

PEAR SWITCH
TYPE : KL80/...

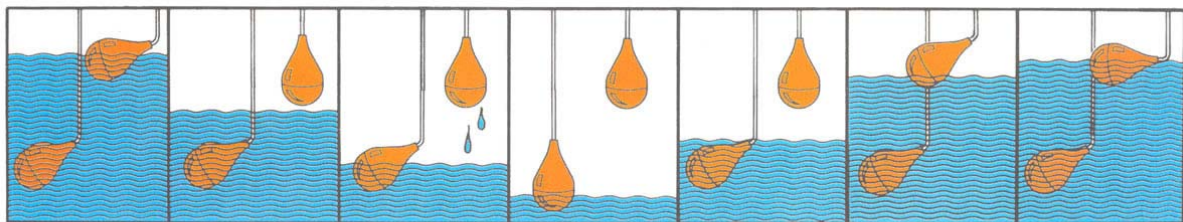
ADVANTAGES:

- The optimized shape of the pear avoids deposit.
- The change-over contact has a high breaking power ; his protection against shocks is due to a coating.
- A counterweight situated in the upper part of the pear ensures insensitivity to turbulences.
- The output of the connecting cable shows an excellent resistance against traction.



TYPE	KL 80
Specific weight:	0,95 - 1,05
Max. temperature:	80°C
Breaking power:	2 A / 250 V
Ingress protection:	IP 68
Cable cross section:	3 x 0,5 mm ²
Height / Diameter:	90 / 60 mm
Cable length:	5 / 10 / 20 m
Housing:	Polypropylène
Housing color:	orange
Cable:	PUR / PVC
Cable color:	orange

OPERATING PRINCIPLE:

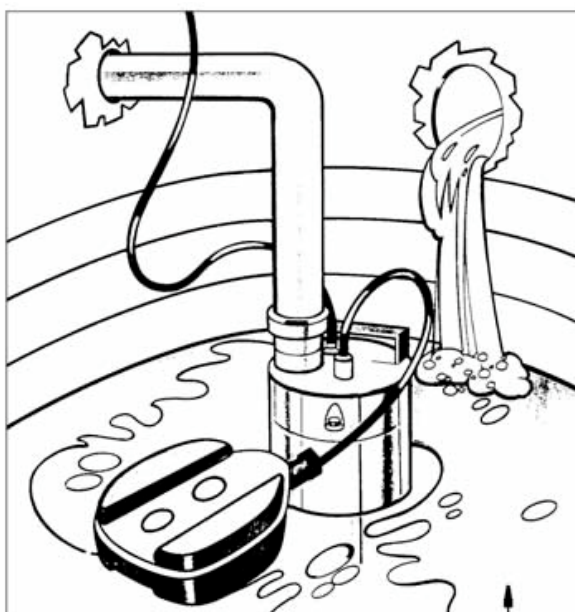
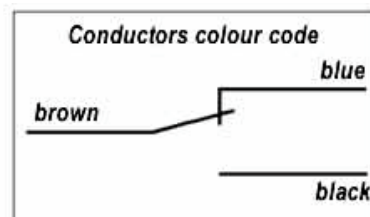


1. **Switch-on function:** the pear switch starts the pump.
2. so the liquid level lowers...
3. ...down to the lowest pre-selected position.
4. **Switch-off function:** the pear switch stops the pump.
5. with the inflow, the level rises...
6. ...up to the selected switch point
7. ...and the process restarts.

PEAR SWITCH **TYPE : KR1/...**

ADVANTAGES:

- Oversized impact resistance polypropylene body.
- Works in full-safety, even on frozen fluid, thanks to the connecting cable properties.
- Very flexible connecting cable, with excellent resistance in low temperature, VDE and SEV certified.
- The connecting cable output includes double tightness with stuffing-box and coating.
- A steel ball used as counterweight moves with the level and activates a change-over contact.



Application: control of a submerged pump
(example: flooded cave)

TYPE	KR1
Specific weight:	0,95 - 1,05
Max. temperature:	70°C
Breaking power:	(8) 10 A / 250 V
Ingress protection:	IP 68
Cable cross section:	3 x 1 mm ²
Height / Diameter:	130 / 110 mm
Cable length:	5 / 10 / 20 m
Housing:	Polypropylene
Housing color:	orange
Cable:	HOR7RN-F
Cable color:	black

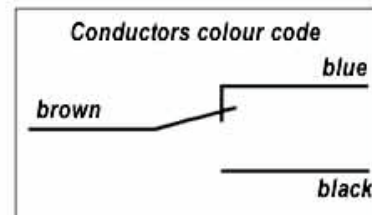
PEAR SWITCH TYPE : ZG6751/...

ADVANTAGES:

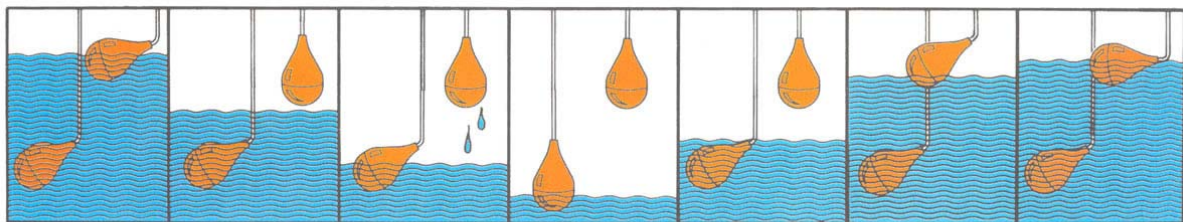
- The optimized shape of the pear avoids deposit.
- The change-over contact has a high breaking power ; his protection against shocks is due to a coating.
- A counterweight situated in the upper part of the pear ensures insensitivity to turbulences.
- The output of the connecting cable shows an excellent resistance against traction.



TYPE	ZG 6751
Specific weight:	0,95 - 1,05
Max. temperature:	80°C
Breaking power:	5 A / 250 V
Ingress protection:	IP 68
Cable cross section:	3 x 1 mm ²
Height / Diameter:	180 / 100 mm
Cable length:	5 / 10 / 20 m
Housing:	Polypropylene
Housing color:	orange
Cable:	PUR / PVC
Cable color:	orange



OPERATING PRINCIPLE:



1. **Switch-on function:** the pear switch starts the pump.
2. so the liquid level lowers...
3. ...down to the lowest pre-selected position.
4. **Switch-off function:** the pear switch stops the pump.
5. with the inflow, the level rises...
6. ...up to the selected switch point
7. ...and the process restarts.

PEAR SWITCH

TYPE : MS 1 C ELECTRONIC EX



EEx ia IIC T6

ADVANTAGES:

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- The change-over contact has a high breaking capacity ; his protection against shocks is due to a coating.
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- The output of the connecting cable shows an excellent resistance against traction.

For use in intrinsically safe electrical circuits in pump stations in explosion hazard areas according to ATEX 95.

The pear switch MS 1 ELECTRONIC EX may be used in zone 0, zone 1 and zone 2 in gas groups IIA, IIB and IIC, in temperature classes T1 to T6, where there is an explosion hazard.

APPROVAL:

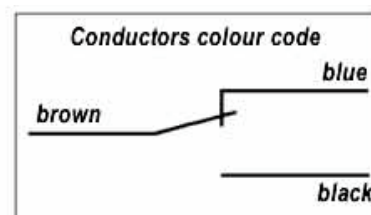
SNCH 01 ATEX 3249



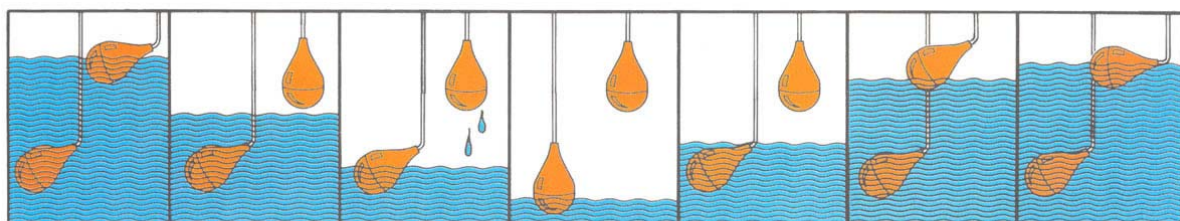
TYPE	MS 1 ELEC. EX
Specific weight:	0,95 - 1,05
Max. temperature:	80°C
Breaking power:	*1 - 100 mA / 4 - 40 V
Ingress protection:	EEx ia IIC T6
Cable cross section:	3 x 0,75 mm ²
Height / Diameter:	180 / 100 mm
Cable length:	5 / 10 / 20 m
Housing:	PRE - ELEC PP **
Housing colour:	black
Cable:	TPK / PVC
Cable colour:	blue

* Micro-switch with gold-plated contacts especially for low currents in EX-circuits.

** Specially deflective plastic to prevent electrostatic charging when used in EX-area (in accordance with ATEX 95).



OPERATING PRINCIPLE:



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the pear switch starts the pump.

2. so the liquid level lowers...

3. ...down to the lowest pre-selected position.

4. **Switch-off function:**
the pear switch stops the pump.

5. with the inflow, the level rises...

6. ...up to the selected switch point

7. ...and the process restarts.

**PEAR SWITCH
TYPE : MS 1 C**

⇒ **UP TO 100°C AND FOR CORROSIVE LIQUIDS** ←

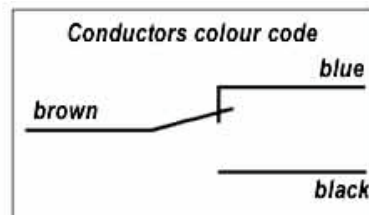
ADVANTAGES:

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- The output of the connecting cable shows an excellent resistance against traction.

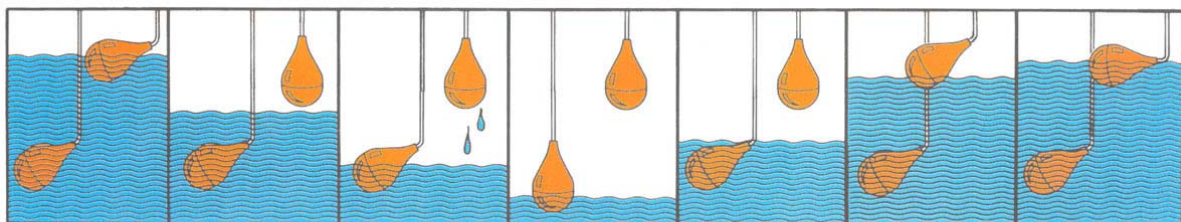


TYPE	MS 1 C
Specific weight:	0,95 - 1,05
Max. temperature:	100°C
Breaking power:	*1 mA / 4V - 5A / 250 V
Ingress protection:	IP 68
Cable cross section:	3 x 0,75 mm ²
Height / Diameter:	180 / 100 mm
Cable length:	5 / 10 / 20 m
Housing:	PP Stamylnan P 56 M 10
Housing colour:	grey
Cable:	Teflon FEP
Cable colour:	black

* Micro-switch with gold-plated contacts especially for low currents in electronic circuits.



OPERATING PRINCIPLE:



1. **Switch-on function:** the pear switch starts the pump.
2. so the liquid level lowers...
3. ...down to the lowest pre-selected position.
4. **Switch-off function:** the pear switch stops the pump.
5. with the inflow, the level rises...
6. ...up to the selected switch point
7. ...and the process restarts.

PADDLE SWITCH

TYPE : KSR DF21/...



Power supply

230 V/AC (50...60Hz)
(on request: 115, 48, 24 V/AC and 24 V/DC)

Output relay

1 change-over contact max.; 2A-230V/AC

Temperature

-20°C...+80°C
(on request: -20°C...+150°C, -20°C...+200°C,
-20°C...+260°C)

Process connection

G 1 1/2" DIN / ISO228
(on request: G1", G 1 1/4", M30 x 1,5, M32 x 1,5,
flange DN32 PN16 or DN100 PN16)
material: aluminium
(on request: stainless-steel connection)

Sensor

dimensions: 120 x 30mm stainless-steel
(others designs and dimensions on request)

Terminal box

Compact aluminium housing, dimensions:
92 x 88 x 80 mm
Stuffing-box output ISO M20 x 1,5
Protection: IP65

DESCRIPTION:

The filling level limit switch type KSR DF21 is used for level detecting with powders, grains, cosmetics, foods, seed silos, sand silos and paint containers.

OPERATING PRINCIPLE:

The paddle is moved by a geared motor.

When the product reaches the paddle, this one rotates until a complete stop.

The return torque operates a signal through a switching arm.

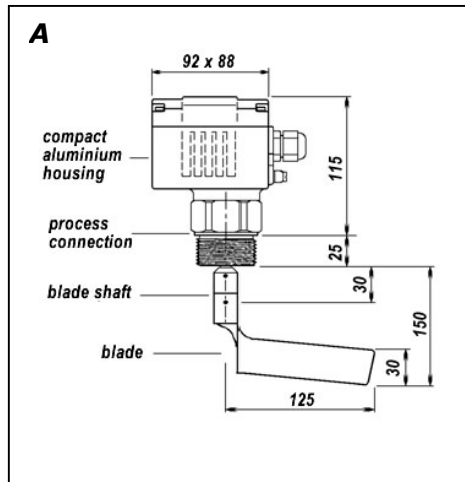
A second switch turns the motor off.

When the level drops, freeing the paddle, a spring moves the motor back in rotation.

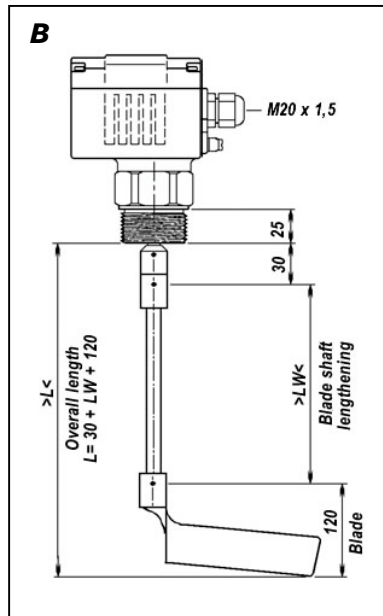
INSTALLATION HINTS:

- The installation and application of the detector must be done by skilled staff
- When connecting electrically, please respect setting sheets and currents standards
- Before any electrical connection, compare the recommended voltage to your installation's voltage
- The power supply must be protected with a fuse or a circuit breaker (max. 4 A)
- Protect the device's switches from spikes or inductive loads
- This device must only be used in its range of application
- When installing the device, take care of the DIN EN50281-1-2 standard if you are in explosive area (dusts), especially with high temperatures and dust deposits
- When installing the device, respect the fixed instructions if there is an explosion hazard (dusts). On request, version with approval: Ex II 1/2 D... for explosive areas)

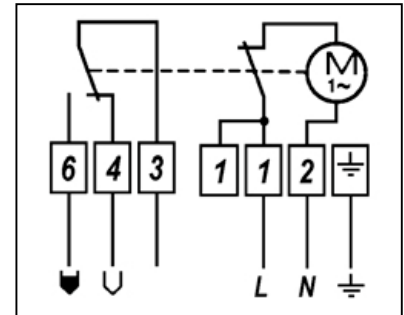
PADDLE SWITCH TYPE : KSR DF21/...



- Sensor min. length compared with the installation drawing (A): 175 mm
- other on request (B)...



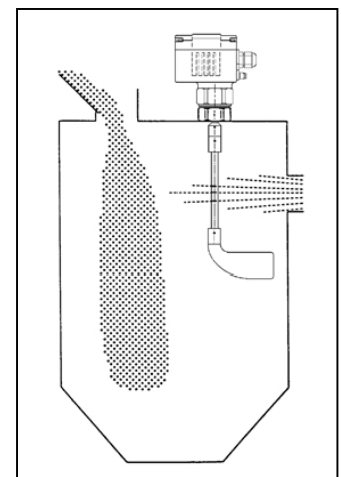
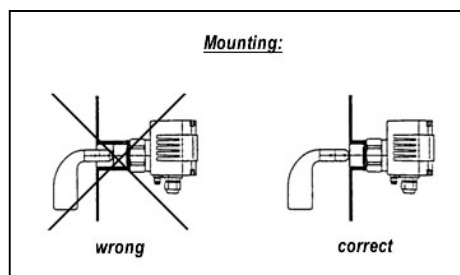
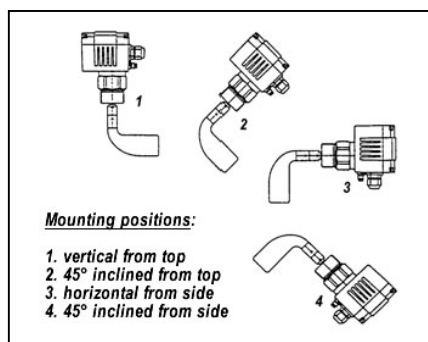
CONNECTION:



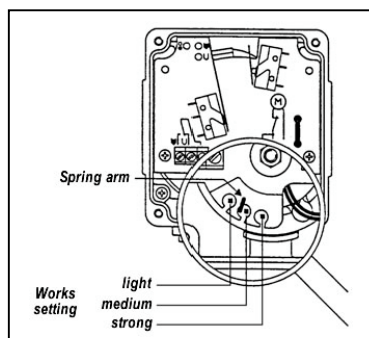
DETECTOR MOUNTING PRECAUTION:

The detector installation must be done so that the product's filling up does not corrupt his running.

MULTIPLE ARRANGEMENT: (vertically / horizontally / 45°)



SENSITIVITY CONTROL:



By moving the spring, the DF21 detector's sensitivity is adjusted according to the product:

- light = for very light product
- medium = for any type of product
- strong = for more sticky product

✗ move the spring only when the detector is running