

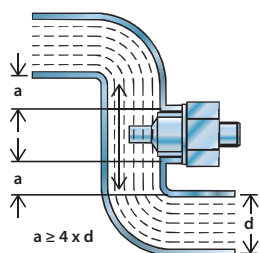
FCS PROBE FLOW MONITOR

PRODUCT OVERVIEW

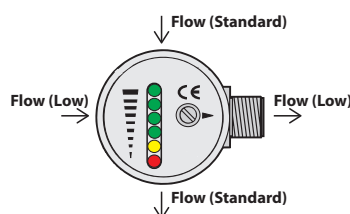
Mounting Instructions

Areas of turbulent flow occur whenever there is a change in the pipe construction (e.g. pipe inlets, pipe outlets, pipe elbows). To avoid an inaccurate output, the following guidelines should be observed:

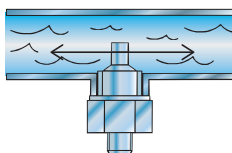
- A)** Pay special attention to the minimum distance ($a \geq 4 \times d$) to tube bend and intersections.



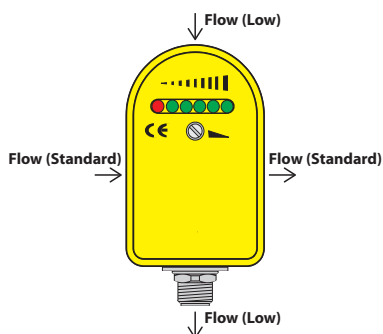
Proper Orientation For
Self-Contained Metal Housing



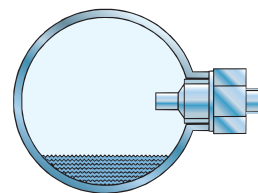
- B)** Flow monitor must be mounted from below in applications where medium does not completely fill the pipe.



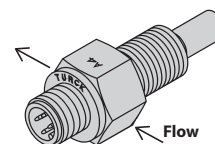
Proper Orientation For
Self-Contained Plastic Housing



- C)** If a possibility of deposit build-up exists, mount the flow monitor from the top.



Proper Orientation For
Remote Insertion Probe

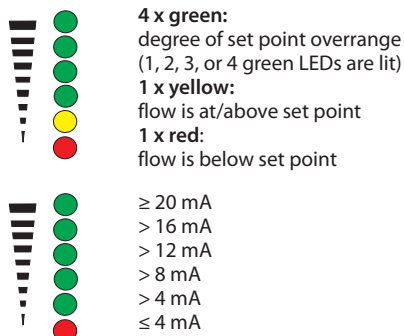


Setup – Operating and Display Functions

Self Contained Insertion Probe



6 LEDs for flow rate status indication:



Sealing screw (on front of device)
covers the potentiometer.

Potentiometer for the adjustment
of flow switch point. With analog
devices the potentiometer is used
to set the measuring range.

Flow Monitors

Flow Monitor Part Number Key - Insertion Probe Sensor

FCS - N1/2 A4P - AP8X - H1141 /...

Sensor Type

FCS = Insertion Probe Flow Sensor
FCTS = Flow Sensor with Temperature Setpoint

Fluid Connection

N1/2 = 1/2 NPT
N3/4 = 3/4 NPT
G1/4 = G1/4 (1/4 BSPP)
G1/2 = G1/2 (1/2 BSPP)
GL1/2 = G1/2 (1/2 BSPP with additional threading)
50 = 1.5 inch Tri-clamp

Housing

A4 = 316 Stainless Steel Housing and Probe
A2P = 303 Stainless Steel Probe with PBT Housing
A4P = 316 Stainless Steel Probe with PBT Housing
AL = 303 Stainless Steel Probe
HB = Hastelloy B
HC22 = Hastelloy C22
T = Dyflor (PVDF)
TN = Titanium w/B3 Coating

Special Option Codes

/A = Airflow
/L = Probe Length in mm
/D100 = +120°C (+248°F)
/D500 = 500 Bar rating
/D014 = Tri-clamp fitting

Electrical Connection

H1141 = **eurofast**[®]
H1140 = **eurofast**
B1151 = **minifast**[®]
B3141 = **microfast**[®]
B3151 = **microfast**

Circuitry

2AP8X = Dual N.O. PNP
AP8X = N.O. PNP
AN8X = N.O. NPN
ARX = N.O. Relay
RRX = N.C. Relay
LIX = 4-20 mA
NA = Remote (requires MK or MS 96)
NAEX = Intrinsically Safe

FLOW

TURCK

Flow Monitors

Probe style Flow Monitors

- Great for water or Oil
- IP65
- LED visualization of flow rate
- Great for Stamping Press Lubrication
Oil Monitoring, Weld Tip Protection,
Pump Run Dry Protection, and other
monitoring applications



Part Number	Flow Detection Range: Water (cm/s)	Flow Detection Range: Oil (cm/s)	Operating Voltage	Current Consumption	Fluid Connection	Output: Flow	Probe Length (mm)	Wiring	Optional Adapters	Drawing
FCS-N1/2A4P-AP8X-H1141	5-150	10-300	24 VDC +/-10%	≤100	1/2" NPT	PNP N.O.	42	2		1
FCS-N1/2A4P-LIX-H1141	5-150	N/A	24 VDC +/-10%	≤100	1/2" NPT	4-20 mA Linear Analog	42	1		3
FCS-N1/2A4P-LIX-H1141/D037	5-150	10-300	24 VDC +/-10%	≤100	1/2" NPT	4-20 mA Non-Linear Analog	42	1		3
FCS-G1/2A4P-AP8X-H1141	1-150	3-300	24 VDC +/-10%	≤60	G 1/2"	PNP NO	31	2		2
FCS-N1/2A4P-AP8X-H1141/L060	1-150	3-300	24 VDC +/-10%	≤60	1/2" NPT	PNP N.O.	60	2		1
FCS-N1/2A4P-AP8X-H1141/L100	1-150	3-300	24 VDC +/-10%	≤60	1/2" NPT	PNP N.O.	100	2		1
FCS-N1/2A4P-AP8X-H1141/L120	1-150	3-300	24 VDC +/-10%	≤60	1/2" NPT	PNP N.O.	120	2		1
FCS-N1/2A4P-ARX-B1151 115VAC	1-150	3-300	115 VAC +/-15%	≤60	1/2" NPT	Relay N.O.	42	3		4
FCS-N1/2A4P-RRX-B1151 115VAC	1-150	3-300	115 VAC +/-15%	≤60	1/2" NPT	Relay N.C.	42	4		4
FCS-N1/2A4P-ARX-B1151 230VAC	1-150	3-300	230 VAC +/-15%	≤30	1/2" NPT	Relay N.O.	42	7		4
FCS-N1/2A4P-ARX-B1151/L060/115VAC	1-150	3-300	115 VAC +/-15%	≤60	1/2" NPT	Relay N.O.	60	3		4
FCS-N1/2A4P-ARX-B1151/L080/115VAC	1-150	3-300	115 VAC +/-15%	≤60	1/2" NPT	Relay N.O.	80	3		4
FCS-N1/2A4P-ARX-B1151/L100/115VAC	1-150	3-300	115 VAC +/-15%	≤60	1/2" NPT	Relay N.O.	100	3		4
FCS-N1/2A4P-ARX-B1151/L120 115VAC	1-150	3-300	115 VAC +/-15%	≤60	1/2" NPT	Relay N.O.	120	3		4
FCS-N1/2A4P-ARX-B1151/L160/115VAC	1-150	3-300	115 VAC +/-15%	≤60	1/2" NPT	Relay N.O.	160	3		4
FCS-N1/2A4P-ARX-B3141 115VAC	1-150	3-300	115 VAC +/-15%	≤60	1/2" NPT	Relay N.O.	42	5		5
FCS-N1/2A4P-ARX-B3141/L060 115VAC	1-150	3-300	115 VAC +/-15%	≤60	1/2" NPT	Relay N.O.	60	5		5
FCS-N1/2A4P-ARX-B3151 115VAC	1-150	3-300	115 VAC +/-15%	≤60	1/2" NPT	Relay N.O.	42	6		5
FCS-N1/2A4P-ARX-B3151/L220 115VAC	1-150	3-300	115 VAC +/-15%	≤60	1/2" NPT	Relay N.O.	220	6		5

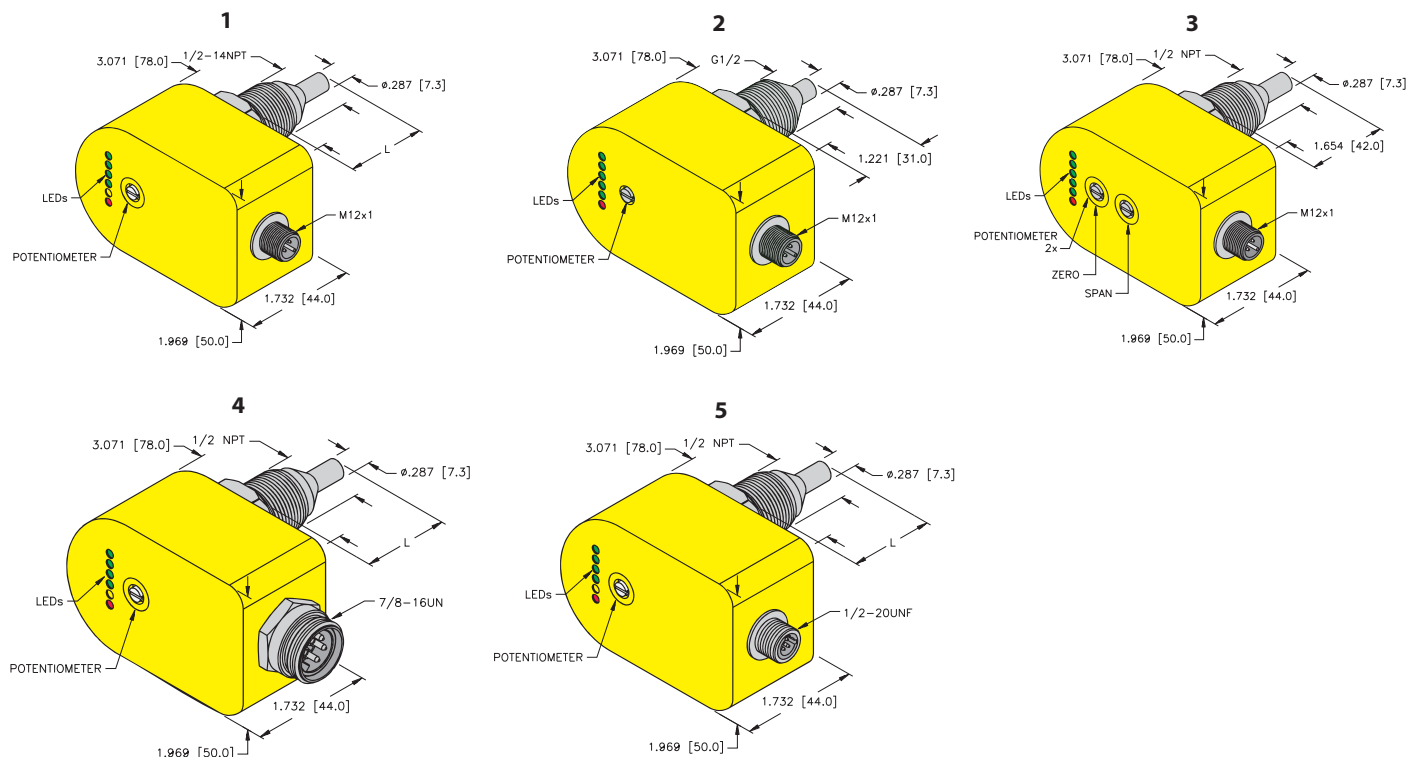
Specifications

Electrical	
Switching Current PNP outputs	≤400 mA
Analog Load 4-20 mA outputs	≤500Ω
Switching Current Relay Outputs	≤2A at 60 VDC
Environmental	
Protection	IP65
Pressure Rating	1450 PSI
Ambient Temperature	-20 to 70 °C
Media Temperature	-20 to 80 °C

Materials	
Housing	PBT
Cable Connector	303 Stainless Steel
Wetted Parts	316 Ti Stainless Steel
Operational	
Time Delay before Availability	2-15 seconds 8 seconds typical
Response time	1-15 seconds, 2 seconds typical
Response time	1-13 seconds, 2 seconds typical
Maximum Temperature Change	4.2 °C/second

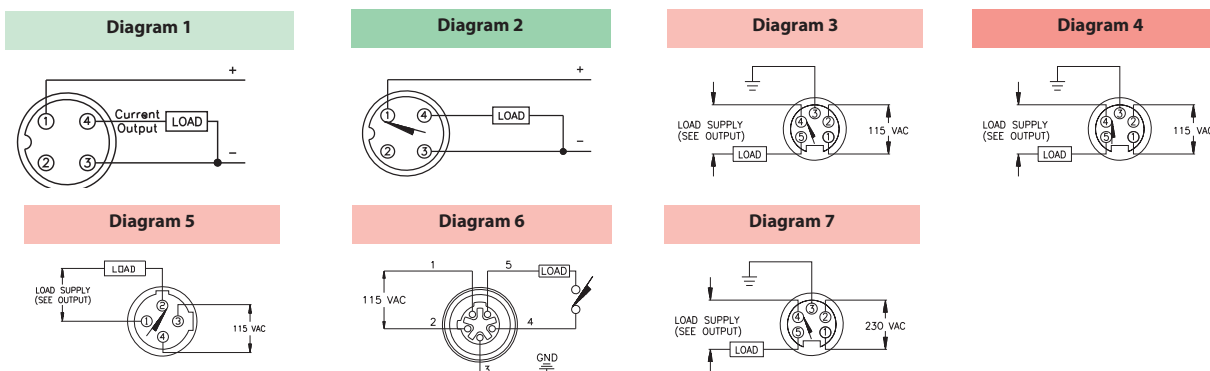
Flow Monitors

Drawings



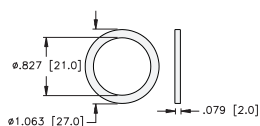
L = Probe length

Wiring Diagrams

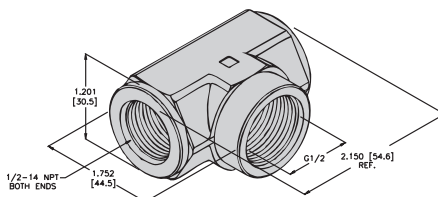


Adapter Options

G 1/2 Gasket
FD-G1/2AFM30/34 (M6875013)



Pipe Tee (Stainless Steel)
N1/2-G1/2-SST (A6060)



Pipe Tee (Brass)
N1/2-G1/2-BT (A6050)

