

## S6065A1003/2001 LIQUID FLOW SWITCHES

### SPECIFICATION DATA & MOUNTING INSTRUCTIONS

#### FEATURES

- Cost-effective flow switches for HVAC applications.
- High-capacity, fully-encapsulated NC/NO micro-switch.
- A single type suitable for pipes with a diameter of 1 to 8".

#### COMMON SPECIFICATIONS

Switching capacity	15 (8) A, 24...250 Vac
Lifetime	50000 cycles at nominal load
Working temperature	-40...+85 °C at 10...90% rel. humidity, non-condensing
Electrical connection	Screw terminal, wire up to 1.5 mm <sup>2</sup> cable Ø 6...9 mm
Protection class	I according to EN60730
Protection standard	IP65 according to EN60529
Housing material	ABS and corrosion-protected steel
Accessories	PA2 Paddle set

#### MOUNTING

The S6065A1003 and S6065A2001 Liquid Flow Switches can be mounted in any desired position far from elbows, valves, and filters.

**NOTE:** The arrow on the housing must point downstream. When using multiple paddles, the paddles must be arranged in order of decreasing length downstream, i.e. with the longest paddle facing the oncoming liquid.

In the case of vertical pipes, reset the range to balance the paddle weight. To prevent malfunction caused by impurities in the medium, do not mount the device with the housing pointing downwards.



#### GENERAL

The S6065A1003 and S6065A2001 Liquid Flow Switches are designed for monitoring flow rates in pipes employed in HVAC applications. They are suitable for monitoring flow in water, oil, cooling circuits, and lubrication systems. The S6065A2001 is designed for monitoring aggressive liquids.

See Table 1 for the reset and switch points for water. Data for other media must be determined empirically.

#### MODELS

Specification	S6065A1003	S6065A2001
Flow medium	non-aggressive liquid	aggressive liquid
Mounting	Rp 1" (ISO7/1)	Rp 1" (ISO7/1)
Maximum pipe temperature	120 °C	120 °C
Pressure	11 bar	30 bar
Paddle material	1.4404	1.4401
Lever	yellow brass	1.4404
Sensor body	yellow brass	1.4404
Housing dimensions	113 x 62 x 65 mm	108 x 62 x 65 mm
Weight	850 g	850 g

## SWITCH-POINT ADJUSTMENT

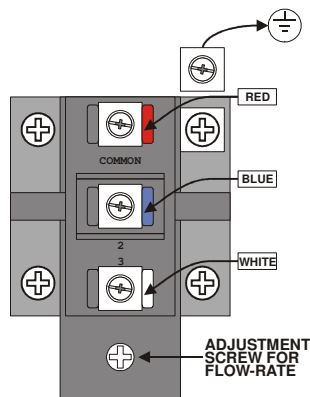
The flow switch is factory-set to the min. flow rate. To adjust the device to other levels, turn the adjustment screw clockwise. Table 1 lists the reset points and switch points for water. Data for other media must be determined empirically.

**Table 1. Reset and switch points for water**

paddles (L)	pipe Ø	rec. Q <sub>max</sub> (m <sup>3</sup> /h)	reset / switch point	
			min. flow (m <sup>3</sup> /h)	max. flow (m <sup>3</sup> /h)
1"	1"	3.6	0.6 / 1.0	2.0 / 2.1
1"	1-1/4"	6.0	0.8 / 1.3	2.8 / 3.0
1"	1-1/2"	9.0	1.1 / 1.7	3.7 / 4.0
1"+2"	2"	15.0	2.2 / 3.1	5.7 / 6.1
1"+2"	2-1/2"	24.0	2.7 / 4.0	6.5 / 7.0
1"+2"+3"	3"	36.0	4.3 / 6.2	10.7 / 11.4
1"+2"+3"	4"	60.0	11.4 / 14.7	27.7 / 29.0
1"+2"+3"+Z*	4" Z	60.0	6.1 / 8.0	17.3 / 18.4
1"+2"+3"	5"	94.0	22.9 / 28.4	53.3 / 55.6
1"+2"+3"+Z*	5" Z	94.0	9.3 / 12.9	25.2 / 26.8
1"+2"+3"	6"	120.0	35.9 / 43.1	81.7 / 85.1
1"+2"+3"+Z*	6" Z	120.0	12.3 / 16.8	30.6 / 32.7
1"+2"+3	8"	240.0	72.6 / 85.1	165.7 / 172.5
1"+2"+3"+Z*	8" Z	240.0	38.6 / 46.5	90.8 / 94.2

\*For models with the suffix "Z," the longest paddle must be used to obtain the values indicated in this table. The Z = 8" paddle must be cut to the proper length to fit into the pipe without touching the inside.

## FIELD WIRING



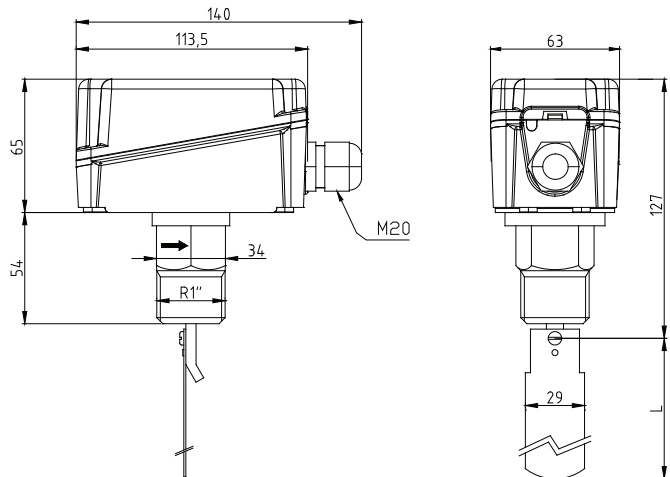
**Fig. 1. Field wiring**

Connect the red and the white contacts. The contact "red-white" opens when the flow drops below the switch point.

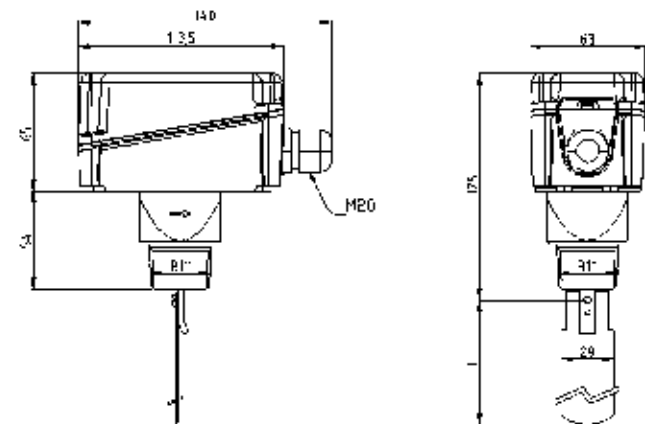
When the flow is absent, the contact "red-blue" closes and can be used as a signal or alarm contact.

**NOTE:** If the flow switch is used as a min. flow controller, another device must be installed downstream for alarm condition activation.

## DIMENSIONS



**Fig. 2. S6065A1003 dimensions**



**Fig. 3. S6065A2001 dimensions**

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 Subject to change without notice. Printed in Germany

EN0B-0314GE51 R0711