

THERMAL INSERTION MASS FLOW METER EXPLOSION PROOF TDF SERIES

Flow Rate & Totalizer LCD Display
Wide Turndown Ratio of 100:1
Full Range Temperature Compensate

TDF Series is assembled with a thermal dispersion sensor. The sensors use three ratio: temperature detector, reference sensor, compensation sensor through a Wheatstone Bridge to provide a output signal 4~20mA, for measuring temperature when the sensor is immersed into process gases.

Style Types

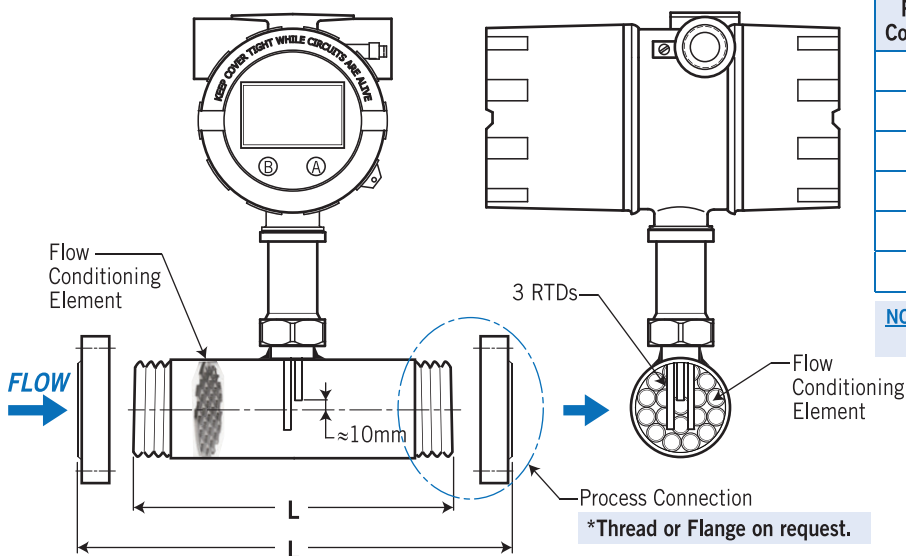
- **TDF-IN: Insertion Style**
 - Application for the large diameter, duct and chimney.
 - Measuring the flow in pipe or air channel which inner diameter bigger than 2".
 - Pipe/Line size compatibility is from 2" to 60"; bigger than 60" is on request.
 - Measuring Range: 0.6 M/S to 60 M/S
 - Calibrated in mass flow range or mass flow rate.
 - Thread and Flange type available
- **TDF-CP: Combine Pipe Style**
 - Application for the measuring pipe, and the pipe size is from 1/2" to 2".
 - Measuring Range: Air / 0.6 SCFM (1 NCMH) ~ 410 SCFM (700 NCMH).
 - Calibrated in mass flow range.

Technical Data

Function Type: Flow Rate with Totalizer LCD Display & Blue Back Lighted
Enclosure Material: Aluminum or SS316 available
Wetted Parts Material: 316 stainless steel
LCD Display: Totalizer 10 digital (top); Flow rate 8 digital (bottom)
Output Signal: 0-5 VDC Linear min. load 1000Ω or 4-20mA Linear, loop resistance 500Ω
Input Power: 24VDC or 110/220VAC
Process Connection: **TDF-IN:** 3/4"NPT, BSP male thread; or flange 1"~3" JIS, ANSI, DIN and clamp available
TDF-CP: 1/2"~2" NPT, BSP male thread; or flange type available
Conduit Connection: 1/2" or 3/4"NPT female, or M20 x P1.5 (with adaptor); others option available
Detection Length: Standard 1 3/4"; and option 2"~60"
Working Temperature: 0~80°C
Working Pressure: maximum 40 kg/cm²
Housing: IP68
Explosion Proof: Class I, Groups A, B, C, D; Class II, Groups E, F, G; NEMA 4X
Response Time: 1 second
Accuracy: ±1% of reading +0.5% of full scale
Repeatability: ±0.2% of full scale
Wide Turndown Ratio: 100:1
Unit: Flow unit: Kg, GAL, Nℓ, Nm³, cc, ℓ, M³; Time unit: Day, Hr, Min, Sec

Dimensions

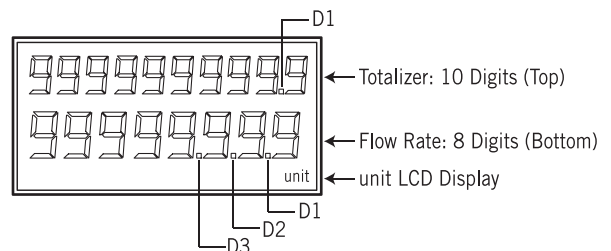
Model: TDF-CP (Combine Pipe Type)



Approvals:



Display Digital Decimal Point Function Flow Rate with Totalizer LCD Display :



Insertion Length / Flow Rate

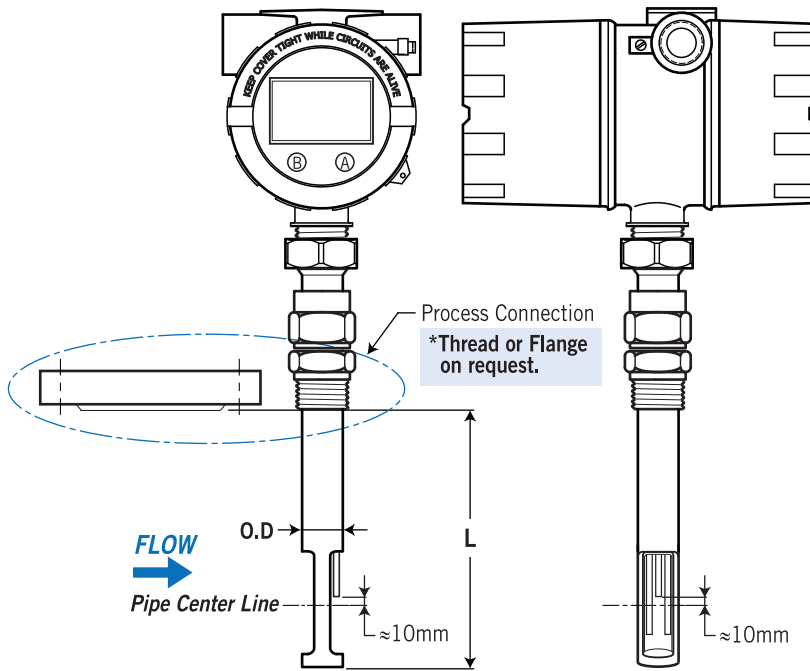
Process Connection	Connection Type	" L " Length	Max. Flow Rate
1/2"	NPT / BSP or Flange Type Available	7"	350 NLPM
3/4"		7"	1,500 NLPM
1"		8"	2,500 NLPM
1 1/4"		10"	4,000 NLPM
1 1/2"		10"	5,000 NLPM
2"		13"	11,500 NLPM

NOTE: L is standard length.
Other L length please consult with the factory.

unit=mm

Dimensions

Model: TDF-IN (Insertion Type)



Insertion Length / Flow Rate

" O.D "	Length " L "	Max. Flow Rate	Pipe Size
ø20mm	Standard 1 3/4", option 2"-60"	600 Nm ³ /Hr	2"
		800 Nm ³ /Hr	2 1/2"
		1200 Nm ³ /Hr	3"
		2000 Nm ³ /Hr	4"

*Other pipe size is on request.

unit=mm

Ordering Information

TDF	Code	Style Types
	IN	Insertion Style
		CP Combine Pipe Style
		Code Process Connection Type
		(1) Thread Type (2) Flange Type (3) Clamp Type (4) Coupling Type
		Code Connection Size
		For TDF-IN: (A) 3/4" (thread only) (B) 1" (C) 1 1/2" (D) 2" (E) 3" (O) Option
		For TDF-CP: (F) 1/2" (G) 3/4" (H) 1" (I) 1 1/4" (J) 1 1/2" (K) 2"
		Code Connection Rating
		Thread Type: (1) NPT, male (2) BSP, male Flange Type: (3) JIS 10K (4) JIS 20K (5) ANSI 150# (6) ANSI 300# (7) PN10 (8) PN16 (9) PN25 (O) Option: please fill in the requested rating _____
		Code Electronic Connection
		(E) 3/4" NPT Female, Standard (F) 1/2" NPT Female (G) M20xP1.5 (O) Option
		Code Flow Range
		Please fill in the requested flow range directly, ie: 4,000 NLPM. (Please refer to the table of Insertion Length / Flow Rate.)
		Code Length of L
	I	(for TDF-IN) Please fill in the requested length directly, ie: L=14".
	C	(for TDF-CP) Please fill in the standard length, ie: L=7".
		Code Output Signal
		(1) 4~20 mA
		Code Input Power
		(A) 110VAC (B) 220VAC (C) 24VDC
		Code Housing Material / Explosion Proof
	A	Aluminum alloy / (Ex. Certificate on Housing Only) Class I, Groups A, B, C & D; Class II, Groups E, F & G; NEMA 4X
TDF		Complete Ordering Code