

Type F3.30 and ULF3.30 Blind Transmitters

The Type F3.30 and ULF3.30 are 3-wire flow transmitters with a 4 to 20 mA analog output. For applications not requiring visual flow indication, they are an economical alternative to an F9.00 instrument/sensor direct mount assembly.

■ Type F3.30

Body Materials: CPVC, PVDF, 316L Stainless Steel, Brass

Rotor: ECTFE (Halar®)

Shaft & Bearings: Ceramic

Seals: EPDM, Viton®

Pipe Sizes: 1/2"– 24" in two sensor lengths, L0 or L1
See Installation Fittings (pages 38–41)

Flow Ranges: See page 44

■ Type ULF3.30

	Polyoxymethylene Version (POM)	ECTFE Version
Sensor Body:	POM	ECTFE (Halar®)
Rotor:	POM	ECTFE (Halar®)
Shaft:	Corepoint®†	Sapphire
Bearings:	–	Sapphire
O-Ring:	Viton®	Viton® or Kalrez®
Connection:	Inline 1/4" BSP male threaded	
Flow Range:		
ULF01 Model:	1.5 to 100 l/h (0.0066 to 0.44 gpm)	
ULF03 Model:	6 to 250 l/h (0.0264 to 1.10 gpm)	

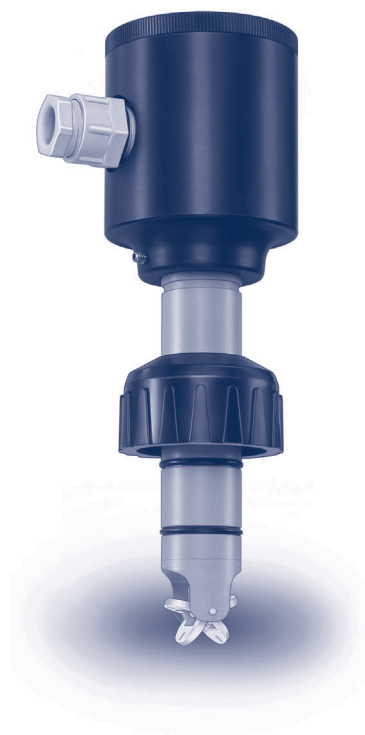
† Corepoint® is a steel alloy.

■ Features

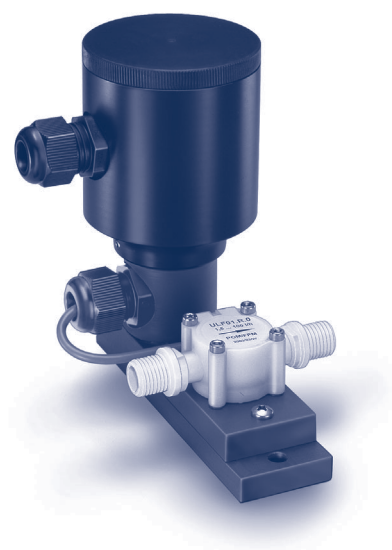
- **Large Selection of Sensor Materials** – Including stainless steel and brass.
- **Corrosion Resistant PVC Electronics Housing**
- **Ceramic Shaft and Bearings** – Provide long life on services containing grit
- **Self Cleaning Design** – Lower maintenance

Digiflow®
FLOW X3

F3.30



ULF3.30



Type F3.30 and ULF3.30 Blind Transmitters



■ Technical – General

Supply Voltage: 12 to 24 VDC regulated
 Current Consumption: < 50 mA
 Max. Loop Impedance: 800Ω @ 24 VDC, 300Ω @ 12 VDC
 Enclosure: NEMA 4, 4X (IP65) PVC housing
 Repeatability: ± 0.5% of full scale
 Output: 4 to 20 mA, 3 wire

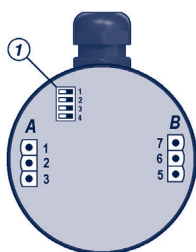
■ Technical – Type F3.30

Accuracy: < ± 1% of reading value after field calibration or ± 0.75% of full scale
 Viscosity Range: 0.5 to 20 centistokes. Factory calibration is required if outside this range, up to 40 centistokes maximum.
 Maximum % Solids: 10% with particle size not exceeding 0.5 mm cross section or length
 Ambient Temperature: 0 to 60°C (32 to 140°F)
 Max. Operating Pressure/Temperature: See chart on page 45

■ Technical – Type ULF3.30

Accuracy: < ± 2% of reading value after field calibration or ± 1% of full scale
 Viscosity Range: 1 to 10 centistokes
 Maximum % Solids: Clean service only, no solids recommended
 Ambient Temperature: 0 to 60°C (32 to 140°F)
 Working Temperature: -10 to 80°C (14 to 176°F)
 Working Pressure: 5 bar (70 psi) max. @ 22°C (72°F)

■ Wiring & Operation (Cable not supplied)



Power Supply **A**

1	+ VDC
2	4-20 mA OUTPUT
3	- VDC

Sensor **B**

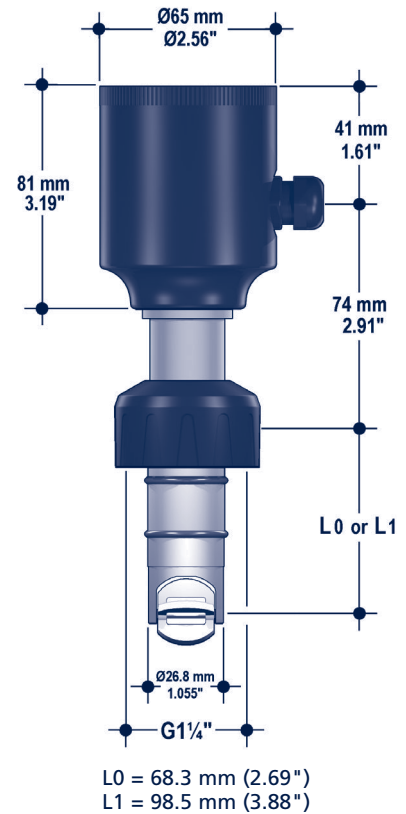
SENSOR	
5	GND
6	IN
7	V+

(See Instruction Manual for detailed wiring information)

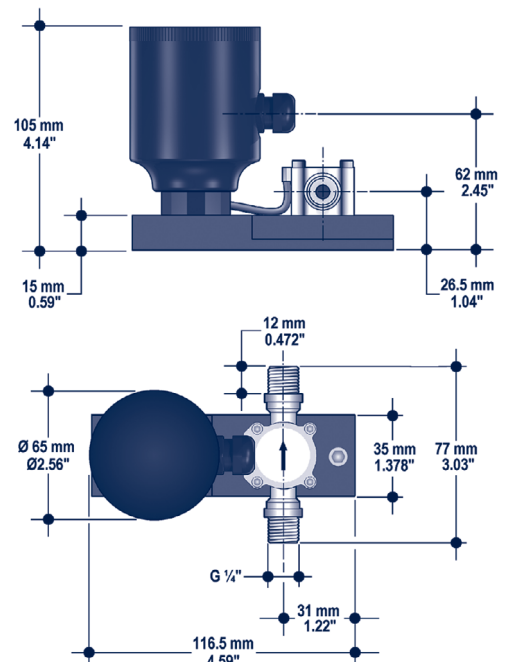
① Calibration Switch

The full scale range, corresponding to 4 to 20 mA output is set by means of switches 2, 3 and 4.
 Switch 1 is used to set a filter on the current output.

F3.30



ULF3.30



■ Item Numbers

• See page 24

Item Numbers

Flow Switches and Blind Transmitters



■ No-Flow Switches See page 19

Type F3.05

Electrical Class	O-Ring	Sensor Length	Item No.		
			CPVC	PVDF	316L SS
NEMA 4, 4X (IP65)	EPDM	L0	F3.05.H.01	F3.05.H.05	F3.05.H.09
	Viton®	L0	F3.05.H.02	F3.05.H.06	F3.05.H.10
	EPDM	L1	F3.05.H.03	F3.05.H.07	F3.05.H.11
	Viton®	L1	F3.05.H.04	F3.05.H.08	F3.05.H.12

■ Adjustable Flow Switches See pages 20 and 21

Type F3.15

Electrical Class	O-Ring	Sensor Length	Item No.			
			CPVC	PVDF	316L SS	Brass
NEMA 4, 4X (IP65)	EPDM	L0	F3.15.H.01	F3.15.H.05	F3.15.H.09	F3.15.H.13
	Viton®	L0	F3.15.H.02	F3.15.H.06	F3.15.H.10	F3.15.H.14
	EPDM	L1	F3.15.H.03	F3.15.H.07	F3.15.H.11	F3.15.H.15
	Viton®	L1	F3.15.H.04	F3.15.H.08	F3.15.H.12	F3.15.H.16

Type ULF3.15

Electrical Class	Flow Trip Point (l/hr)	Item No.		
		POM† / Viton®	ECTFE* / Viton®	ECTFE* / Kalrez®
NEMA 4, 4X (IP65)	1.5 – 21	ULF3.15.01.0	ULF3.15.01.2	ULF3.15.01.3
	6 – 53	ULF3.15.03.0	ULF3.15.03.2	ULF3.15.03.3

■ Flow Transmitters See pages 22 and 23

Type F3.30

Electrical Class	O-Ring	Sensor Length	Item No.			
			CPVC	PVDF	316L SS	Brass
NEMA 4, 4X (IP65)	EPDM	L0	F3.30.H.01	F3.30.H.05	F3.30.H.09	F3.30.H.13
	Viton®	L0	F3.30.H.02	F3.30.H.06	F3.30.H.10	F3.30.H.14
	EPDM	L1	F3.30.H.03	F3.30.H.07	F3.30.H.11	F3.30.H.15
	Viton®	L1	F3.30.H.04	F3.30.H.08	F3.30.H.12	F3.30.H.16

Type ULF3.30

Electrical Class	Flow Range (l/hr)	Item No.		
		POM† / Viton®	ECTFE* / Viton®	ECTFE* / Kalrez®
NEMA 4, 4X (IP65)	1.5 – 100	ULF3.30.01.0	ULF3.30.01.2	ULF3.30.01.3
	6 – 250	ULF3.30.03.0	ULF3.30.03.2	ULF3.30.03.3

† POM = "Polyoxymethylene". * ECTFE is also referred to as "Halar®".