

Ultrasonic flowmeters for custody transfer measurement

FHsonic



Materials of construction	
Body and Flanges	Carbon Steel or Stainless Steel (Other upon request)
Transducers	Stainless Steel / PEEK
Meter Specification	
Model	Asymmetrical distribution of 5 chords for improved profile correction (up to 10 chords)
media measured	Liquids
Measured values	Transactional volume measurement
Meter Size Flange Rating	DN 100 to DN 600 (4" to 24") (other, upon request) ANSI 150/300/600/900"
Transducers	Removable under operating conditions
Diagnostics	Measurement quality (phase homogeneity, VOS, gas on top, solids on bottom...)
Performance	
Turndown	24:1
Linearity	± 0.15%
Repeatability	5.8 BI API
Compact Prover Compliance	Under conditions
Custody Velocity	0.5 to 12 m/s
Viscosity	0.2 to 500 cSt
Density Range	400 to 1 500 kg/m³
Pressure Drop	Negligible
Electronics	
Power supply	24 Vdc
Inputs	4 -20 mA
Pulse Outputs	2x pulse output channels selectable as either 0-5 V or Open Collector. Each pulse represents a fixed volume function of the configured Kfactor. Duty Cycle: 50/50
Analog Outputs	2x independent and configurable analog outputs (0-20 / 4-20 mA) Analog outputs can be used for: Instantaneous flow rate, Average velocity, Average VOS ... HART (Option)
Digital Outputs	4x independent and configurable digital outputs (0-5 VDC or 0-12 VDC) Digital outputs can be used for: Flow direction, Alarms...
Serial Communication	1x RS 485 1x RS 422 1x Ethernet
Protocol	Modbus TCP, Modbus RTU (RS485)
Meter temperature range	
Ambient temperature	- 45 to + 65 °C (- 49 to + 149 °F)
Process temperature	- 50 to + 115 °C (- 58 to + 239 °F)
Storage temperature	- 50 to + 80 °C (- 58 to + 176 °F)
Meter approvals	
Electrical	ATEX II 2 G (Ex d mb IIB T4)
Protection	IP 66
Pressure	PED Directive 2014/68/EU compliant
Electromagnetic compatibility (EMC)	EMC Directive 2014/30/EU compliant
Metrology	OIML R117-1 MID (Class 0.3) H3/M2/E2
NEC Certification	Compatibility Class 1, Zone 1, Group IIB