

Float Switch S-x-Ex, QFS-x-Ex, SK-x-Ex Mounting and Startup Instructions

 Zone 1 Category 2

Important information - Be sure to read and follow

The prerequisites for a perfect and safe operation of the Ex float switches are proper transport, storage and mounting, professional installation and commissioning, operation as intended and maintenance. These tasks shall be performed only by persons possessing the subject knowledge required and having the appropriate qualification.

The relevant safety instructions for the setup and operation of electrical systems in the Ex area must be observed. Special attention is drawn here to the setup regulations according to EN **60079-14** for electrical installations in explosion hazard areas. In addition, the enclosed EC type sample certificate **IBExU 10 ATEX 1089** must be observed.

ATTENTION: All electrical connections must be made without power.

Installation in areas with strong electromagnetic fields is not permitted.

Please contact the manufacturer if the information included in these instructions is not adequate in some way.

Application

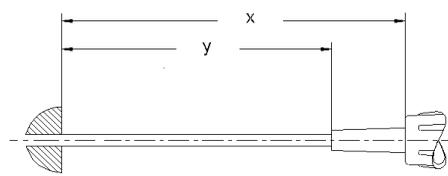
The Ex float switches are suitable for the control of filling levels in containers for flammable liquids (Zone 1, Cat. 2). Used as Min. / Max, filling contact sensor, emptying contact sensor, overflow protection, and dry running protection.

Mounting

The devices can be mounted on the container or respectively screwed on it (compression gland) or introduced from above in case of open container. The switching point may be determined as needed with a loading-weight (G-902). To avoid potential differences the metal-float-switches must be integrated into the equipotential bonding system. However, no coupling between PA and PE may be made here (PA--connection: see EN 60079-14).

The maximum values of the EC type examination certificate No. IBExU 10 ATEX 1089 must be observed

Labelling:  II 2G Ex ib IIB T4 Gb

Cable minimum length to the fixpoint	Cable type	X or Y
 <p>The diagram shows a cross-section of a container with a float switch. A cable is connected to the switch. Dimension 'x' is the total cable length from the container wall to the terminal block. Dimension 'y' is the cable length from the container wall to the float switch.</p>	FEP (~Ø 4.0)	Y = 100 mm
	TPK (~Ø 5.9)	X = 70 mm
	TPKV (~Ø 7.3)	X = 90 mm
	PUR (~Ø 5.4)	X = 100 mm
	SIL (~Ø 6.4)	X = 80 mm
	SIL with AEM	X = 80 mm

Electrical connection

The connection supply must be made in the type of connection intrinsic safety Ex ib IIB and connected only to certified intrinsically safe circuits with safe electrical isolation. For this purpose one of our approved Ex - isolating switching relays Type ER-14x, KR-163, XR-4, XR-6 is to be used. (see section 10). The container and the medium must be grounded.

Float Switch with cable connection		
All electrical connections must be made without power !!!	BLACK / BROWN	NORMALLY CLOSED ON ASCENDING
	BLACK / BLUE (GREY)	NORMALLY OPEN ON ASCENDING

Technical data

See datasheet of the desired device 05-00-01 bis 05-03-05

Handling / Maintenance

The filling level sensors are measuring instruments and accordingly handled with care! Before using the float switch it must be ensured that the materials of the float switch remain sufficiently resistant against the liquids to be monitored and all external influences, both chemically and mechanically. To avoid compromising functions, the environment of the float switch action range must be free from interferences (e.g. magnetic field, mechanical obstacles, ...). Generally, major forces such as impacts, knocks, bending or similar should be avoided. The connecting cable must not be damaged since the IP protection class is otherwise not maintained. Appropriate maintenance / cleaning intervals must be provided.

Mounting Loading-weight G-902

