

Well Flow Management

Pipeline Integrity

Velonix® - Optimized pig control. Every run, every line.

Expro's Velonix system is an advanced PLC operated solution designed to measure, record, and control flow velocity during pipeline pigging operations.

Leveraging state-of-the-art SONAR technology, the Velonix system provides highly reliable velocity measurements, enabling automated closed-loop active flow control valve adjustments. This precise and consistent velocity management enhances operational efficiency and ensures optimal pig velocity conditions are consistently maintained as well as reducing emissions.

The Velonix system can manage normal pipeline flows as a standalone system, or be integrated with other systems to augment or reduce flowrate in addition to control of the flow velocity such as Expro flarestacks or artificial propellants such as nitrogen, compressed air, or liquid pumps.



Velonix Technical Specifications

Parameter	Specification	Comments
Pipeline Diameter Range	2" to 48" NPS	Inquire about other sizes
Pressure Range	0 to 1480 psig 0 to 102 barg	Higher pressure ranges available for custom application
Natural Gas Flowrate Range	1 to 535 MMSCFD 0.28 to 15 MMSM ³ D	Single digital flow skid capacity Parallel configurations available for higher flowrates
Liquid Flowrate Range	1 to 264,000 BPD 1 to 42,000 M ³ D	
Flow Velocity Control Range	0.5 to 50 ft/s 0.15 to 15 m/s	0.35 to 34.1 MPH
Flow Velocity Control Accuracy	+/- 5.0% SD of setpoint	Up to 1.03% SD of setpoint Repeatability of +/- 2.0%

For more information contact your local Expro representative or email Pipeline.services@expro.com

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ActiveSONAR Technical Specifications

Parameter	Specification	Comments
Pipe Diameter Range	2" to 32" NPS	Inquire about other sizes Meter is pipe diameter specific
Velocity Measurement Range	1 to 150 ft/s 0.3 to 50 m/s	
Velocity Measurement Accuracy	+/- 2.0% of reading	Repeatability of +/- 0.3%
Sensor Head	Clamp-mounted onto existing pipe section	Sensor head requires 1 ft (0.3 m) of straight pipe free of fittings or welds
Ambient Temperature	-49 °F to 140 °F -45 °C to 60 °C	
Process Temperature	-49 °F to 212 °F -45 °C to 100 °C	
IP Rating	Transmitter: IP-66 / Type 4X Sensor Head: IP-67	
Hazardous Area Classification	US & Canada: Class 1, Div 2 ATEX: Zone 1 IECEx: EPL Gb	

Control System Technical Specifications

Parameter	Specification	Comments
Ambient Temperature	32 °F to 100 °F 0 °C to 38 °C	
Electrical Requirements	110 to 240 VAC 50/60 Hz	
Electrical Consumption	225 W nominal 500 W peak	
Electrical Battery Backup	UPS Sine Wave	4+ hours
Hazardous Area Classification	None	

Digital Flow Skid Technical Specifications

Parameter	Specification	Comments
Connection Size and Type	2" ANSI 600# RF to 12" ANSI 600# RF	Various sizes available dependant on flow requirements. Parallel configurations available for higher flowrates
Pneumatic Supply	Internal or External	Utilizes process gas flow or external compressed gas source
Pneumatic Requirements	30 to 1480 psig	Compressed Air, Natural Gas, or Nitrogen
Pneumatic Consumption	0.05 to 150 SCFH	Dependant on digital flow skid sizing and flow variability
Ambient Temperature	0 °F to 160 °F -18 °C to 71 °C	
	-20 °F to 250 °F -29 °C to 121 °C	
IP Rating	IP-66 / Type 4X	
Hazardous Area Classification	US & Canada: Class 1, Div 2 ATEX: Zone 1 IECEx: EPL Gb	

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