

Liquid flow switch

**Liquid flow switch with contact output
binary sensor in hazardous locations zonen 1 and 2**

ATEX compliant

Type SWBT-2G

APPLICATION

SWBT-2G is suitable for monitoring of liquids in pipes. In combination with Ex-i switch Type EXL-IRU-1 with intrinsic safe circuit the sensors may be used in hazardous areas zones 1 and 2.

TECHNICAL DATA

Type	SWBT-2G
Contact	dust proof microswitch as potential free single-pole changeover contact
Supply	by EXL-IRU-1
Ambient temperature	-20...+60 °C
Storage temperature	-40...+80 °C
Media temperature	max. 120 °C
Enclosure	plastic, PA glass-globe-reinforced, IP65
Flange (media contiguous)	brass
Max. Pressure	11 bar
Pressure loss	approx. 0,01...0,03 bar
Dimension	108 × 70 × 73,5 mm + paddle
Protection class	simple apparatus acc. to EN60079-0/EN60079-11
CE	2014/34/EU (ATEX)
Scope of delivery	1 liquid flow switch
Installation area	Zone 1 and 2 with switching module type EXL-IRU-1

suitable for
zone 1 and 2
acc. to ATEX



Ex-i CIRCUIT - TABLE 1

Operation values maximum at terminal

Simple apparatus suitable for Zone 1, 2
Only for connecting to intrinsically safe circuits with max. values

Voltage	U _o	13,5 VDC
Current	I _o	23 mA
Power	P _o	76 mW

Capacity	C _i	0 µF
Inductivity	L _i	0 mH

MOUNTING AND INSTALLATION

The flow switch may be positioned in every position far from elbows or narrowing, arrow must be oriented downstream. If pipe is vertical, reset paddle weight. If the device is toward bottom take care of slugs, and apply it in a straight pipe upstream and downstream at least five times the diameter, far from filters, valves, etc.

Attention:

In the case that the flow switch will be used as a minimum flow controller there is a need forward of a further controller devices to activate the signal.

In the case that the flow switch will be used as a flow limiter on systems, acc. to TRD 604, there might be the possibility to effect maintenance and inspection on the unit providing forward and backward interception valves.

Note:

The flow switch is set ex factory at its min. sensitivity. To improve the set valve turn clockwise the adjustment screw. The cut-out value must be ≥ of the minimum necessary flow to guarantee the protection of the system. The device without fittings will be supplied with 4 paddles (from 1" to 8"), which have to be fitted to the pipe's diameter.

The maximum values must not be exceeded!

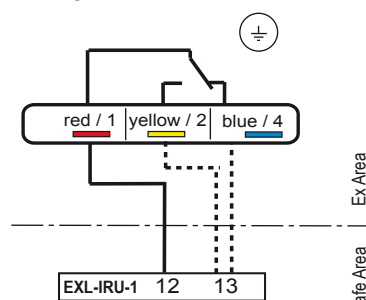
Please check your external capacities and inductivities in acc. to the length of the cable and the methode of installation.

RECOMMENDED MODULE

- Switching module Mfr. Schischek Type EXL-IRU-1.
- In combination with transducer EXL-IRU-1 the intrinsic safety proof for simple circuits is given.
- Manufacturer declaration zone 1 and 2.

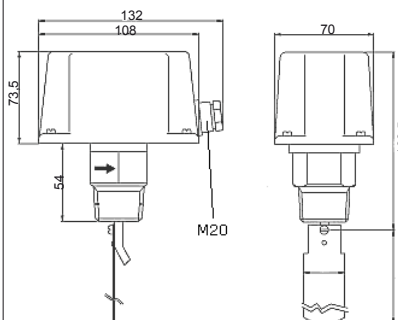
ELECTRICAL CONNECTION

Flow switch SWBT-2G



Ex-i Module EXL-IRU-1

DIMENSIONS



ATTENTION!

- For installation, use and maintenance the official standards and rules must be applied.
- The energy of intrinsically safe circuits are below the level to start an explosion in case of a spark.
- Intrinsic safe circuits must be installed with light blue coloured wiring and separate from non intrinsic safe circuits.
- The sensor is passiv and potential free for use in hazardous locations in zone 1 and 2.
- Pay attention to the max values for wiring (listed in table 1).
- Avoid electrostatic discharge.
- Only damp cleaning.
- Choose the fluid temperature in such a way that the maximum ambient temperature is not exceeded.

Subject to change