

9.0 Model Series FTN to 88 psi (PN6)

Description

The FTN ITABAR-sensor series is designed to measure the volumetric flow of liquids, gases and steam.

The construction features a welding boss between the pipe and the sensor-related parts and a compression fitting to seal the sensor profile. A safety chain between the installed sensor and the pipe serves as a protective device during the removal process.

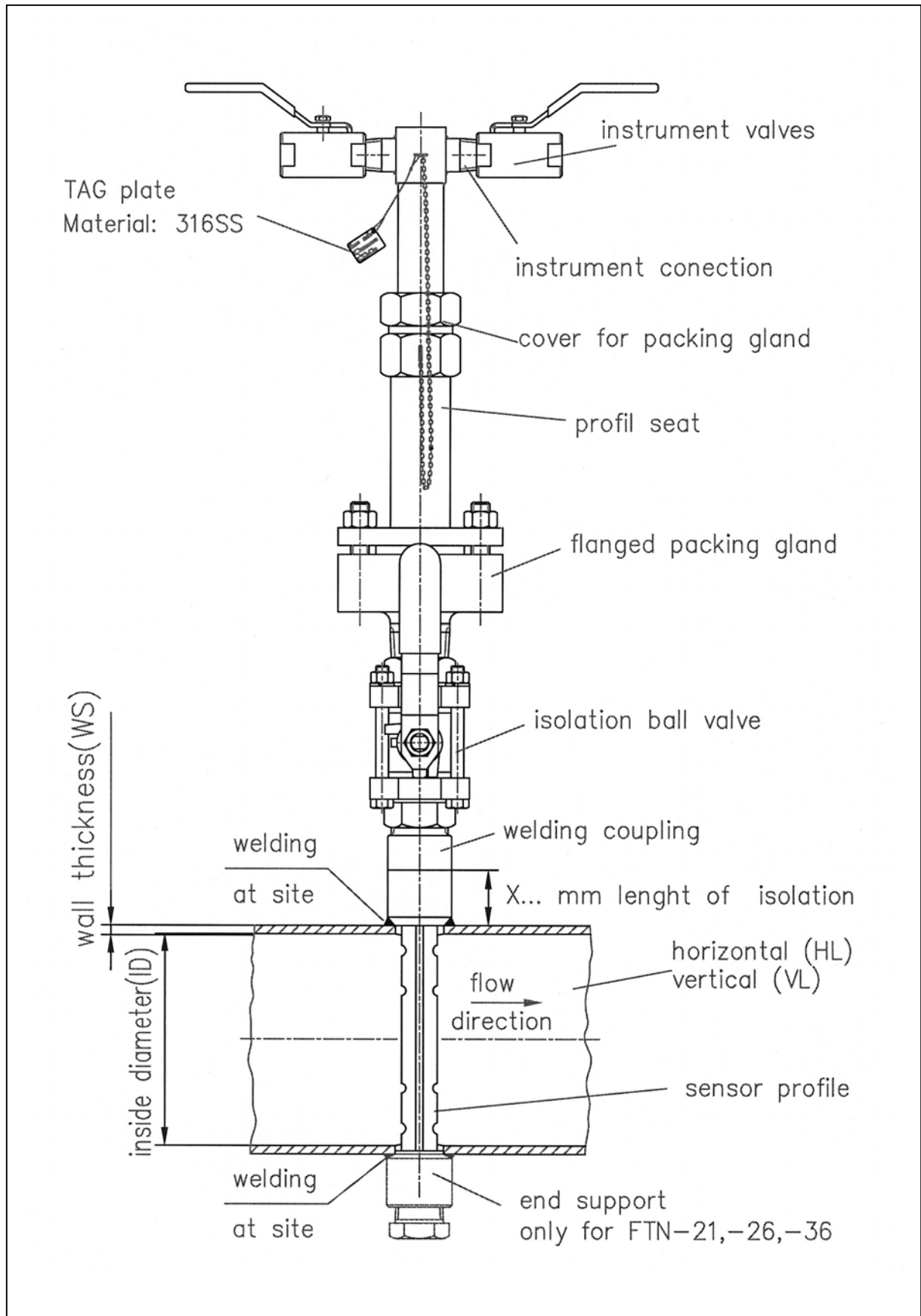
A FTN sensor is usable up to an operating pressure of 88 psi and an operating temperature of up to 200°C / 392°F.

In cases where the WINFLOW sizing program recommends a counter end support because of the high flow velocity it is better to select the next size sensor model. During the initial installation it is not possible to install a sensor counter support. During subsequent installations under pressure it can also be difficult to meet the counter support at the opposite end of the pipe. Furthermore the maximum installation values listed in the WINFLOW-program must be observed.



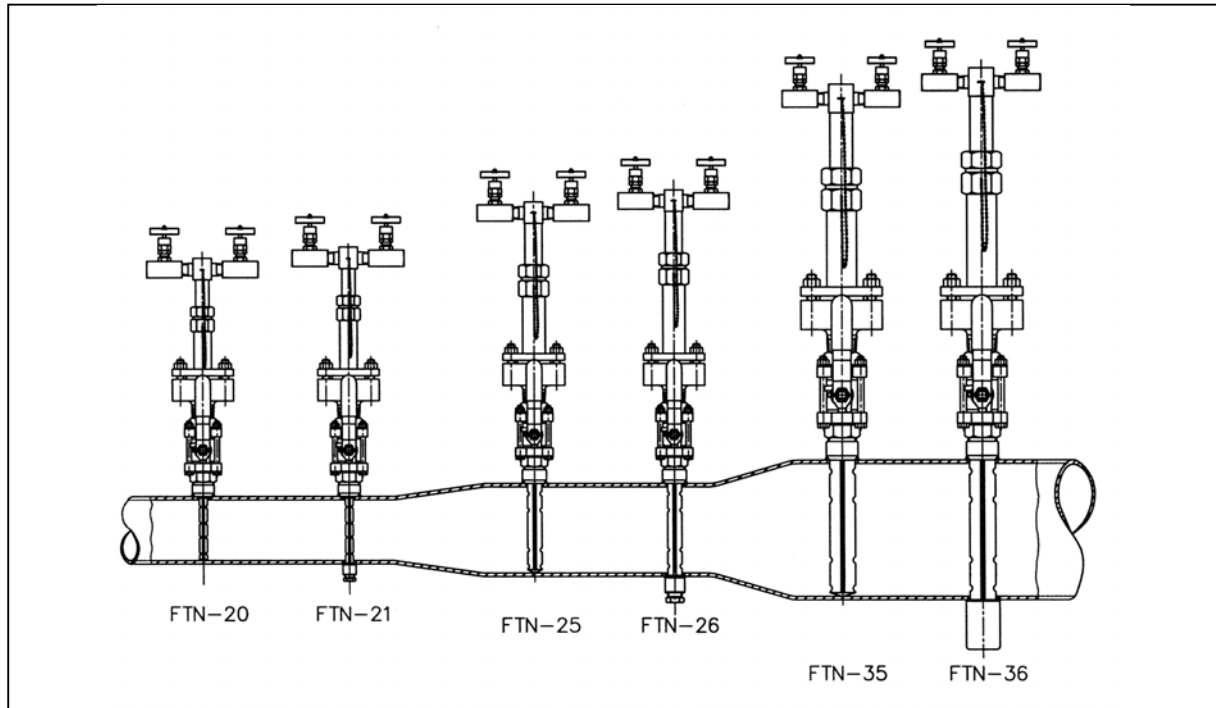
Fig.:9.1: Pitot tube sensor FTN-25

Construction Drawing for ITABAR Series FTN



Order Data for Model Series FTN20/21/25/26/35/36 to 88 psi (PN6)

1. Sensor Type



Pipe diameter		Maximum allowable volumetric flow in GPM					
		Sensor type					
Inches	mm	FTN -20	FTN -21	FTN -25	FTN -26	FTN -35	FTN -36
1 1/2	DN 40	175	502	---	---	---	---
2	DN 50	260	708	---	---	---	---
2 1/4	DN 65	409	1069	---	---	---	---
3	DN 80	572	1443	---	---	---	---
4	DN 100	787	1936	902	2398	---	---
5	DN 125	1047	2512	1240	3168	---	---
6	DN 150	---	---	1579	3938	---	---
8	DN 200	---	---	2270	5473	---	---
10	DN 250	---	---	3027	7150	---	---
12	DN 300	---	---	3841	8962	7739	18519
14	DN 350	---	---	4637	10718	9438	22321
16	DN 400	---	---	5403	12460	11154	26158
20	DN 500	---	---	7013	15976	14462	33528
24	DN 600	---	---	8588	19483	17850	41087
28	DN 700	---	---	10212	23069	21370	48923
32	DN 800	---	---	11910	26870	24965	56962
36	DN 900	---	---	---	30839	---	65155
40	DN 1000	---	---	---	34896	---	73189
48	DN 1200	---	---	---	43010	---	90090
56	DN 1400	---	---	---	---	---	106695
64	DN 1600	---	---	---	---	---	123292
72	DN 1800	---	---	---	---	---	139264
80	DN 2000	---	---	---	---	---	---

1. Order specification ITABAR-FLOW-Sensor, series FTN-20 / 21

1. type of sensor	
20	without end support
21	with end support
2. inside diameter and wall thickness.	
ID / W.-thickn.	inside diameter and wall thickness in inches (or mm), please specify
3. sensor material	
S	316 SS
4. welding coupling	
0	without
1	material: C.S.
2	material 316 SS
5. end support (only FTN-21)	
0	without end support
C	end support, material: C.S.
S	end support, material: 316 SS
6. isolation valve for the sensor profile	
A01	ball valve 1", material: C.S. PN16 / 150 lbs
A02	ball valve 1", material: 1.4401 PN16 / 150 lbs
7. flanged packing gland	
S	material: 316 SS
8. cage nipple	
PC	material: C.S.
PS	material: 316 SS 1.4571
9. packing material for the flanged and welded packing gland	
1	packing material: PTFE, max 200°C
2	packing material: Graphit, max 400°C
10. thermal isolation	
KI	without
X..	thermal isolation in inches or mm, please specify
11. piping run	
HL	horizontal
VL	vertikal
12. process connection, s. page 91	
13. instrument valves s. page 91	

FTN- /

1. Order specification ITABAR-FLOW-Sensor, series FTN-25/26

1. type of sensor	
20	without end support
21	with end support
2. inside diameter and wall thickness.	
ID / W.-thickn.	inside diameter and wall thickness in inches (or mm), please specify
3. sensor material	
S	316 SS
4. welding coupling	
0	without
1	material: C.S.
2	material 316 SS
5. end support (only FTN-26)	
0	without end support
C	end support, material: C.S.
S	end support, material: 316 SS
6. isolation valve for the sensor profile	
A05	ball valve 1 1/2", material: C.S. PN16 / 150 lbs
A06	ball valve 1 1/2", material: 1.4401 PN16 / 150 lbs
7. flanged packing gland	
S	material: 316 SS
8. cage nipple	
PC	material: C.S.
PS	material: 316 SS 1.4571
9. packing material for the flanged and welded packing gland	
1	packing material: PTFE, max 200°C
2	packing material: Graphit, max 400°C
10. thermal isolation	
KI	without
X..	thermal isolation in inches or mm, please specify
11. piping run	
HL	horizontal
VL	vertikal
12. integrated RTD resistance thermocouple	
T0	without
TA	3-wire
TB	3-wire, with ex-proofness
13. process connection, s. page 91	
14. instrument valves s. page 91	

FTN- /

1. Order specification ITABAR-FLOW-Sensor, series FTN-35 / 36

1. type of sensor	
35	without end support
36	with end support
2. inside diameter and wall thickness.	
ID / W.-thickn.	inside diameter and wall thickness in inches (or mm), please specify
3. sensor material	
S	316 SS
4. welding coupling	
0	without
1	material: C.S.
2	material 316 SS
5. end support (only FTN-36)	
0	without end support
C	end support, material: C.S.
S	end support, material: 316 SS
6. isolation valve for the sensor profile	
A09	ball valve 2", material: C.S. PN16 / 150 lbs
A10	ball valve 2", material: 1.4401 PN16 / 150 lbs
7. flanged packing gland	
S	material: 316 SS
8. cage nipple	
PC	material: C.S.
PS	material: 316 SS
9. packing material for the flanged and welded packing gland	
1	packing material: PTFE, max 200°C
2	packing material: Graphit, max 400°C
10. thermal isolation	
KI	without
X..	thermal isolation in inches or mm, please specify
11. piping run	
HL	horizontal
VL	vertikal
12. integrated RTD resistance thermocouple	
T0	without
TA	3-wire
TB	3-wire, with ex-proofness
13. process connection, s. page 91	
14. instrument valves s. page 91	

FTN- /

2. Order specification ITABAR-Flow-Sensor, series Flo-Tap

Instrument connection and shut-off device

type FTN- 20, 21, 25, 26, 35, 36

type FTM- 20, 21, 25, 26, 35, 36

instrument connection

A04	sensorhead with 1/4" NPT outside thread
A03	sensorhead with 1/2" NPT outside thread
A06	flange plate to direct mount a 3-valve manifold
A07	flange plate to direct mount a 5-valve manifold



shut-off device for effect pressure pipe.

A00	without shut-off device
A55	ball valve PN40, case C.S. / female thread 1/2" NPT , packing: Teflon
A56	ball valve PN40, case 1.4401. / female thread 1/2" NPT , packing: Teflon
A57	ball valve PN40, case C.S. / female thread 1/4" NPT , packing: Teflon
A58	ball valve PN40, case 1.4401. / female thread 1/4" NPT , packing: Teflon
A59	shut-off valve 1/4" NPT, PN400, case C.S. / female thread 1/4" NPT packing: graphite
A60	shut-off valve 1/4" NPT, PN400, case 1.4401 / female thread 1/4" NPT packing: graphite
A61	shut-off valve 1/2" NPT, PN400, case C.S. / female thread 1/2" NPT packing: graphite
A62	shut-off valve 1/2" NPT, PN400, case 1.4401 / female thread 1/2" NPT packing: graphite
A90	shut-off valve 1/2" NPT, 800 lbs, C-Stahl / female thread 1/2" NPT , packing: graphite
A91	shut-off vave 1/2" NPT, 800 lbs, 1.4401 / female thread 1/2" NPT, packing: graphite
A63	shut-off valve 1/2" NPT, PN10, PTFE
A64	shut-off valve G 1/2", PVDF
A66	direct mount, with 3-valve manifold, PN400, case 1.4401 / packing: PTFE (only with A06)
A67	direct mount, with 3-valve manifold, PN10, case PTFE / packing: PTFE (only with A06)
A71	direct mount, with 5-valve manifold, PN400, case 1.4401 / packing: PTFE (only with A07)

