



DESCRIPTION

The **Dynasonics DTFXL Series ultrasonic flow meter** measures water flow in a wide variety of pipe sizes and pipe materials, using clamp-on sensors that attach to the outside of the pipe. This non-invasive, non-contact flow meter provides instantaneous flow rate and accumulated flow and provides a 4-20 mA output as well as pulse outputs. The **DTFXL Series** flow meter is easy to install, has a large bidirectional flow range, and comes with or without a display. Configuration, monitoring, and calibration of the **DTXFL** is accomplished with an easy-to-use software package via a cable connection from a PC to the flow meter. For systems using water/glycol solutions, the higher-powered DB Series ultrasonic flow meter may perform better.



DTFXL4-AN1-NN

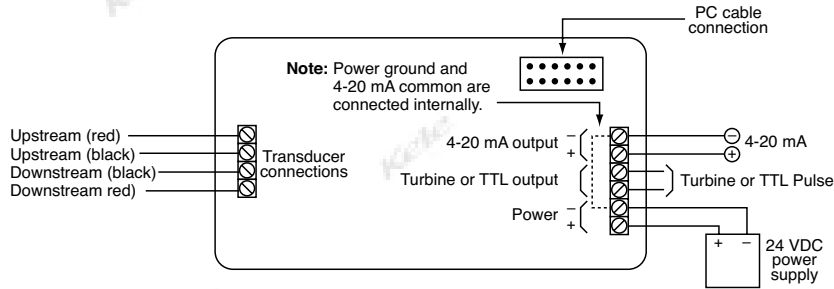
FEATURES

- **Bidirectional flow range for changeover systems**
- **Non-invasive, no system down time to install**
- **4-20 mA output plus choice of pulse outputs**

SPECIFICATIONS	
Supply Voltage	12 to 28 VDC
Frequency	0-1000 Hz for Turbine output (non-ground referenced AC and 100 mV pp minimum), switch selectable; 5 VDC pp ground-referenced square wave for TTL output
Supply Current	0.25 A
Maximum Output Impedance	900Ω maximum for 4-20 mA output; source power can share common with power supply
Outputs	4-20 mA and Turbine or TTL
Conduit Opening	1/2" conduit knockout (7/8" hole, 2.2 cm)
Cable Length	Remote transducer models available with 20' (6.1m), 50' (15m), or 100' (30m) cables
Accuracy	± 1.0% of reading above 1 fps (0.3 mps) velocity, ± 0.01% of reading below 1 fps (0.3 mps)
Response Time	0.3 to 30 seconds, adjustable
Display	Two-line x eight-character LCD
Operating Temperature	-40° to 185°F (-40° to 85°C); remote DTTS/DTTN transducers have upper limit of 250°F (121°C) and high temperature DTTT transducers have upper limit of 400°F (200°C)
Velocity Range	0.1 to 40 fps (feet/second), 0.03 to 12.4 mps (meters/second), bi-directional
Pipe Size Range	1/2" to 100" (1.2 to 254 cm)
Media Compatibility	Most clean liquids or liquids with some suspended solids or aeration, not recommended for glycol solutions, not for steam; for water/glycol systems the DE Series is recommended
Enclosure Rating	NEMA 4X as long as a liquid-tight connector is used
Approvals	ANSI/ISA 582.01; CSA C22.2 No. 213, E79-15-95
Warranty	1 year

DIMENSIONS											
Integral Enclosure						Remote Enclosure					
A	B	C	D DIA	E	F	G	H	I	J DIA	K	
in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	in. (mm)	
6.72 (170.7)	3.17 (80.5)	2.57 (65.3)	0.87 (22.2)	1.33 (33.8)	0.85 (21.6)	0.77 (19.6)	1.78 (45.2)	3.74 (95)	0.22 (5.6)	7.01 (178)	

WIRING



Note: Integral model transmitters have conduit knockout connection on the right side of the enclosure. Remote models have two conduit holes on the bottom side of the enclosure.

ORDERING INFORMATION

MODEL	DESCRIPTION
DTFXL1	Transmitter without display
DTFXL2	Transmitter with display
DTFXL3	Transmitter without display, UL enclosure
DTFXL4	Transmitter with display, UL enclosure
PIPE SIZE*	
A	1/2" ANSI carbon steel
B	3/4" ANSI carbon steel
C	1" ANSI carbon steel
D	1 1/4" ANSI carbon steel
E	1 1/2" ANSI carbon steel
F	2" ANSI carbon steel
G	1/2" copper
H	3/4" copper
I	1" copper
J	1 1/4" copper
K	1 1/2" copper
L	2" copper
M	1/2" tubing (plastic)
N	3/4" tubing (plastic)
P	1" tubing (plastic)
Q	1 1/4" tubing (plastic)
R	1 1/2" tubing (plastic)
S	2" tubing
X	For DTTN, DTTH transducers**
Y	For DTTS, DTTC transducers**
CONNECTOR OPTIONS	
N	1/2" conduit knockout
OUTPUT SIGNALS	
1-NN	4-20 mA and pulse

* A-S includes built in transducers

** X-Y requires remote transducers order separately

Two remote transducers for small pipes (with "Y" pipe size)	
MODEL	DESCRIPTION
DTTS	Remote transducers for 1/2" to 2" pipes
DTTC	High Temperature transducer for 1/2" to 2" pipes
PIPE SIZE	
D	1/2"
F	3/4"
G	1"
H	1 1/4"
J	1 1/2"
L	2"
PIPE TYPE	
P	ANSI carbon steel
C	Copper
T	Tubing
CABLE LENGTH	
020	20 feet (6.1 m)
050	50 feet (15 m)
100	100 feet (30 m)
CABLE ARMOR OPTION	
N	No armor
A	Flexible armor
CABLE ARMOR LENGTH	
000	No armor
020	20 feet (6.1 m)
050	50 feet (15 m)
100	100 feet (30 m)

Two remote transducers for large pipes (with "X" pipe size)	
MODEL	DESCRIPTION
DTTN	Standard transducer for 2 1/2" to 20" pipes
DTTH	High temperature transducer for 2 1/2" to 100" pipes
CABLE LENGTH	
020	20 feet (6.1 m)
050	50 feet (15 m)
100	100 feet (30 m)
CABLE ARMOR OPTION	
N	No armor
A	Flexible armor
CABLE ARMOR LENGTH	
000	No armor
020	20 feet (6.1 m)
050	50 feet (15 m)
100	100 feet (30 m)
OPTIONS	
N	Normal area rating

NOTE: Add -C suffix to transmitter model number for factory-configured transmitter and fill out the application data sheet located on Kele's website. The UltraLink software is required to reset the DTFXL totalizer and to field configure, monitor, and diagnose the DTFXL. The PC cable is required to connect a PC to the DTFXL and the software is available on CD or free from www.dynasonics.com.

RELATED PRODUCTS

D002-2007-001

Two Additional 36" stainless straps for DTTN/H transducers (two straps included standard with remote transducers)

D002-2011-001

Lubricant 5.3 oz (included with transducers)

D005-0803-104

UltraLink software CD

D005-2116-004

USB to DB-9 Serial Communications Cable

D010-0204-001

PC to transmitter cable (required for field configuration)

D010-2102-010

Mounting track assembly for DTTN/DTTH transducers, for <10" pipes

DCP-1.5-W

Power supply, 24 VAC IN to 24 VDC OUT

DCPA-1.2

Power supply, 120 VAC IN to 24 VAC/24 VDC OUT