Level Switch with Float

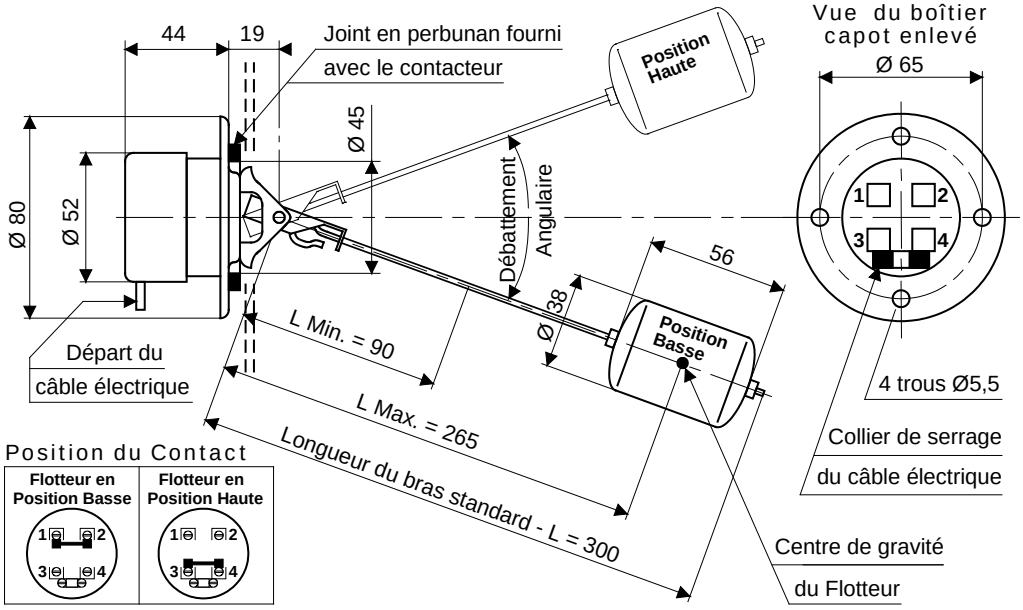
- Magnetic transfer
- Perfect sealing and small footprint
- Breaking Power 5A/230V AC

TYPE H12AN

Functions

The magnetic transfer from the movement of the float to the contact element ensures perfect sealing.
The total angular movement of the float arm is 34°. The movement necessary to tilt the switch is approximately 28° (differential).
The float, immobilised by two adjustable rings, can be positioned at a distance L from the articulated joint articulation O. This distance L determines the difference in level necessary to trip the contact; this equals L x 0.5. However the float should be capable of travelling a total distance equal to L x 0.6.
These relations are valid for symmetrical movement of the float arm with respect to the horizontal axis XY (Lmin = 90 and Lmax = 265). On request, possibility of longer float arm (600 mm maximum) to obtain a differential greater than 130 mm.

Dimensions & Wiring

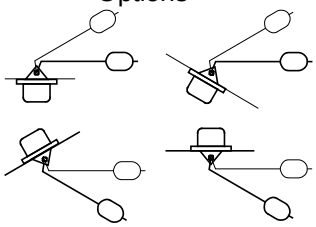


Position du Contact

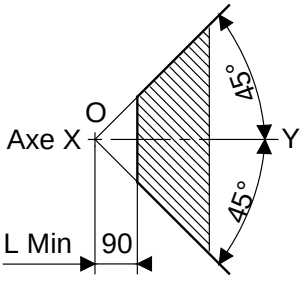
Flotteur en Position Basse	Flotteur en Position Haute

Installation

Options



The float arm can easily be cambered if you want to mount the unit on a non-vertical wall vertically or if you want to have a travel of the float arm symmetrical on both sides of the XY axis.
We must ensure, however, that the centre of gravity of the float is still moved in the shaded area defined in the diagram below.



Specification

Materials : Housing, wherein the electrical switch is located, is made of bakelite.
: Cap covering the connecting terminals is made of polystyrene.
: Hinge pin, setting screw, stainless steel float arm
: Bichromated cadmium **magnet**
: Nickel-plated brass **Float**
: All other parts are made of duclanised brass.
T° max. : +100°C maximum (for the controlled liquid).
Protection : IP30 (outside of the housing to the tank).
Pressure : 1 bar maximum (inside the container).
Contact : Unipolar OF with 4 terminals - 5A/230V AC -2A/24V DC (non-inductive circuit)
: feeding the contact from a single phase or polarity

Alternatives

H12ANS	: H12AN equipped with a 215 900 bellows.	**H12H**	: H12AN equipped with a sealed metal enclosure (1)
H12A1	: H12AN with Kanigène nickel-plated magnet	**H12L**	: H12AN equipped with a metal cap (1)
H12A2	: H12AN with Hirschmann socket (1)	**(1) See dimensions page 2/4**	

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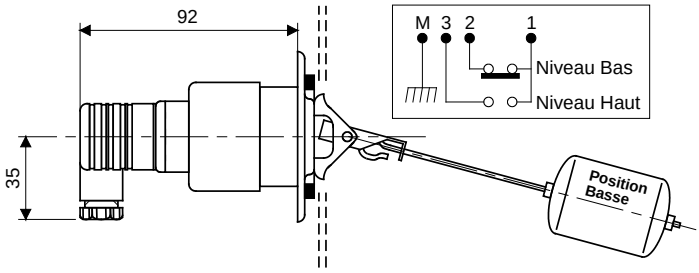
Alternative type H12AN switches

TYPE H12A2

This has the same operating specification as the Type H12AN.

Moreover, it is equipped with a Hirschmann socket to protect the terminals.

Degree of protection: IP65.

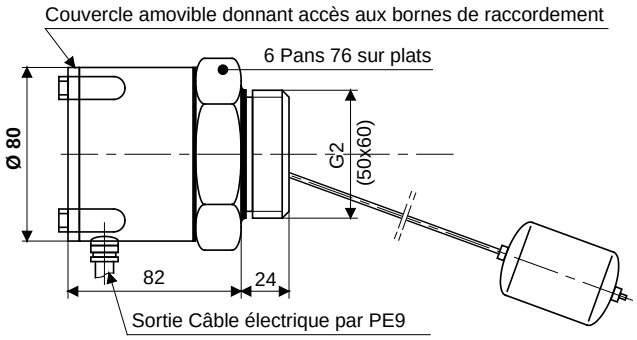


TYPE H12H

This has the same operating specification as the Type H12AN.

Moreover, it is equipped with a sealed metal housing to protect the terminals.

Degree of protection: IP55.
Pressure: 6 bar max. inside the container.

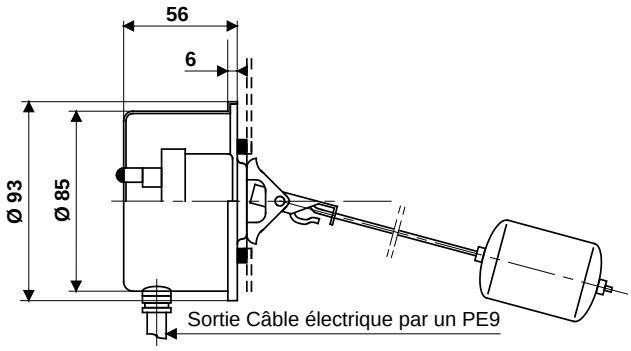


TYPE H12L

This type of switch has specification and mounting identical to that for the H12AN.

In addition, it is equipped with a metal cap to protect the terminals.

Degree of protection:
- IP 42 when mounted on a horizontal wall or inclined at 15° maximum to the horizontal.
- IP 40 in all other mounting cases.



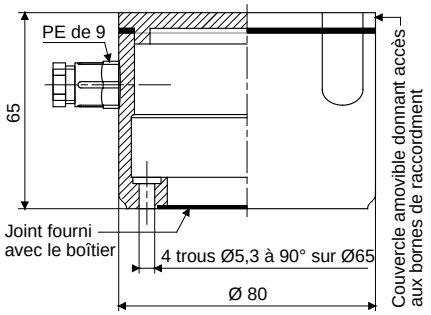
Connection accessories

The **211 967 aluminium housing** gives to the switch receiving it a degree of protection IP 55. It mounts, on tanks in which the inside pressure can reach 6 bars, the following switches: H12A1, H12AN and H12C

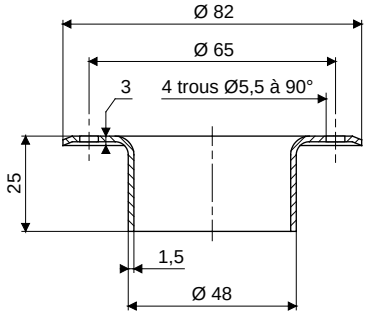
The **counterflange 210127** mounts, on tanks in which the inside pressure can reach 6 bar, the following switches: H12A1, H12A2, H12AN, H12C, H12E and H12L.

Mounting the **215 900 bellow** facilitates the use of the following switches in liquids charged with particles: H12AN, H12A1, H12A2, H12H and H12L.

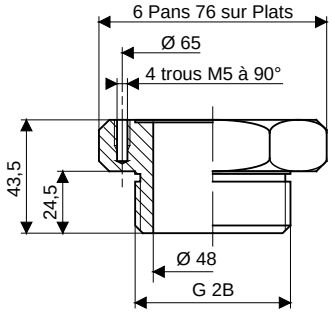
Aluminium housing 211 967



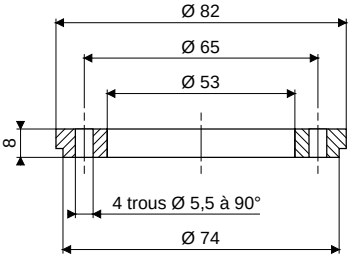
207 498
Welded steel socket



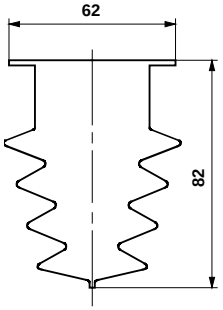
208 759
Aluminium threaded collar



210 127
Steel counterflange



215 900
PVC bellows



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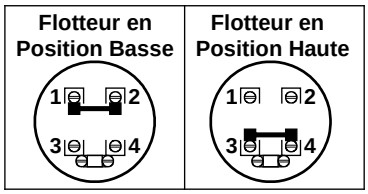
TYPE H12C

Use

1. This controls a low or high level with a switch attached to the top of the tank.
2. It also provides regulation between two points for controlling a filling or automatic drainage with a large differential (see Dimension C).

Operation

Both floats slide on the rod T and push on the adjustable rings R and S to switch the **position of the contact**:



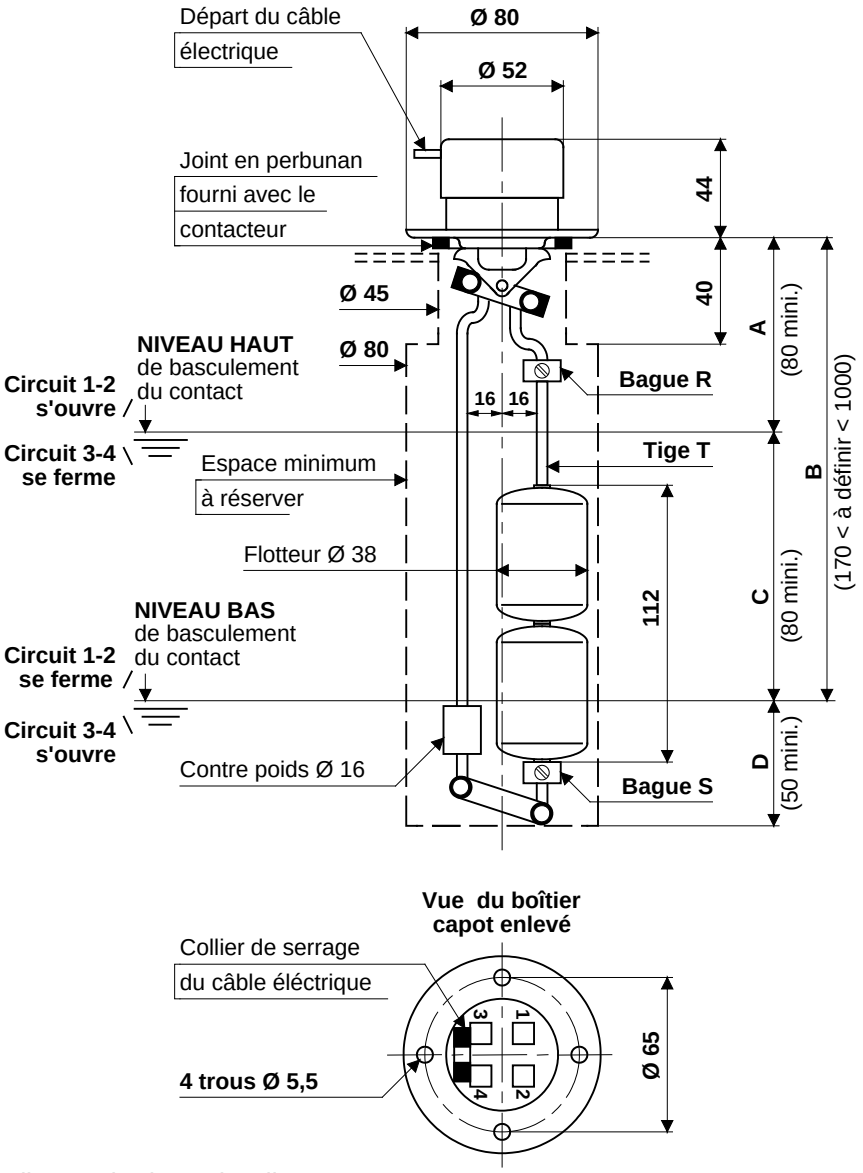
When ordering, specify the maximum **"Dimension B"**for the low level to tilt the switch. Its minimum possible is 170 mm and maximum 1000 mm (Dimension F for H12G).

Below this level, set aside a free space, "**Dimension D",** of at least 50 mm. When mounting the ring S, dimension B can be reduced, but of course the dimension D will be increased by the same amount.

When mounting the ring R at maximum, we can obtain a **"Dimension A"** minimum of 80 mm (Dimension E for H12G).

If we compare at maximum the two rings R and S, we obtain a differential (Dimension C) 80 mm minimum value of the differential **(Dimension C)** 80 mm**,** minimum value of the differential..

Dimensions



Specification

See specification for H12AN type.

Installation

Type H12C switch is always mounted vertically on a horizontal wall.

Connection accessories (see page 2/4)

Reference	207 498	208 759/1	210127	211 967
Description	Welded steel socket	Aluminium threaded collar	Steel counterflange	Aluminium

Alternative

* See Page 4/4

H12C	: Vertically Mounted Contactor	IP30	Maximum pressure 1	Define **Dimension B**
H12E *	: H12C equipped with a metal cap	IP42	Maximum pressure 1	Define **Dimension B**
H12G *	: H12C with a metal housing	IP55	Maximum pressure 6	Define **Dimension F**

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Alternative type H12C switches

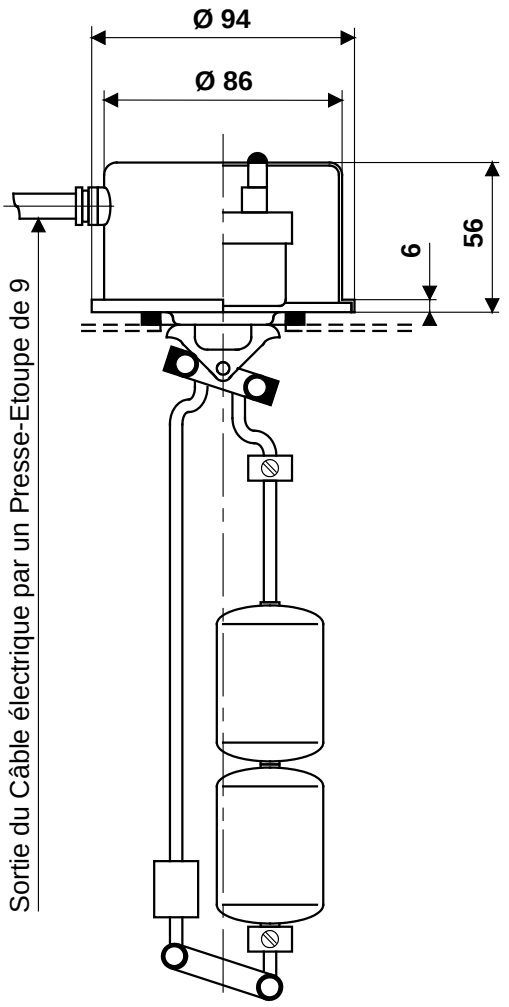
Types H12E and H12G have the same operating specification and type of installation as the H12C.
They are distinguished from the latter by the degree of protection of the electrical switch.

TYPE H12E

The H12E is equipped with a metal cap to protect the connection terminals.

Degree of protection: IP 42.
Max. pressure (1) : 1 bar.

Define "Dimension B" - see H12C.



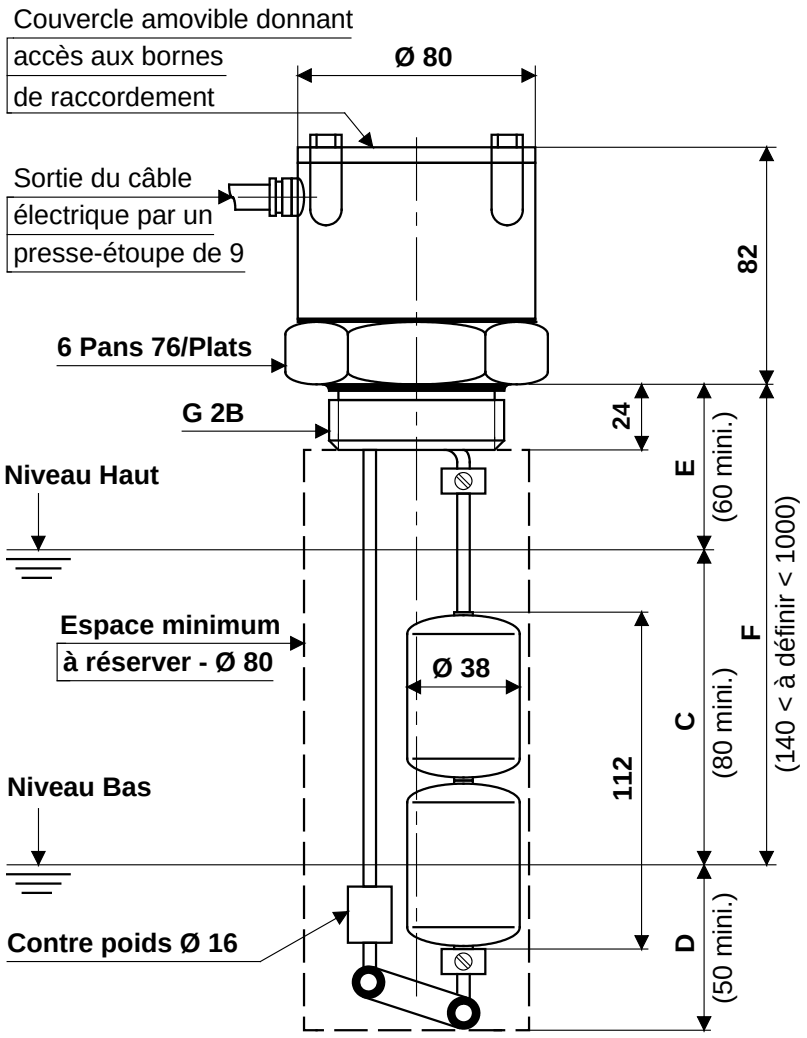
TYPE H12G

The H12G is equipped with a sealed metal enclosure for protection of the connecting terminals.

Degree of protection: IP 55.
Max. pressure (1) : 6 bars

(1) inside the tank

Define "Dimension F".



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