

# Level controllers

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

These magnetic switches are accommodated in a housing which can be fastened to a pipe by means of a pipe clip 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 pipe, 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.

**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	for standard applications	for 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 and AC 100 (50) mA or between DC 0.1 mA and DC 10 mA
Switching capacity	max. 500 VA / 10 W	max. 4 VA / 0.4 W
Operating principle	magnetically activated <b>bistable</b> microswitch, potential-free changeover contact	
Housing	PP, approx. 65 x 50 x 35 mm	
Protection class	IP65	
Pipe clip material and pipe clip diameter (supplement of the type designation)	<ul style="list-style-type: none"> <li>• 28 = with stainless steel pipe clip, for tube with outer Ø of 28 mm</li> <li>• 32 = with PP pipe clip, on request with stainless steel pipe clip, for tube with outer Ø of 30 to 32 mm</li> <li>• 40 = with stainless steel pipe clip, for tube with outer Ø of 35 to 40 mm</li> <li>• 60 = with stainless steel pipe clip, for tube with outer Ø of 50 to 70 mm</li> </ul>	
Mounting orientation	vertical (cable entry must point downwards)	
Temperature range	+ 1°C to + 60°C	



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

 **versions also available. Detailed information on request.**

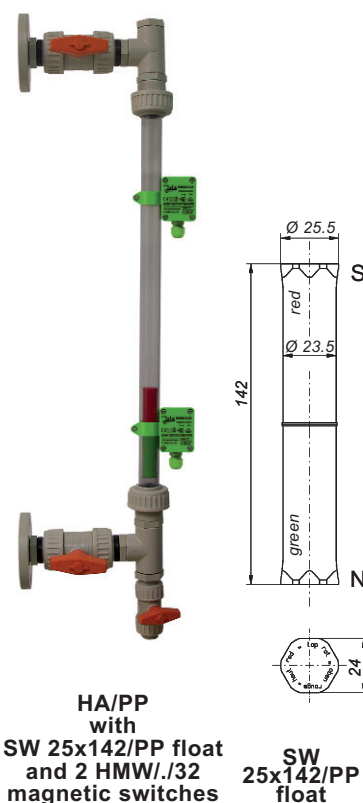
## HA/... level indicators

The HA/... level indicators allow direct read-off of a liquid level based on the system of communicating tubes in the sightglass of the unit.

The unit is fitted with 3 ball valves (2 ball valves to separate the unit from the tank, 1 ball valve for discharge of the liquid).

The HMW/3/32 and HMW/1/32 magnetic switches can be attached to the sightglas of the HA/... level indicator. In this case, the float SW 25x142/PP made of PP with a built-in magnet must be inserted in the tube.

Technical data	HA/E 32	HA/PP
Ball valve material	stainless steel 316 Ti	PP
Dimensions of the connecting flanges	DN 32 PN 6 or DN 32 PN 10/16, other dimensions on request	DN 32 PN 6,
Discharge ball valve	$\frac{3}{8}$ "	
Sightglass material	borosilicate glass; on request: transparent PVC	
Centre distance	as required, max. 1,500 mm, longer on request	
Outer diameter of sightglass	32 mm	
Mounting orientation	vertical	
Temperature range	+ 1°C to + 60°C, other temperature ranges on request	
Pressure resistance	for pressureless applications	



**HA/PP with SW 25x142/PP float and 2 HMW/1/32 magnetic switches**

**SW 25x142/PP float**