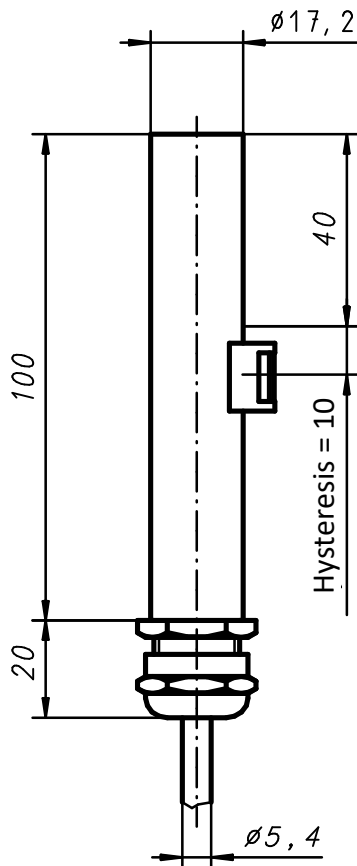
A connection to protection ground is only guaranteed if both fastening clamps are used to fix the magnetic switch to the float chamber. If the float chamber does not have electrical continuity to protective ground, or if only one fastening clamp can be used for fixing the switch, the connection must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

External electrical connections



Ç Installed opposite to indication rail
Ç Cable exit downwards

Dimensions



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.	89249
For pipe diameter	40 ÷ 57mm and 57 ÷ 80mm	Article no.	89250

Note

The switch is maintenance free.

Instruction manual

Function Magnetic switch for WEKA- VLI

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	(standard)	31130-NM/3	with 3m cable
		31130-NM/5	with 5m cable
		31130-NM/10	with 10m cable
		31130-NM/20	with 20m cable

Switching logic on/off, bistable

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

Enclosure IP68 - 5bar (EN 60529)

Material

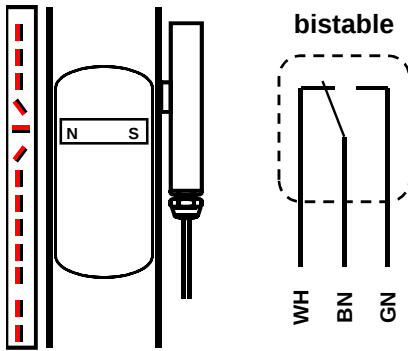
Housing	Stainless steel 316 /316L
Cable gland	Brass: nickel-plated, 5÷ 10mm
Seal	Perbunan (NBR)
Cable	LiYY: grey, Ø 5.4mm
Shield	not shielded
Cable cores	2 x 0,75mm ²
Core colours	WH, BN
Type label	Polyester: silver, black printing

Operating conditions

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

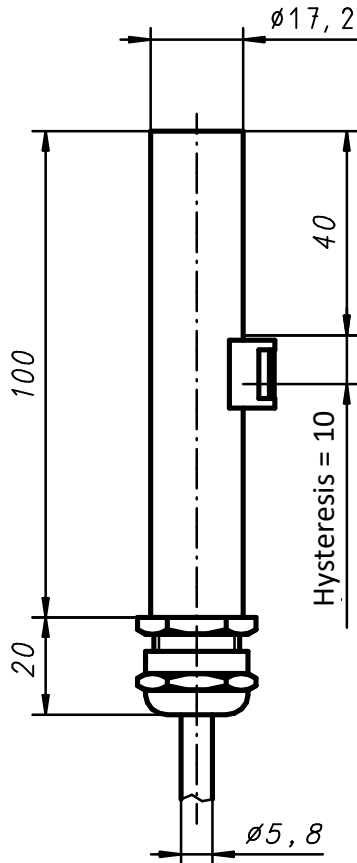
Media temperature	Temperature of liquid within the float chamber
Ambient temperature	Temperature of air around the magnetic switch

External electrical connections



Ç Installed opposite to indication rail
Ç Cable exit downwards

Dimensions



Instruction manual

Function Magnetic switch for WEKA- VLI

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	(standard)	31160-NM/3	with 3m cable
		31160-NM/5	with 5m cable
		31160-NM/10	with 10m cable
		31160-NM/20	with 20m cable

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, 5ë 10mm
Seal	Perbunan (NBR)
Cable	LiYY: grey, Ø 5.8mm
Shield	not shielded
Cable cores	3 x 0,75mm ²
Core colours	WH, BN, GN
Type label	Polyester: silver, black printing

Operating conditions

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

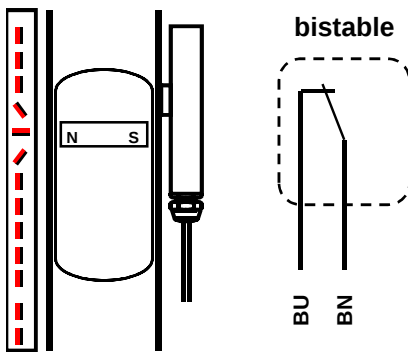
In case of ordering hose clamps pipe size must be indicated:

For pipe diameter	30ë 40mm	Article no.	89249
For pipe diameter	40ë 57mm and 57ë 80mm	Article no.	89250

Note

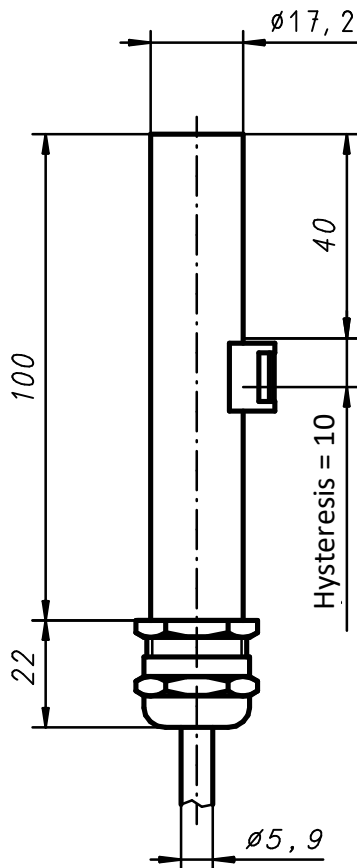
The switch is maintenance free.

External electrical connections



Ç Installed opposite to indication rail
Ç Cable exit downwards

Dimensions



Instruction manual

Function Magnetic switch for WEKA- VLI

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	(standard)	31130-NS/3	with 3m cable
		31130-NS/5	with 5m cable
		31130-NS/10	with 10m cable
		31130-NS/20	with 20m cable

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, 5ë 10mm
Seal	Fluorinated Propylene Monomere (FPM)
Cable	Silicone: Si-SL-O, red, Ø 5.9mm
Shield	not shielded
Cable cores	2 x 0,75mm ²
Core colours	BN, BU
Type label	Polyester: silver, black printing



Operating conditions

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

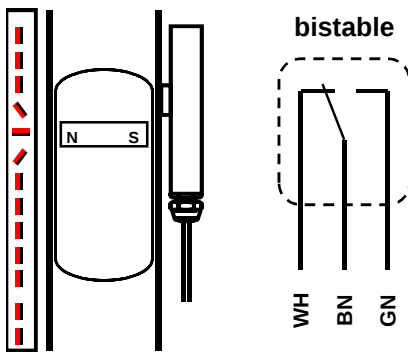
In case of ordering hose clamps pipe size must be indicated:

For pipe diameter	30ë 40mm	Article no.	89249
For pipe diameter	40ë 57mm and 57ë 80mm	Article no.	89250

Note

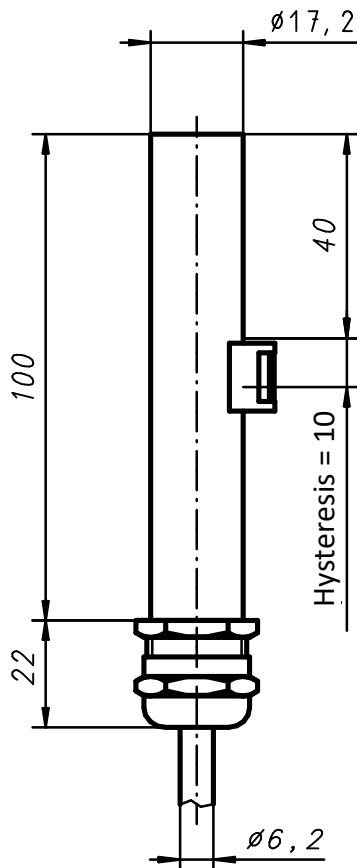
The switch is maintenance free.

External electrical connections



Ç Installed opposite to indication rail
Ç Cable exit downwards

Dimensions



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.	89249
For pipe diameter	40 ÷ 57mm and 57 ÷ 80mm	Article no.	89250

Note

The switch is maintenance free.

Instruction manual

Function Magnetic switch for WEKA- VLI

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	(standard)	31160-NS/3	with 3m cable
		31160-NS/5	with 5m cable
		31160-NS/10	with 10m cable
		31160-NS/20	with 20m cable

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, Ø 6.2mm
Shield	not shielded
Cable cores	3 x 0,75mm ²
Core colours	WH, BN, GN
Type label	Polyester: silver, black printing

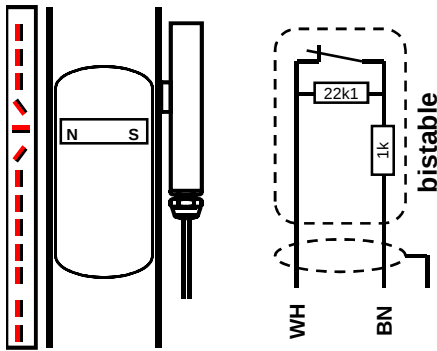


Operating conditions

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

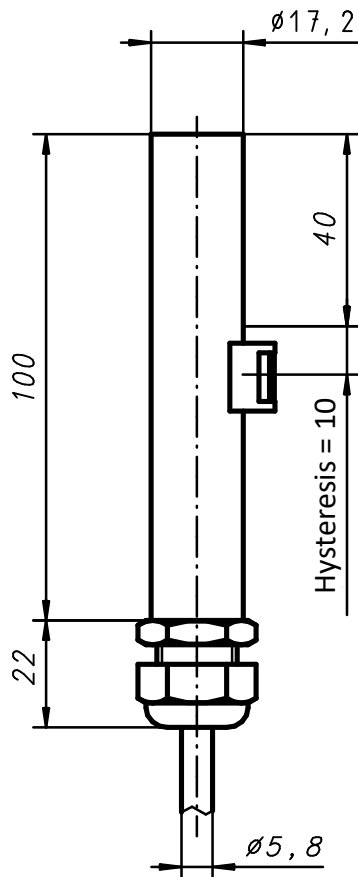
Media temperature	Temperature of liquid within the float chamber
Ambient temperature	Temperature of air around the magnetic switch

External electrical connections



Ç Installed opposite to indication rail
Ç Cable exit downwards

Dimensions



Instruction manual

Function Magnetic switch for WEKA- VLI

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.

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

Switching logic

on/off, bistable
with Namur- Resistor network

Contact rating

Ui =	max.	10.6V
Ii =	max.	60mA
Pi =	max.	200mW
Ci =	max.	250pF
Li =	max.	5uH

Enclosure

IP68 - 5bar (EN 60529)

Material

Housing	Stainless steel 316 /316L
Cable gland	PA6: blue, 4ø 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 ²
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:

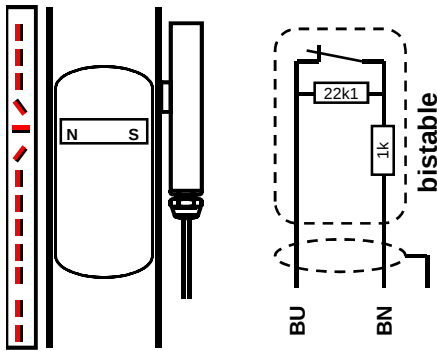
For pipe diameter	30ø 40mm	Article no.	89249
For pipe diameter	40ø 57mm and 57ø 80mm	Article no.	89250

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 2014/34/EU!

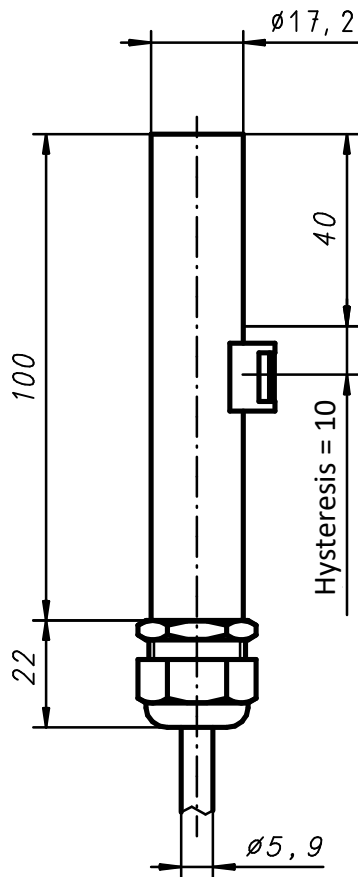
For the evaluation of the NAMUR circuit with a complimentary intrinsically safe operating apparatus [Ex ia] we recommend a switch amplifier from the company Stahl, (i.e. Type 9170-...-...) (Further information can be obtained from WEKA)

External electrical connections



Ç Installed opposite to indication rail
Ç Cable exit downwards

Dimensions



Instruction manual

Function Magnetic switch for WEKA- VLI

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.

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

Switching logic

on/off, bistable
with Namur- Resistor network

Contact rating

Ui = max. 10.6V
Ii = max. 60mA
Pi = max. 200mW
Ci = max. 250pF
Li = max. 5uH

Enclosure

IP68 - 5bar (EN 60529)

Material

Housing Stainless steel 316 /316L
Cable gland Brass: nickel-plated, 5 $\hat{e}$ 10mm
Seal Fluoroelastomere (FKM)
Cable Silicone: Si-SL-O, red, $\hat{O}$ 5.9mm
Shield not shielded
Cable cores 2 x 0,75mm²
Core colours BU, BN
Type label Alu: silver, black printing



Operating conditions

Media temperature	Ambient temperature
-50°C $\hat{e}$ +250°C	-20°C $\hat{e}$ +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 $\hat{e}$ 40mm Article no. 89249
For pipe diameter 40 $\hat{e}$ 57mm and 57 $\hat{e}$ 80mm Article no. 89250

Note

According to IEC EN60079, $\S$ 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 2014/34/EU!

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)