

Description

Single point flow monitor with change over MIN/MAX monitoring function, suitable for water, oil, air and media with similar thermal conductivities. With either no delay, or with a 60 seconds switch on delay or 10 seconds change over delay.

Features

- Adjustable to a wide range of flow rates
- No moving parts in the flow
- Operation largely independent of pipe diameter
- LED status indication
- Fast response time
- MIN or MAX switch point
- Suitable for water, oil and air
- Cast aluminum weatherproof housing



SU1003

TECHNICAL DATA

General data		SU1003 Single Point Flow Monitor
Media		liquids, gases
Monitoring function	flow rate	1 switch point (MIN or MAX)
Display	flow rate	1 dual colour LED
Temperature range	medium and monitoring head	-25 ... +70 °C/-13 ... +158 °F
	electronic control unit	-25 ... +50 °C/-13 ... +122 °F
Electrical data		
Input voltage		AC 230, 115, 24 V 50/60 Hz +10 %, -15 % DC 24 V ±20 %
Power consumption		approx. 1,2 VA
Relay outputs	flow rate	1 SPDT contact AC 250 V/DC 30 V, 5 A
Flow monitoring		
Flow response level adjustment (steplessly by means of a potentiometer)		with gases: 0.5 ... 50 m/s / 2 ... 160 fps with liquids: 0.01 ... 4 m/s / 0.03 ... 13.1fps
Repeatability ⁽¹⁾		± 10 %
Response delay ⁽²⁾		2 s with water, 4 s with oil, 7 s with air selectable delay (no delay, 60 s switch-on delay or 10 s change over delay)
Switch point drift through temperature change of the medium		approx. ±0.7 %/°C (±0.4 %/°F)
Mechanical data		
Type and size of monitoring head		1/2"NPT, 3/4"NPT, 1"NPT
Pressure resistance of monitoring head ⁽³⁾		250 bar/3626 psi
Environmental protection	monitoring head	IP67
	electronic control unit	cast aluminum weatherproof FM, CSA approved housing
Materials	fitting	stainless steel 1.4571/AISI 316Ti
	sensor	stainless steel 1.4571/AISI 316Ti
	sealing	nickel based solder DIN 8513-L-Ni
	electronic control unit	Epoxy painted cast aluminum
Housing dimensions		114 mm x 114 mm x 89 mm/4.5" x 4.5" x 3.5"
⁽¹⁾ Of the set value, at constant temperature and flow conditions, and stable thermal conductivity. ⁽²⁾ Delay with the switch point set to 1 m/s and the flow at 2 m/s, after a sudden complete stop. ⁽³⁾ Admissible operating pressure to DIN 2401, measured at the max. admissible temperature (= max. medium temperature)		

Ordering information

Flow Monitor
SU1003 Single Point Flow Monitor

01 NEMA 4x; FM/CSA Approved Cast Aluminum Weatherproof Housing with Window

Power Input

03 115 V AC

04 24 V AC/DC

05 230 V AC

Process connection (see note 2)

050 1/2" MNPT (Standard)

075 3/4" MNPT

100 1" MNPT

F Mounting Configuration (Flanges, Spools, Tees, Removable Probe Assembly) - Please Specify (see note 1)

Sensor Material (see note 1)

SS 316 Ti, 1.4571

Insertion length (see note 2)

	1/2"MNPT	3/4"MNPT	1"MNPT
01	1"	1"	N/A
02	2"	2"	1"
04	4"	3"	3"
06	6"	5"	5"
08	8"	7"	7"
10	10"	9"	9"
00	Specify length in inches		

Options

0 No Selection

5 60 Sec. "Power On" Relay Delay to "De-energize" */**

6 10 Sec. "Setpoint Switching" Relay Delay to "De-energize" */**

7 Relay De-energized on "Flow" Condition

8 Relay De-energized on "No Flow" Condition (Standard)

11 SS Tag (Specify Markings)

Extension wire

0 No Selection

SU1003- 01- 03 -050- SS- 01- 5/8/11- 0 ordering example

Dimensions

Cast aluminum weatherproof housing

1/2"FNPT to 3/4" MNPT adaptor or 1/2"FNPT to 1" MNPT adaptor (See chart below)

Code **Process connection "A"** **"B"**

050	1/2" MNPT		0.7"
075 #	3/4"MNPT		0.9"
075 ##	3/4"MNPT		0.7"
100		1" MNPT	0.7"

Insertion length "C"

01	1.0" ¹	1.0" ¹	N/A
02	2.0" ¹	2.0" ¹	1.0" ³
04	4.0" ¹	3.0" ²	3.0" ³
06	6.0" ¹	5.0" ²	5.0" ³
08	8.0" ¹	7.0" ²	7.0" ³
10	10.0" ¹	9.0" ²	9.0" ³

1.0" & 2.0" insertion lengths
3.0" thru 9.0" insertion lengths
¹ No size adaptor
² 1/2"FNPT to 3/4"MNPT size adaptor supplied
³ 1/2"FNPT to 1"MNPT size adaptor supplied

Notes:

- If mounting, switch configuration or sensor material is other than shown in the ordering information please consult factory for pricing and availability.
 - A Pipe thread size adaptor is supplied for 3/4"MNPT and 1"MNPT process connections as shown in the chart in the above dimension drawing and is used with a Process Connection Code "050" probe in all cases. A Sensor Material Code "A" probe is shown in the above drawing. If insertion length is other than noted, please specify. Insertion length = from tip of probe to the start of the insertion threads or flange.
- * Field Selectable
** Time delay is inactive in standard unit

connection diagram

