

**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**

<b>General data</b>		<b>SU1003</b> 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
<b>Electrical data</b>		
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
<b>Flow monitoring</b>		
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 <sup>(1)</sup>		± 10 %
Response delay <sup>(2)</sup>		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)
<b>Mechanical data</b>		
Type and size of monitoring head		1/2"NPT, 3/4"NPT, 1"NPT
Pressure resistance of monitoring head <sup>(3)</sup>		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		125 mm x 115 mm x 107 mm/5" x 4.5" x 4.25"

<sup>(1)</sup> Of the set value, at constant temperature and flow conditions, and stable thermal conductivity.  
<sup>(2)</sup> Delay with the switch point set to 1 m/s and the flow at 2 m/s, after a sudden complete stop.  
<sup>(3)</sup> Admissible operating pressure to DIN 2401, measured at the max. admissible temperature (= max. medium temperature)

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**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

**Notes:**

1.) If mounting, switch configuration or sensor material is other than shown in the ordering information please consult factory for pricing and availability.

2.) 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.

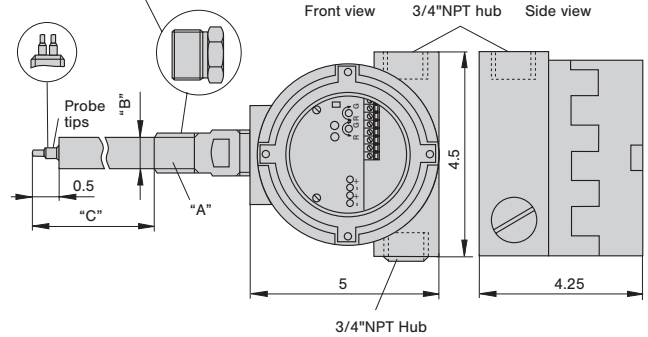
\* Field Selectable

\*\* Time delay is inactive in standard unit

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

# 1.0" & 2.0" insertion lengths

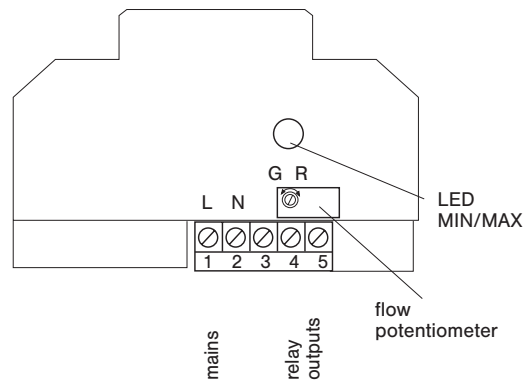
## 3.0" thru 9.0" insertion lengths

<sup>1</sup> No size adaptor

<sup>2</sup> 1/2"FNPT to 3/4"MNPT size adaptor supplied

<sup>3</sup> 1/2"FNPT to 1"MNPT size adaptor supplied

**connection diagram**



All dimensions in inch