

Differential Pressure Purge Control



788 SERIES

- Generates a constant flow of compressed air to purge a downpipe
- Integral differential pressure transmitter provides 4 mAdc to 20 mAdc output proportional to liquid level
- All-pneumatic design does not include integral transmitter
- Provides 1:1 pressure signal to a compatible indicator or external transducer through 1/4 in. airline tubing
- Holds a fixed pressure differential across a precision orifice to ensure constant flow rate of 1 cfh (cubic foot per hour), making it possible to maintain a linear 1:1 response of the sensing system
- Backpressure sensed is equivalent to the hydrostatic head pressure due to actual liquid depth

APPLICATIONS

- Tank level indication
- Marine
 - Tank level, draft monitoring and vessel management
- Ballast water
- Fuel oil
- Fresh water
- Lube oil
- Brine
- Preload
- Holding

SPECIFICATIONS

Output signal	4 mAdc to 20 mAdc (milliamperes)	
Accuracy	0-5 psid trans./control	± 0.34% full scale
	0-10 psid trans./control	± 0.27% full scale
	0-15 psid trans./control	± 0.24% full scale
	0-30 psid trans./control	± 0.22% full scale
	0-50 psid trans./control	± 0.21% full scale
Repeatability	± 0.20% of calibrated span	
Temperature Range	0 °F to 120 °F / -16 °C to 54 °C	
Maximum pressure	300% over-range	
Burst pressure	200 psig	
Power requirement*	14 Vdc to 40 Vdc	
Compressed air requirement	35 psig to 150 psig supply pressure at control inlet. (Minimum supply pressure should be at least 20 psig greater than anticipated maximum liquid head pressure.)	
Maximum depth measurement	1,937 inH ₂ O (49.0 m)	
DP Purge control	Unit incorporates differential air flow regulator with flow control orifice Fixed differential set to nominal 10 psid Output is 1:1 pneumatic pressure (hydrostatic force equivalent) Includes an integral differential pressure (D/P) transmitter converting pneumatic pressure into 4 mAdc to 20 mAdc electronic output. Ranges available: 0 psid to 5 psid, 0 psid to 10 psid to 30 psid, 0 psid to 50 psid	
Flow rate (air purge)	Nominal 1 cfh (cubic feet per hour) at specified differential Maximum air consumption under 5 cfh.	
Materials	Machined brass body with acrylic semi-gloss enamel finish; integral filter element is aluminum with acrylic semi-gloss enamel finish	

* Unregulated



ORDERING INFORMATION			
SERIES	788		
FITTINGS	198 None, 1/4" NPT	398 Polyflo; (1) 3/8" tube, (1) 1/4" tube	498 Swagelok; (1) 3/8" tube, (1) 1/4" tube (compatible with copper or poly tubing)
DP NOMINAL RANGES	148 0 psi to 2 psi	168 0 psi to 10 psi	188 0 psi to 30 psid
	158 0 psi to 5 psi	178 0 psi to 15 psi	198 0 psi to 50 psi

EXAMPLE

788 - 398 - 178

Series788 Series

FittingPolyflo; (1) 3/8" tube, (1) 1/4" tube

DP Nominal range0 psi to 15 psi

