

WALL MOUNT ULTRASONIC FLOW METER

TRODEKS®

For Clean Liquids

FDT-2W - Normal system

1 YEAR
WARRANTY



- ✓ Accuracy 0.5%
- ✓ Repeatability 0.2%
- ✓ Positive, Negative and Net Totalizer
- ✓ 2-Line LCD Display
- ✓ Clamp on - Insertion - In Line sensor
- ✓ RS485 Output
- ✓ 4 to 20 mA Output



FDT-2W ultrasonic flow meter is designed to measure the fluid velocity of liquid in a full/closed pipe. It is a measurement system which is both easy to install and use. The FDT-2W operates according to the difference in the transit time of flight measured, and determines the flow velocity by measuring the travel time of a pulse from one transducer to the next. Flow in the same direction takes

less time to travel to the second transducer than does flow in the opposite direction. Electroacoustic transducers receive and emit brief ultrasonic pulses through the liquid of the pipe. Transducers are vertically placed at both sides of the measured pipe. Sensors are placed on the pipe and fastened by means of a In Line - Clamp on - Insertion. The display will quickly show the flow velocity. The FDT-2W can be used for metallic, plastic and rubber tubes.

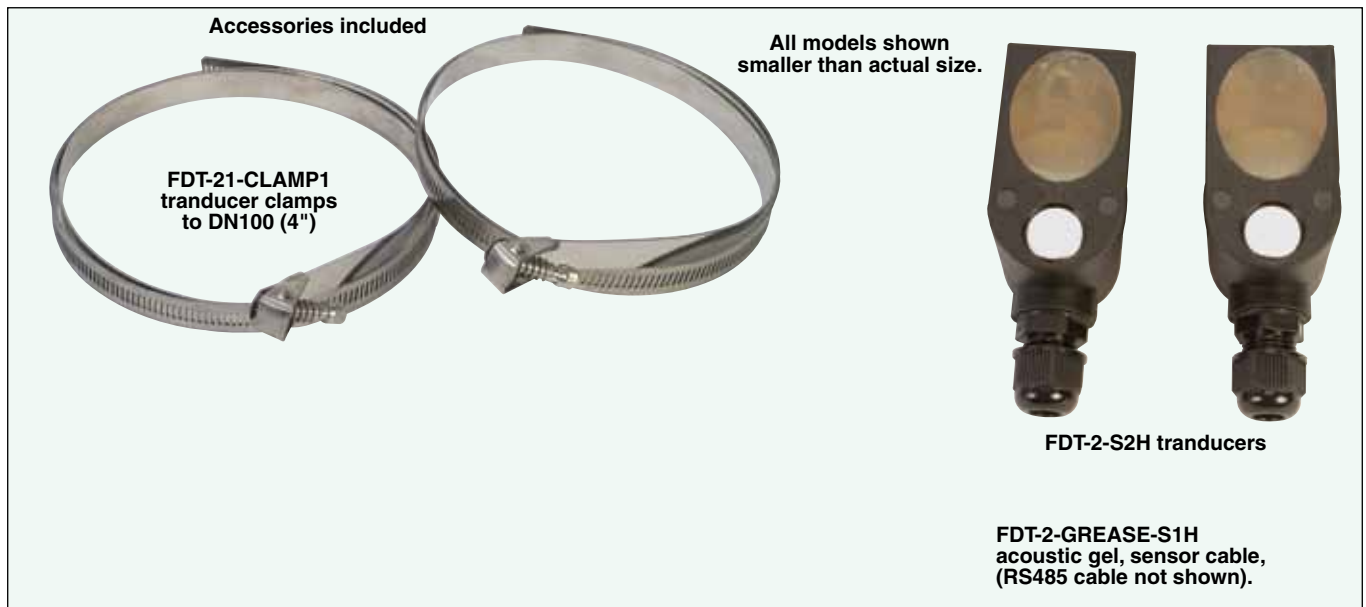


FDT-2W inside view.

SPECIFICATIONS

Accuracy: $\pm 0.5\%$ of reading $> (0.2 \text{ m/s}) 0.6 \text{ ft/s}$
Repeatability: 0.2%
Linearity: 0.5%
Response Time: 0 to 999 seconds (user configured)
Velocity: $(\pm 0.01 \text{ to } 30 \text{ m/s}) \pm 0.03$ to 105 ft/s bi-directional
Temperature Range: Standard with High
Temperature Transducers: 0 to 160°C (32 to 320°F)
Pipe Size: DN 20 to 100 mm (0.75 to 4") standard [up to DN 6000 mm (236") with optional transducers]
Transducer Frequency: 1 MHz
Rate Units (User Configured): Meter, feet, cubic meter, cubic feet, USA gallon, oil barrel, USA liquid barrel, imperial liquid barrel, million USA gallons
Totalizer: 7-digit totals for positive, negative and net flow

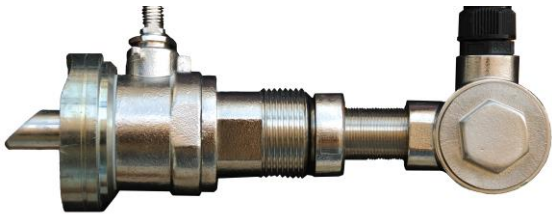
Liquid Types: Most liquids including clean water, sea water, waste water, chemical liquids, oil, crude oil, alcohol, beer, and more
Suspension Concentration: $\leq 20,000$ ppm (may contain very small amounts of air bubbles)
Pipe Material: All metals, most plastics and fiberglass
Security: Programmable lock-out code
Display: 2 x 16 english letters
Power: 85 to 264 Vac
Communications: RS485 (baud rate from 75 to 115,200 bps)
Output: 4 to 20 mA
Transducer Cable Length: 5 m (15')
Data Logger: Built-in, stores over 2000 lines of data
Totalizer/Calibration: 7-digit press-to-go for calibration
Housing: ABS plastic with aluminum alloy protective carrying case
Case: NEMA 4 (IP65)
Dimensions: 29 H x 20 W x 9 cm D (11.5 x 8 x 3.5")
Weight: 514 g (1.2 lb)



Parameters	S2-Type	M2-Type	L2-Type
Pipe Size (mm)	20 to 100DN	50 to 700DN	300 to 6000DN
Pipe Size (inch)	¾ to 4	2 to 28	12 to 240
Material	ABS		
Frequency	1 MHz		
Calibration	Calibrated with the main unit		
Magnetism	Magnetic		Non-magnetic
Temperature	0 to 160°C (32 to 320°F)		
Protection Class	NEMA 4 (IP65)		
Dimensions mm (inch)	45 x 30 x 30 (1.8 x 1.2 x 1.2)	60 x 45 x 45 (2.4 x 1.8. x 1.8)	80 x 70 x 55 (3.1 x 2.8 x 2.2)
Weight g (oz)	75 (2.6)	250 (8.8)	650 (23)
Liquid Types	Fresh water, salt water, chemical liquids, oil, crude oil, alcohol, beer, etc.		
Suspension Concentration	≤20,000 ppm, may contain very small amount of air bubbles		
Pipe Material	All metals, most plastics, fiberglass, etc.		
Dedicated Shielded Transducer Cable	Standard length 5 meter x 2, can be extended to 10 meter x 2 or 15 meter x 2		

Accessories

Model No.	Description	Weight g (oz)	Pipe Size mm (inch)
FDT-2-S2H	Replacement small pipe standard transducer	75 (2.6)	20 to 100 (0.75 to 4)
FDT-2-M2H	Medium pipe standard transducer	250 (8.8)	50 to 700 (2 to 28)
FDT-2-L2H	Large pipe standard transducer	650 (23)	300 to 6000 (12 to
236) FDT-2-CLAMP1	Replacement pipe clamp set for up to DN100 (4")		
FDT-2-CLAMP2	Replacement pipe clamp set for up to DN200 (8")		
FDT-2-CLAMP3	Replacement pipe clamp set for up to DN300 (12")		
FDT-2-CLAMP4	Replacement pipe clamp set for up to DN400 (16")		
FDT-2-CLAMP5	Replacement pipe clamp set for up to DN500 (20")		
FDT-2-CLAMP6	Replacement pipe clamp set for up to DN600 (24")		
FDT-2-GREASE-S1	Replacement acoustic gel for standard transducers		
FDT-2-GREASE-S1H	Replacement acoustic gel for high-temperature transducers		



Insertion sensor – wetted sensors

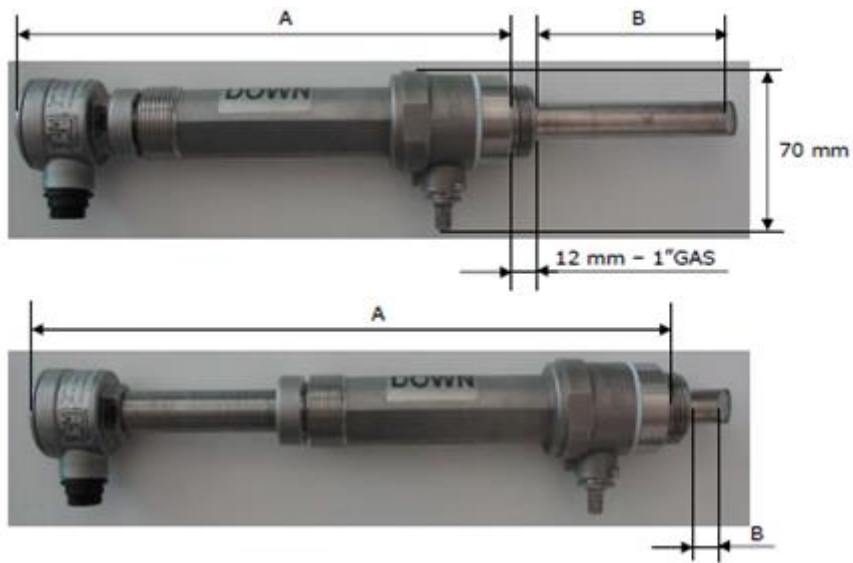
Max. pressure 40 bar

Temperature range -20 +160°C

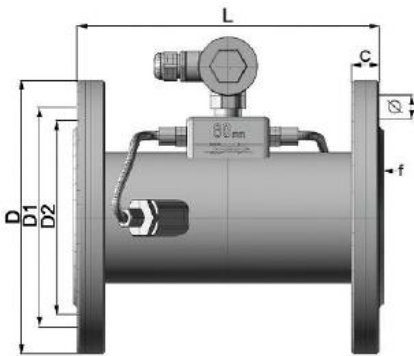
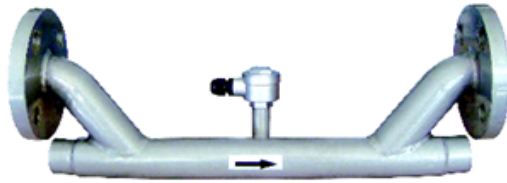
Max cable length: 200M

Frequency 1 MHz

insertion sensors dimensions:



sensor type	insertion	A	B
TTS100-B-NG-1" (Short)	Minimum	170mm	8mm
	Maximum	137mm	30mm
TTS100-B-NG-1" (Long)	Minimum	295mm	8mm
	Maximum	220mm	85mm



inline flanged sensors

max pressure 40 bar depending from the DN

Temperature range -40 + 160 °c

Max cable length: 200m

Normal size from DN50 to DN1000 - optional DN6000 mm

Nominal Pressure Rate PN16

Inline flanged sensors dimensions:

Nominal diameter(m m)DN	Rated pressure (Mpa)	π-type	Standard-pipe	Flange dimension(mm)					
		L1	L2	D	D1	D2	f	N-Φ	Flange thickness
15	2.5	320		95	65	45	2	14×4	14
20		360		105	75	55	2	14×4	16
25		390		115	85	65	3	14×4	16
32		450		140	100	76	3	18×4	18
40		500		150	110	84	3	18×4	20
50	1.6		200	160	125	100	3	18×4	22
65			200	180	145	120	3	18×4	24
80			225	195	160	135	3	18×8	24
100			250	215	180	155	3	18×8	26
125			250	245	210	185	3	18×8	28
150			300	280	240	210	3	23×8	28
200			350	335	295	265	3	23×12	30

250			450	405	355	320	3	25×12	32
300			500	460	410	375	4	25×12	32
350			550	520	470	435	4	25×16	34
400			600	580	525	485	4	30×16	38
400	1.0		600	565	515	482	4	25×16	30
450			700	615	565	532	4	25×20	30
500			800	670	620	585	4	25×20	32
600			1000	780	725	685	5	30×20	36
700			1100	860	810	775	5	24×25	32
800			1200	975	920	880	5	24×30	32
900			1300	1075	1020	980	5	24×30	34
1000			1400	1175	1120	1080	5	28×30	36

Londen - UK

Phone: 00447960726366

Email: info@trodeks.com

Web: www.Trodeks.com

Flat 9 Queen Elizabeth 50 Queens Road Weybridge KT13 0AZ