

DFT COMPACT PADDLE FLOW SENSOR



Flow
Pressure
Level
Temperature
Measurement
Monitoring
Control



- Measuring Ranges:
0.02...0.14 to 0.5...12 GPM
- PTFE or Brass Bodies
- Pulse Output Standard
- Optional Analog Outputs, Digital Displays, Totalizer and Batch Controllers
- No Straight Run Requirements
- Can Be Mounted in Any Orientation
- Compact, Economical Design



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<http://www.instrumentation2000.com>

Model
DFT



Rotating Vane Flowmeter, Totalizer, Batcher Model DFT

Description

The DFT compact series of paddle flow sensors embodies the same rugged reliability of the workhorse DF series in a compact, more economical design. The DFT uses an inlet nozzle to re-direct flow onto the paddle thus there are no straight piping requirements as with many other paddle type designs. The DFT series is available in two material combinations to handle a wide variety of liquids. The nickel plated brass version handles water, light chemicals and low viscosity liquids (<10 cSt), while the PTFE version will stand up to aggressive chemicals. An open collector frequency output is standard with optional analog & controller outputs which offer an LCD displays, analog flow transmitters, programmable relays and totalizer & batch controller options.

Key Features

- Flow Ranges From 0.02...0.14 GPM to 0.5...12 GPM
- PTFE or Brass Bodies
- Pulse Flow Signal Standard
- Optional Digital Display Transmitters/Switches/Controllers
- No Straight Run Requirements
- Can Be Mounted in Any Orientation
- Compact, Economical Design

Specifications

Flow Range:	0.02...0.14 GPM to 0.5...12 GPM
Accuracy:	±2.5% of full scale
Media:	Water and other low viscosity liquids
Maximum Pressure	
Brass Body:	230 PSIG
PTFE Body:	70 PSIG
Temperature Range:	-4 to 176°F
Wetted Materials	
Brass Body:	Nickel-plated Brass, POM, NBR, Ceramic or Sapphire
PTFE Body:	PTFE, Ceramic or Sapphire



Electrical Data

Pulse Output - Standard OEM

Output Type:	NPN open collector
Frequency Range:	0-100 Hz approx.
Power Supply:	5-24 V _{DC} , 15 mA Max. sink current

Electrical Connection:	DIN 43650 Plug, PG 11
Electrical Protection:	NEMA 4X/IP 65

Pulse Output - F400

Output Type:	PNP open collector
Frequency Range:	0-100 Hz approx.
Power Supply:	24 V _{DC} ±20%, max. 20mA
Electrical Connection:	DIN 43650 Plug, PG 11
Electrical Protection:	NEMA 4X/IP 65



Electrical Data

Analog Output - L443 & L442

Power Supply:	24 V _{DC} ±20%
Output:	4-20 mA 3-wire or 2-wire
Max Load:	500 Ohms
Electrical Connection:	DIN 43650 Plug, PG 11
Electrical Protection:	NEMA 4X/IP 65

Analog Output - MA Electronic

Power Supply:	24 V _{DC} , +15% / -10% 110 V _{AC} , ±20%
Output:	4-20 mA or 0-10 V _{DC}
Max Load:	500 Ohms
Electrical Connection:	1.5 m cable connection or connector
Electrical Protection:	NEMA 4X/IP 65

Switching Output - WM Electronic

Power Supply:	24 V _{DC} , +15% / -10% 110 V _{AC} , ±20%
Output:	SPDT Contact max. 250V / 5A
Contact Resistance:	< 100 mOhms
Electrical Connection:	1.5 m cable connection or connector
Electrical Protection:	NEMA 4X/IP 65

Digital Rate Display - K Electronic

Display:	LCD, 8-digit backlit Rate, Unit of measure selectable
Power Supply:	24 V _{DC} , +15% / -10%
Analog Output:	4-20 mA or 0-10 V _{DC}
Max Load:	500 Ohms
Switching Output:	min. and max. SPDT contact max. 24 V / 2A
Hysteresis:	2.5% of measured value
Electrical Connection:	1.5 m cable connection
Electrical Protection:	NEMA 4X/IP 65

Totalizer Display - E Electronic

Display:	LCD, 2-line, 8-digit backlit Rate, Total, & Grand Total Unit of measure selectable
Analog Output:	4-20mA Load: 0...500 Ohms or 0...10 V _{DC} Load: > 100k Ohms
Relay Outputs:	2, max. 30V / 1.5A
Functions:	Reset, MIN/MAX-memory, flow rate switch-point, total & grand total switch-point, language
Power Supply:	24 V _{DC} ±20% Max. sink current
Electrical Connection:	10-pin cable or 2x M12 (5,8 pin)
Electrical Protection:	NEMA 4X/IP 65

Batching Display - G Electronic

Display:	LCD, 2-line, 8-digit backlit Rate, Total, & Grand Total Unit of measure selectable
Analog Output:	4-20mA Load: 0...500 Ohms or 0...10 V _{DC} Load: > 100k Ohms
Relay Outputs:	2, max. 30V / 1.5A
Functions:	Batch (relay 2), start, stop, reset, fine batch, correction quantity, flow rate switch, flow total switch, language
Power Supply:	24 V _{DC} ±20% Max. sink current
Electrical Connection:	10-pin cable or 2x M12 (5,8 pin)
Electrical Protection:	NEMA 4X/IP 65



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Order Details (Example: DFT-D3306 B L443)

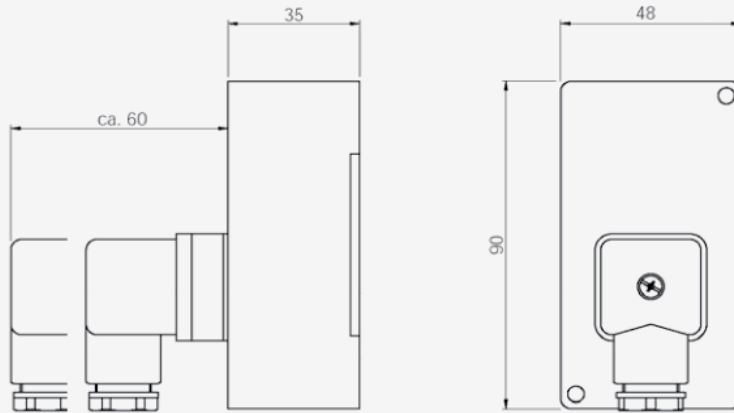
Range Water [GPM]	Standard Fitting [NPT]	Body/Axle Material				Larger Fittings Suffix "B"
		Brass/Ceramic	Brass/Sapphire	PTFE/Ceramic	PTFE/Sapphire	
0.02 - 0.14	1/4"	DFT-D3301	DFT-D3601	DFT-D3501	DFT-D3801	1/2"
0.05 - 0.30	1/4"	DFT-D3302	DFT-D3602	DFT-D3502	DFT-D3802	1/2"
0.05 - 0.60	1/4"	DFT-D3303	DFT-D3603	DFT-D3503	DFT-D3803	1/2"
0.1 - 0.7	1/4"	DFT-D3304	DFT-D3604	DFT-D3504	DFT-D3804	1/2"
0.2 - 2.5	1/2"	DFT-D3305	DFT-D3605	DFT-D3505	DFT-D3805	3/4"
0.4 - 5	1/2"	DFT-D3306	DFT-D3606	DFT-D3506	DFT-D3806	3/4"
0.5 - 6	3/4"	DFT-D3307	DFT-D3607	DFT-D3507	DFT-D3807	-
0.5 - 12	3/4"	DFT-D3308	DFT-D3608	DFT-D3508	DFT-D3808	-

Output/Electronic Option		
OEM Frequency Output ...0000 = NPN, connector DIN 43650		
Frequency Output ...F400 = PNP, connector DIN 43650		
Analog Output ...L443 = connector DIN 43650, 4-20 mA, 3-wire ...L442 = connector DIN 43650, 4-20 mA, 2-wire		
MA Electronic with Analog Output Option		
..MK.. = 1.5 m cable connection ..MG.. = connector and mating connector	..1.. = 110 VAC ..3.. = 24 VDC	..4 = 4-20 mA ..1 = 0-10 V
WM electronic with 1 contact		
..WK.. = 1.5 m cable connection ..WG.. = connector and mating connector	..1 = 110 VAC ..3 = 24 VDC	
K electronic (display, MIN/MAX-contact, analog output)		
..KK.. = 1.5 m cable connection	..3.. = 24 VDC	..4 = 4-20 mA ..1 = 0-10 V
Totalizer Electronic/Batching Electronic		
..E.. = Totalizer Electronic (2 x SPDT) ..G.. = Batching Electronic (2 x SPDT)	..3.. = plug 2x M12 / 24 VDC ..1.. = 1.5 m cable / 24 VDC	..4R = 4-20 mA ..1R = 0-10 V
Accessories: P/N 807.007 = 4-pin Micro-DC connector with 6-foot cable for output types E34R & G34R P/N 807.087 = 8-pin Micro-DC connector with 6-foot cable for output types E34R & G34R		

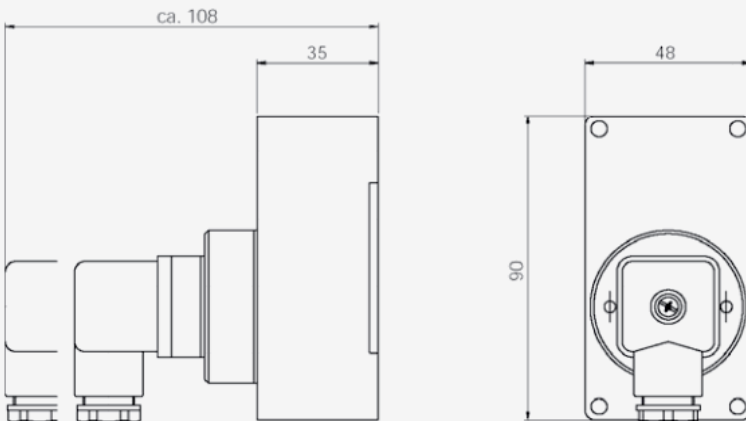
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Dimensions Brass

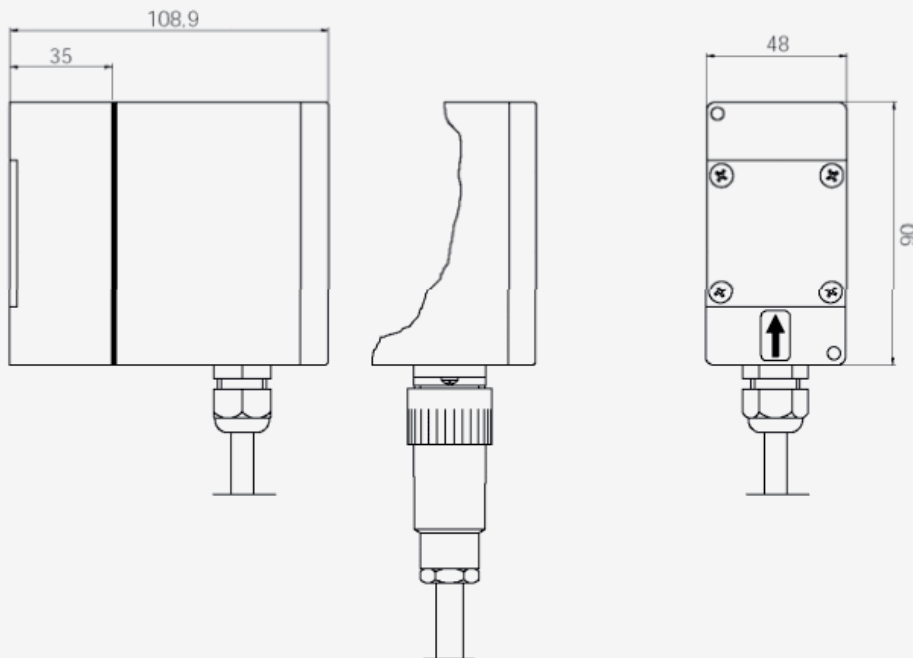
DFT-...0000



DFT-...F4.../DFT-...L4...



DFT with MA/WM/K/E/G Electronics



Dimensions in mm

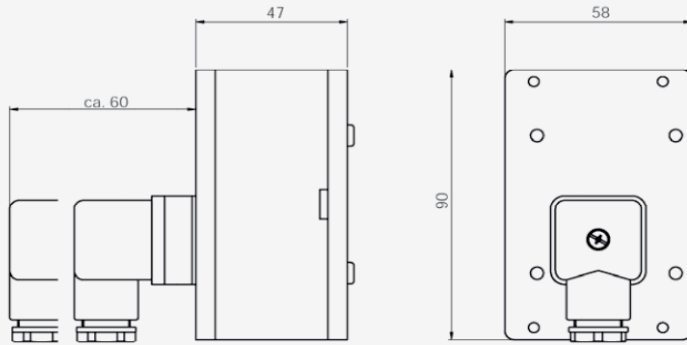
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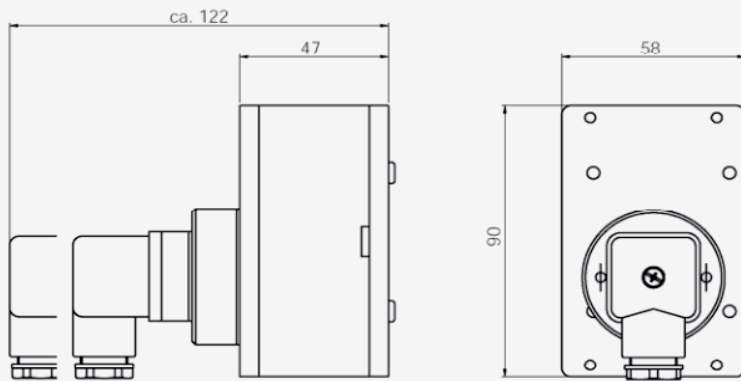
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Dimensions PTFE

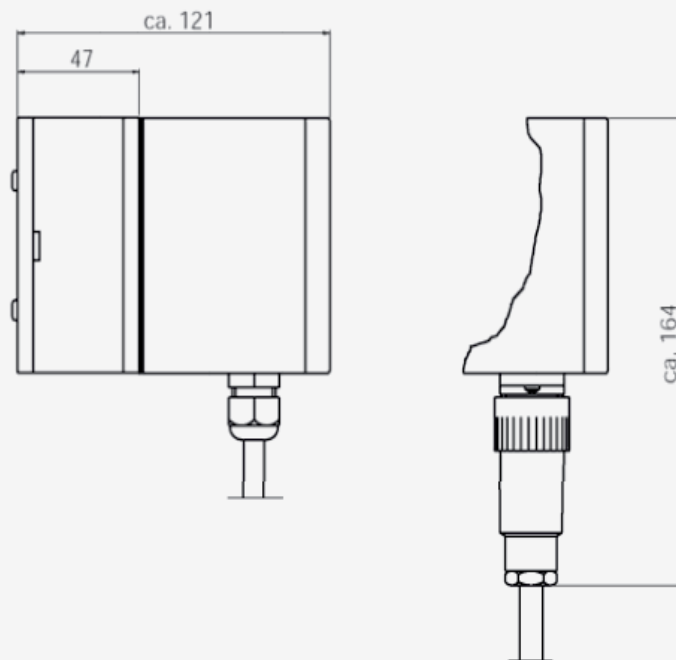
DFT-...0000



DFT-...F4.../DFT-...L4...



DFT with MA/WM/K/E/G Electronics



Dimensions in mm