

The Flow-through Electrode is a unique probe configuration within Mercap level measurement instrument program that is used in a liquid pipe system to detect product quality or interface of a liquid. It can provide accurate interface detection. For example, the percentage of water in a hydrocarbon mixture can be detected. It can be used in high temperature and high pressure conditions and provides accurate reliable measurement.

The PTFE electrode detects changes in the dielectric constant of the material flowing through the pipe. The probe is resistant to material build-up. As the material never comes into contact with metal parts, a high degree of chemical resistance is achieved.

The flow diameter of the electrode is equal to the internal diameter of the piping in which the electrode is positioned. Therefore, the flow-through electrode does not form an obstacle for the product flowing through the pipe. This eliminates turbulence and ensures accurate measurements.

**Product Features**

- No need for an external counter electrode
- High sensitivity, accurate measurement of small changes
- Rugged construction with no moving parts
- Suitable for use on any ferrous or non-ferrous piping system
- High temperature and pressure resistant
- Unaffected by turbulence inside a pipe

***Technical Specifications*****FTS Series****Process Connections**

- Sandwich, acc. ANSI and DIN standards

**Fitting Length**

- 55 mm (2.1")

**Material**

- AISI 316L or carbon steel C 35

**Maximum Pressure**

- 50 bar (dependent on pressure rated flange)

**Maximum Temperature**

- 200°C (398°F)

**Lining**

- PTFE (1 mm thick)

**Transmitter Enclosure**

- Aluminum ø160 mm (6.3")

**Waterproof Classification**

- IP 65, NEMA 4/TYP E 4, acc. DIN 40050

**FTF Series****Process Connections**

- Flange, acc. ANSI and DIN standards

**Fitting Length**

- 100 mm (3.9")

**Material**

- AISI 316L or carbon steel C 35

**Maximum Pressure**

- 50 bar (dependent on pressure rated flange)

**Maximum Temperature**

- 200°C (398°F)

**Lining**

- PTFE (1 mm thick)

**Transmitter Enclosure**

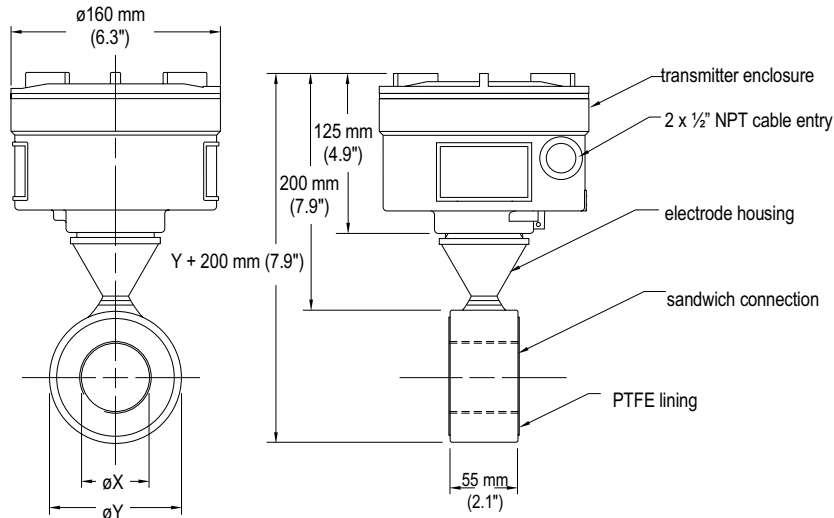
- Aluminum ø160 mm (6.3")

**Waterproof Classification**

- IP 65, NEMA 4/TYP E 4, acc. DIN 40050

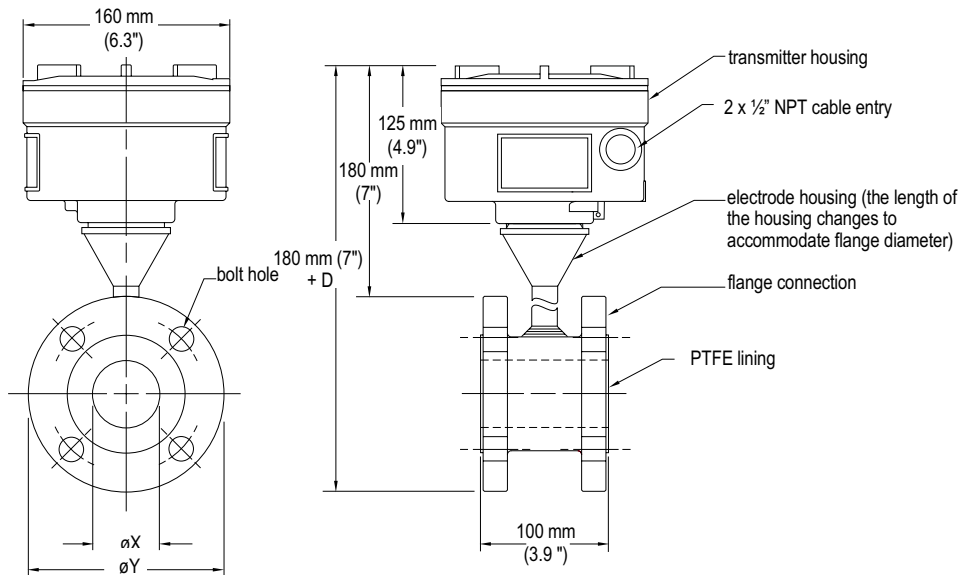
## Dimensions

### FTS Series



In applications that exceed 85°C (185°F) or 70°C (158°F) in Ex zones, a thermopart should be used to further separate the transmitter housing and the electrode housing.

### FTF Series



### Flanges acc. ANSI Standards (inches)

Class nom. size	150 lbs.			300 lbs.			600 lbs.		
	D	X	Y	D	X	Y	D	X	Y
1"	4.3	1.1	2.5	4.9	1.1	2.8	4.9	1.0	2.7
2"	6.0	2.1	4.0	6.5	2.1	4.3	6.5	1.9	4.2
3"	7.5	3.1	5.2	8.2	3.1	5.7	8.3	2.9	5.7
4"	9.0	4.0	6.7	10.0	4.0	7.0	10.8	3.8	7.5
5"	10.0	5.1	7.6	12.5	5.1	8.4	13.0	4.8	9.4
8"	13.5	8.0	10.9	15.0	8.0	12.0	16.5	7.6	12.5
10"	16.0	10.0	13.3	17.5	10.0	14.1	20.0	9.8	15.6
12"	19.0	12.0	16.0	20.5	12.0	16.5	22.0	11.8	17.9

### Flanges acc. DIN Standards (mm)

Class nom. size	PN16			PN25			PN40		
	D	X	Y	D	X	Y	D	X	Y
NW 25	115	24.8	71	115	24.8	71	115	24.8	71
NW 50	165	51.2	107	165	51.2	107	165	51.2	107
NW 80	200	82.5	142	200	82.5	142	200	82.5	142
NW 100	220	100.8	162	235	100.8	167	235	100.8	167
NW 125	250	125.0	192	270	125.0	193	270	125.0	193
NW 150	285	150.0	217	300	150.0	223	300	150.0	223
NW 200	340	204.2	272	360	203.4	283	375	203.4	290
NW 250	405	254.4	328	425	252.8	340	450	252.8	352
NW 300	460	303.8	383	485	302.0	400	515	302.0	417