



HMW/3/.. and HMW/1/.. magnetic switches

Mounting and mode of operation of the magnetic switches

The **HMW/3/..** and **HMW/1/..** magnetic switches are accommodated in a housing, which can be fastened to a pipe by means of a tube clamp which is attached to the housing. The housing contains a connection terminal and a microswitch; a magnet is fixed to the lever of the latter. When the magnetic switch is installed and the magnet on the microswitch lever is activated by a magnet moving up and down in the tube, this changes the position of the microswitch lever and an electrical circuit is created.

The magnetic switches have so-called bistable characteristics; i.e. they remain in the switching status caused by the influence of the passing magnet and only switch over when the magnet passes by in the opposite direction.



**HMW/1/32
magnetic switch
attached to a transparent tube made of PVC
containing the float SW 25x142/PP**



HMW/3/.. and HMW/1/.. magnetic switches

These units are not suitable for use on vibrating machines or in places at risk from shock or vibration.

Technical data	HMW/3/..	HMW/1/..
Application	standard applications	light current applications
Switching voltage	between AC/DC 24 V and AC/DC 250 V	between AC/DC 1 V and AC/DC 42 V
Switching current	between AC 20 mA and AC 3 (1) A or between DC 20 mA and DC 100 mA	between AC 0.1 mA a. AC 100 (50) mA or between DC 0.1 mA and DC 10 mA
Switching capacity	max. 500 VA or 10 W	max. 4 VA or 0.4 W
Operating principle	magnetically activated bistable microswitch, potential-free changeover contact	
Housing	PP, approx. 65 x 50 x 35 mm	
Protection class	IP 65	
Pipe clip material and pipe clip diameter (supplement of the type designation)	<ul style="list-style-type: none"> • 28 = with stainless steel pipe clip, for a tube with an outer Ø of 28 mm • 32 = with PP pipe clip, on request with stainless steel pipe clip, for a tube with an outer Ø of 30-32 mm • 40 = with stainless steel pipe clip, for a tube with an outer Ø of 35-40 mm • 60 = with stainless steel pipe clip, for a tube with an outer Ø of 50-70 mm 	
Mounting orientation	vertical (cable entry must point downwards)	
Temperature application range	+ 1°C to + 60°C	
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Mounting instructions for HMW/...

To avoid damage to the pipe clip of the HMW/... magnetic switch, it is important that you open the clip carefully, never abruptly, and never using force.

This applies in particular to the pipe clip made of PP for outer pipe diameters from 30 - 32 mm.

We recommend that the pipe clip ends should only be opened just enough to accommodate the pipe diameter in question.

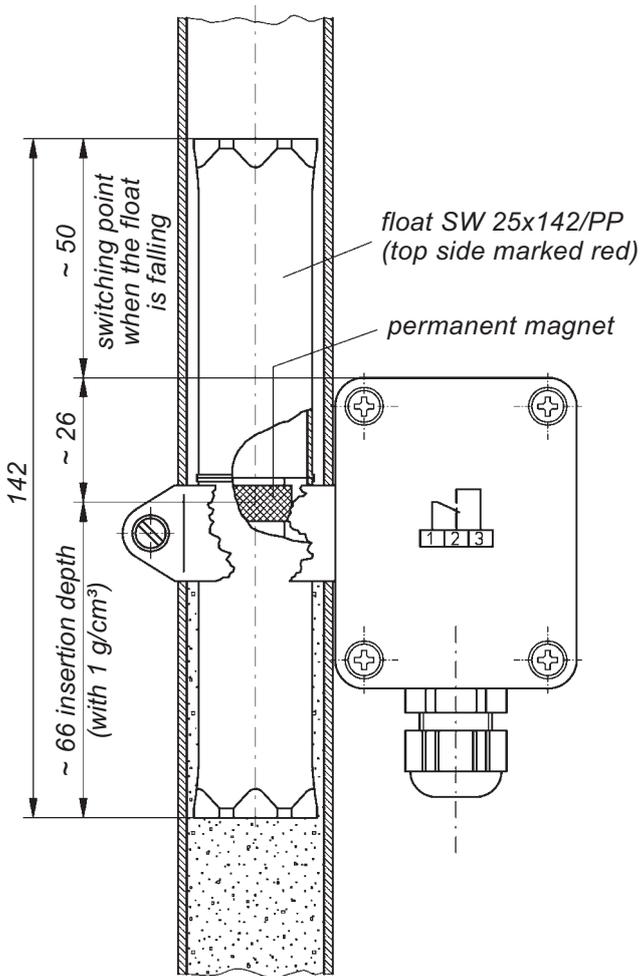
The best way to mount the clip is to lightly press the slightly opened pipe clip ends against the pipe.



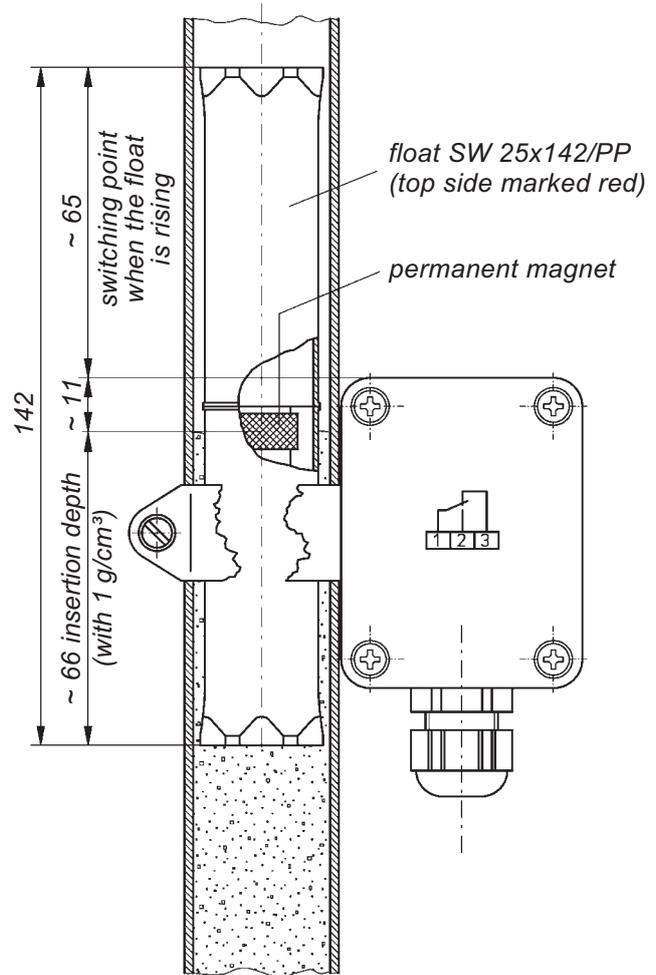
HMW/3/.. and HMW/1/.. magnetic switches

Functional diagrams

Representation of the switching point and the switching position when the float has moved past the magnetic switch from "top" to "bottom"



Representation of the switching point and the switching position when the float has moved past the magnetic switch from "bottom" to "top"



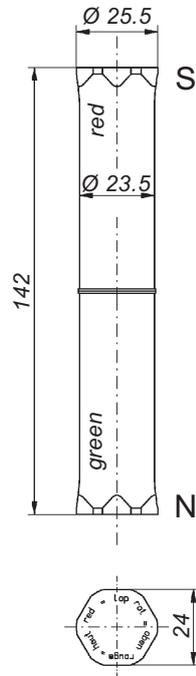
Dimensions when the float is used in liquids with a specific gravity of 1 g/cm³



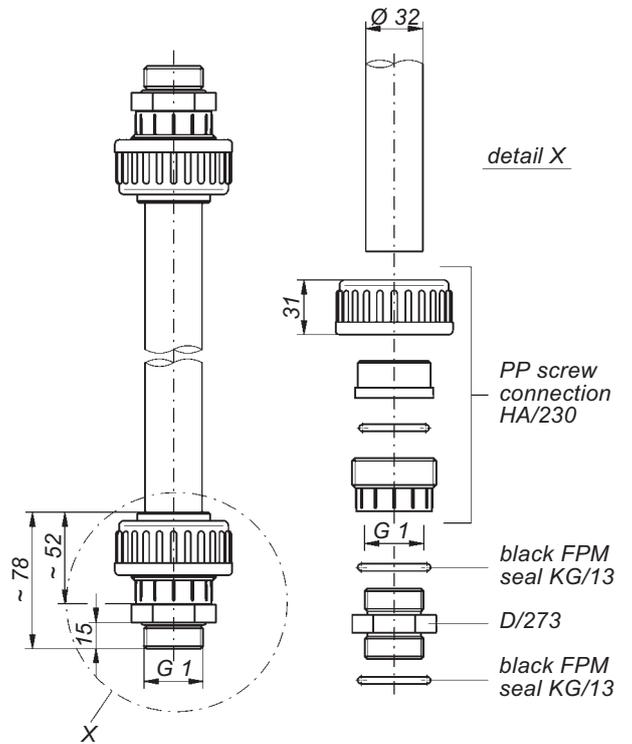
Accessories for HMW/...

for applications like those described on page 4-1-6 and foll.

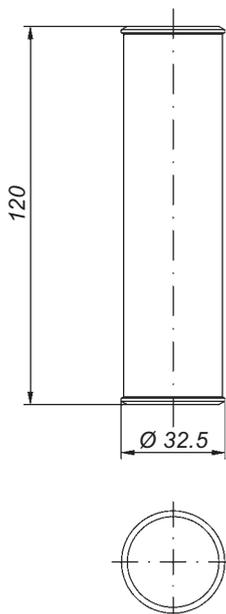
Float SW 25x142/PP
(small PP float with built-in magnet)



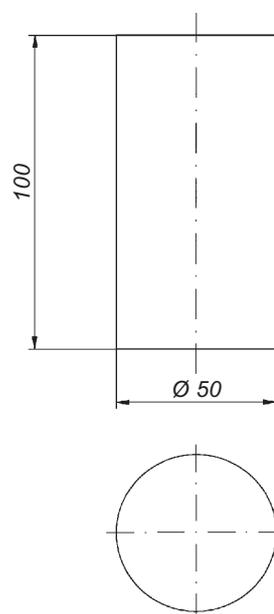
Mounting bracket for glass tube or transparent PVC tube of 32 mm Ø
(diagram with smaller scale compared to adjacent drawings)



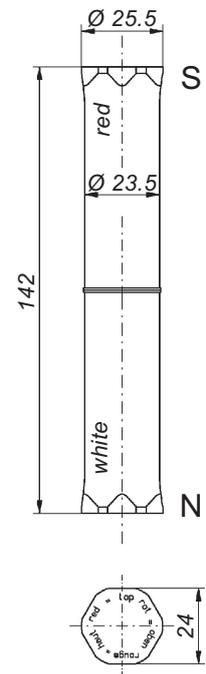
Float SW 32x120/PP
(middle PP float with built-in magnet)

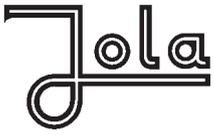


Float SW 50x100/PP
(big PP float with built-in magnet)



Float SW 25x142/PVDF
(small PVDF float with built-in magnet)



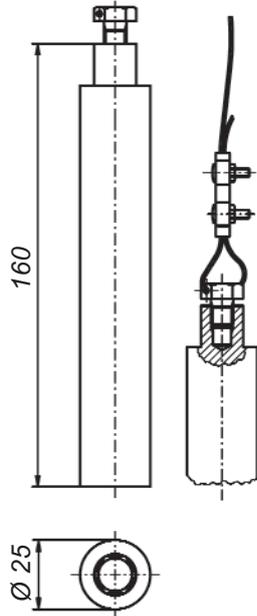


Accessories for HMW/...

for applications like those described on page 4-1-15 and foll.

Counterweight GG 25x160/PP/E

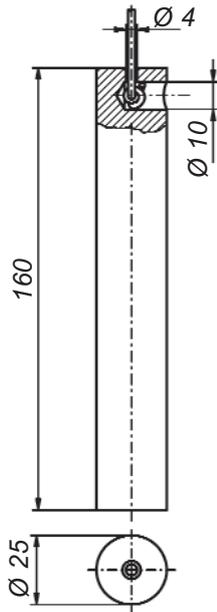
(small PP counterweight with built-in magnet, for stainless steel rope \varnothing 1.5 mm, for ENVM/E)



weight: ~ 330 g

Counterweight GG 25x160/PP/PP

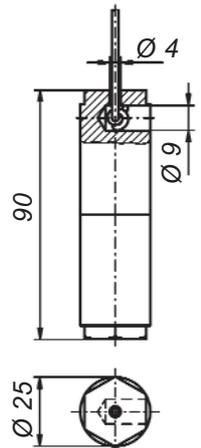
(small PP counterweight with built-in magnet, for PP rope \varnothing 3 mm, for ENVM/PP)



weight: ~ 330 g

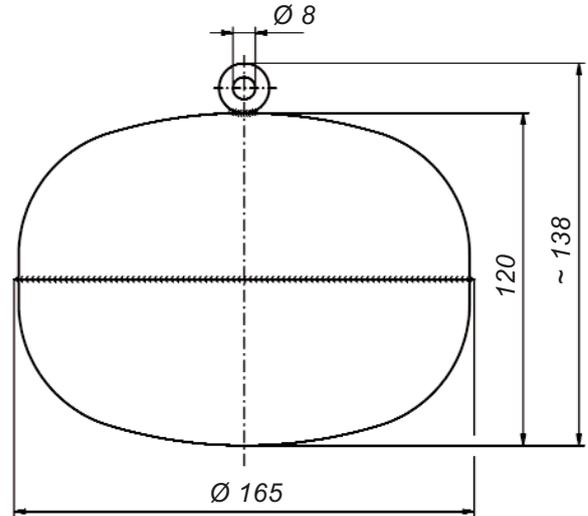
Counterweight GG 25x90/PP/PP

(small PP counterweight with built-in magnet, for PP rope \varnothing 3 mm, for ENVM/PP/PVC)



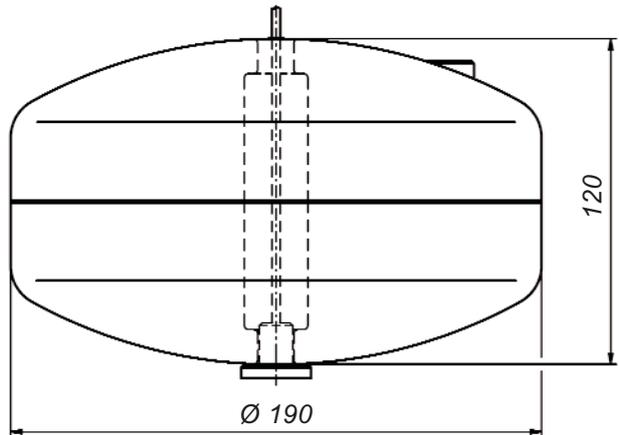
weight: ~ 160 g

Float SWS 165x120/E made of stainless steel 316 Ti, filled with sand



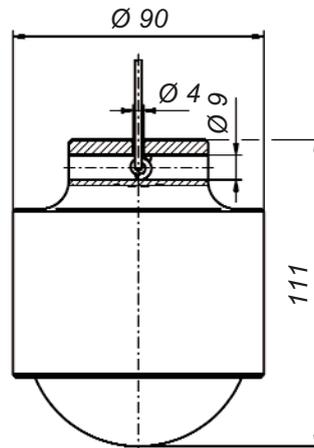
weight: ~ 730 g

Float SWS 190x120/PP made of PP, filled with sand



weight: ~ 800 g

Float SWS 90x111/PP/HK made of massive PP



weight: ~ 490 g