Atek Alfa

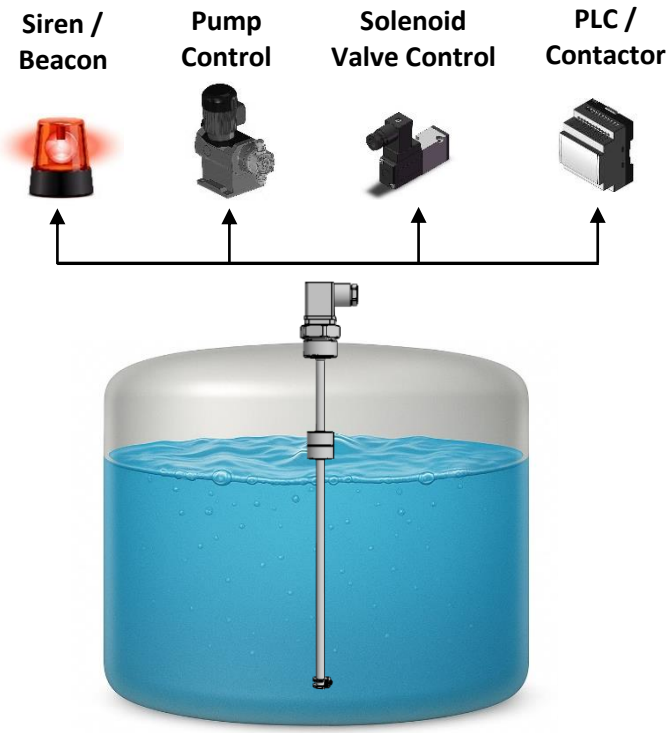
FLOAT LEVEL SENSOR

AFS 110

"Level control with float, various options for immersion length, mechanical connection, switch type, and float type "

- Various immersion length options from 75 mm to 500 mm
- Wide range of customizable features (mechanical connection type, electrical connection, material type, etc.)
- Various switch and float options
- Maximum reliability thanks to high-quality reed contacts
- Fast and easy installation

In AFS 110 series float level sensors, a magnet-equipped float moves along the tube in response to the liquid level. When the float reaches the position of the reed sensor, the magnetic field generated by the magnet opens or closes the electrical circuit. In this way, a change occurs in the circuit when the liquid reaches a specific level.
This change in the reed sensor can be interpreted via a relay circuit or a control device as an alarm or level signal. As a result, the system status can be continuously monitored, and real-time information can be provided to the user.



APPLICATION AREAS

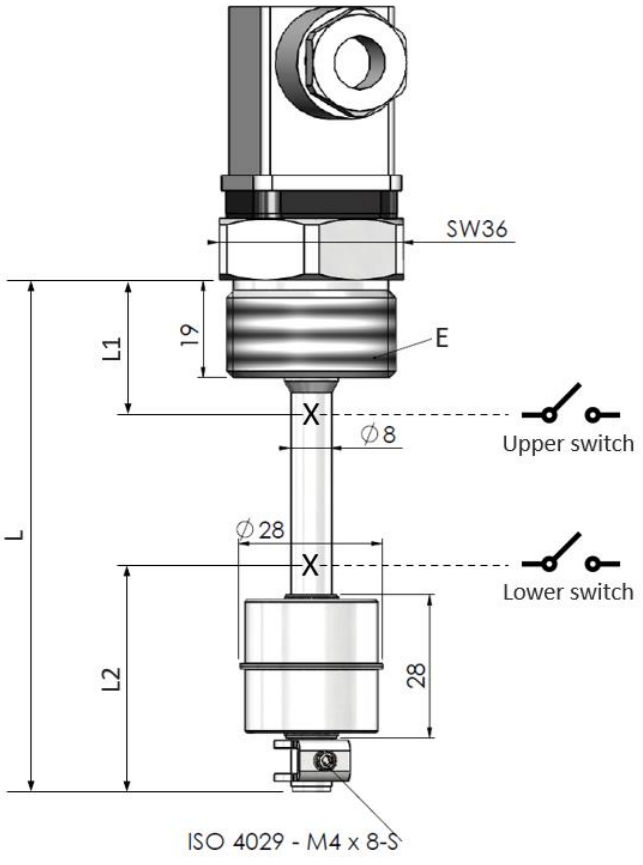
The AFS 110 series level sensors are used across a wide range of industries, from industrial automation to food production, ensuring accurate monitoring and control of liquid levels. They are utilized in various fields such as water treatment plants, mobile hydraulic systems, the food and beverage industry, and the chemical and pharmaceutical industries, including:

- Tank level measurement and control
- Boiler control
- Drinking water or wastewater level control
- Hydraulic oil tank level measurement and control
- And more.

TECHNICAL FEATURES

ELECTRICAL DATA		
Measurement Principle	The reed contacts are triggered by a magnet in the float (The lower contact is activated when the float moves approximately 15 mm)	
Switch Output	**SPDT - NO, NC Change-Over**	**SPST-NO**
Contact Voltage	150 VDC / 150 VAC	200V AC/DC
Contact Current	1A (AC/DC) / 20VA	1A AC/DC
Number of Switches	1 (standard), multiple switches available upon request	
Electrical Connection	Cable or DIN43650-A connector	
MECHANICAL DATA		
Immersion Pipe Length (L)	Different options from 75mm to 500mm (thread included) (optional others)	
Contact Distance (L1)	Can be specified by the customer in accordance with the immersion length	
Process Connection (E)	G1” (optional others)	
Immersion Pipe Diameter (D)	8mm (optional others)	
Number of Floats	1 (optional others)	
Float Type	See Float Type table (page3)	
Material	Float: 304 SS	
	Wetted parts: 304 SS	
	Pipe: 304 SS	
ENVIRONMENTAL DATA		
Protection Class	IP65	
Working Temperature	-40°C ... +125°C	

MECHANICAL DIMENSIONS (mm)

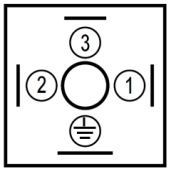
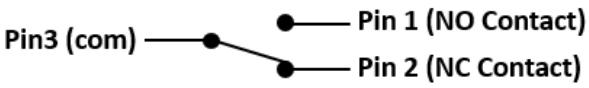
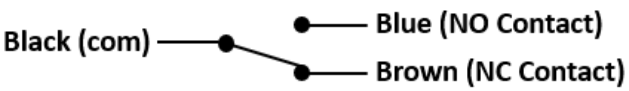


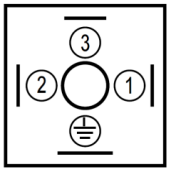
Immersion Pipe Length	Upper Switch	Lower Switch	Process Connection
L (mm) (thread included)	**L1 (mm) (thread included)**	**L2 (mm)**	**E**
75	Customer-specified (Min: 50mm)	30 (std)	G1”
100			
125			
150			
175			
200			
225			
250			
275			
300			
325			
350			
375			
400			
425			
450			
475			
500			

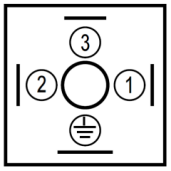
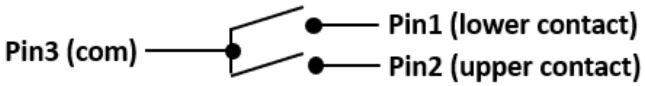
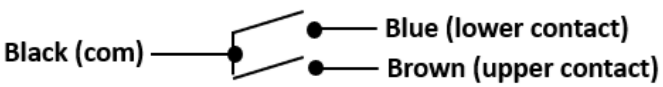
FLOAT TYPE

Model	Picture	Description
F1M1 (standard)		**Dimensions:** 28 x 28 x 9,5 mm **Material:** 304 SS
F2M1		**Dimensions:** 38 x 26 x 9,5 mm **Material:** 304 SS

ELECTRICAL CONNECTIONS

1 pcs SPDT SWITCH (NO, NC CHANGE-OVER)	
 **DIN43650-A Connector (S170)**	 **Cable**
 **Pin3 (com)** **Pin 1 (NO Contact)** **Pin 2 (NC Contact)**	 **Black (com)** **Blue (NO Contact)** **Brown (NC Contact)**

1 pcs SPST SWITCH (NO)	
 **DIN43650-A Connector (S170)**	 **Cable**
 **Pin2** **Pin1**	 **Blue** **Black**

2 pcs SPST SWITCH (NO)	
 **DIN43650-A Connector (S170)**	 **Cable**
 **Pin3 (com)** **Pin1 (lower contact)** **Pin2 (upper contact)**	 **Black (com)** **Blue (lower contact)** **Brown (upper contact)**

ORDER CODE

1-Model
AFS 110

2- Immersion Pipe Length (mm) (L)

075: 75mm	175: 175mm	275: 275mm	375: 375mm	475: 475mm
100: 100mm	200: 200mm	300: 300mm	400: 400mm	500: 500mm
125: 125mm	225: 225mm	325: 325mm	425: 425mm	
150: 150mm	250: 250mm	350: 350mm	450: 450mm	

***Thread included**
***Please ask for other options**

3- Immersion Pipe Diameter (mm) (ØD)
08 : 8 mm
***Please ask for other options**

4- Number of Switches
1: 1 pcs (std.)
2: 2 pcs
***A single SPDT relay type is available as standard. For the SPST relay type, one or more units can be selected optionally.**
***Please ask for other options**

5- Switch Type
R1 : SPDT relay
R2 : SPST-NO relay
***Please ask for other options**

6-Upper Switch Distance (mm) (L1)
***It can be selected at the distance requested by the customer. It should be chosen in accordance with the immersion length.**
***Thread included. (Min: 50 mm)**
Note: The upper switch distance (L1) can only be specified when the number of contacts is 2 or more. If only 1 contact is selected, the upper switch distance (L1) cannot be specified and the code for this field must be entered as "0".

7- Number of Floats
1: 1 pcs (std.)
2: 2 pcs
***It should be selected according to the connection and radius.**
***Please ask for other options**

8- Float Type
F1M1 : 28 x 28 x 9,5mm 304 SS (std.)
F2M2 : 38 x 26 x 9,5mm 304 SS
***It should be selected according to the connection and radius.**
***Please ask for other options**

9- Process Connection (E)
G1 : G1"
***Please ask for other options**

10- Electrical Connection
S170 : DIN43650-A **1M** : 1 meters cable
***Please ask for other options**

11- Material
E304 : 304 SS (std.)
***Please ask for other options**

SAMPLE ORDER CODE: AFS 110 **–** 100 **–** 08 – 1– R1 – 30 – 1 – F1M1 – G1 – S170 – E304