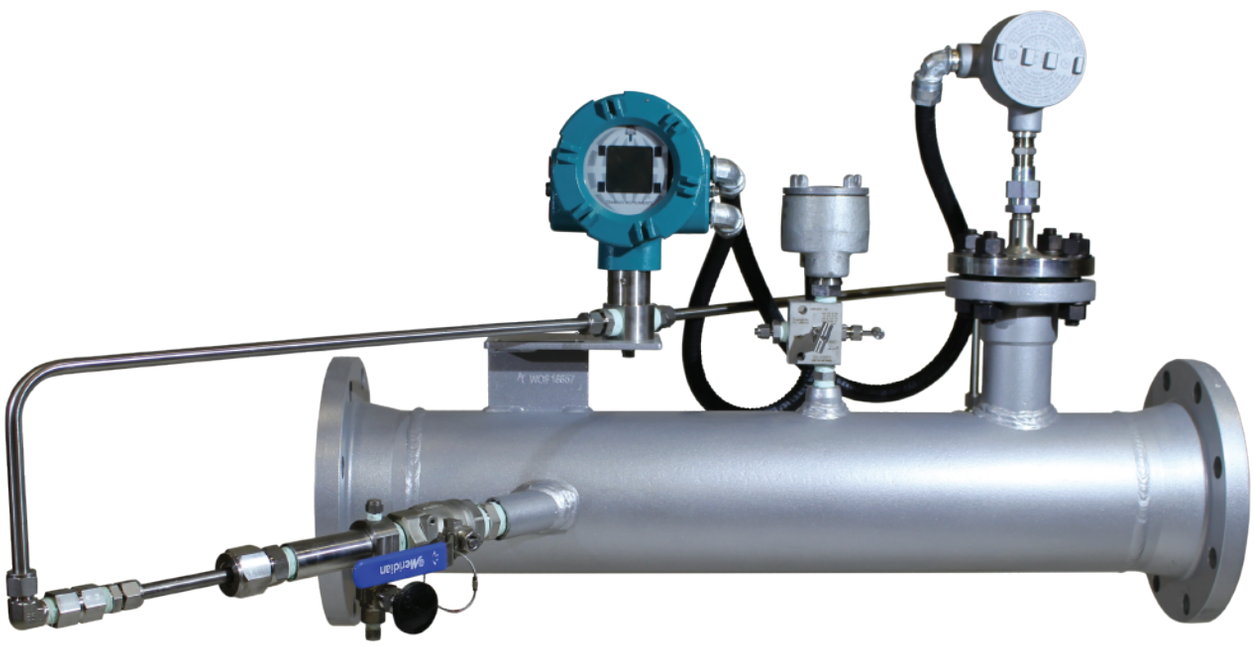
TRANSUS INSTRUMENTS



Technical Datasheet

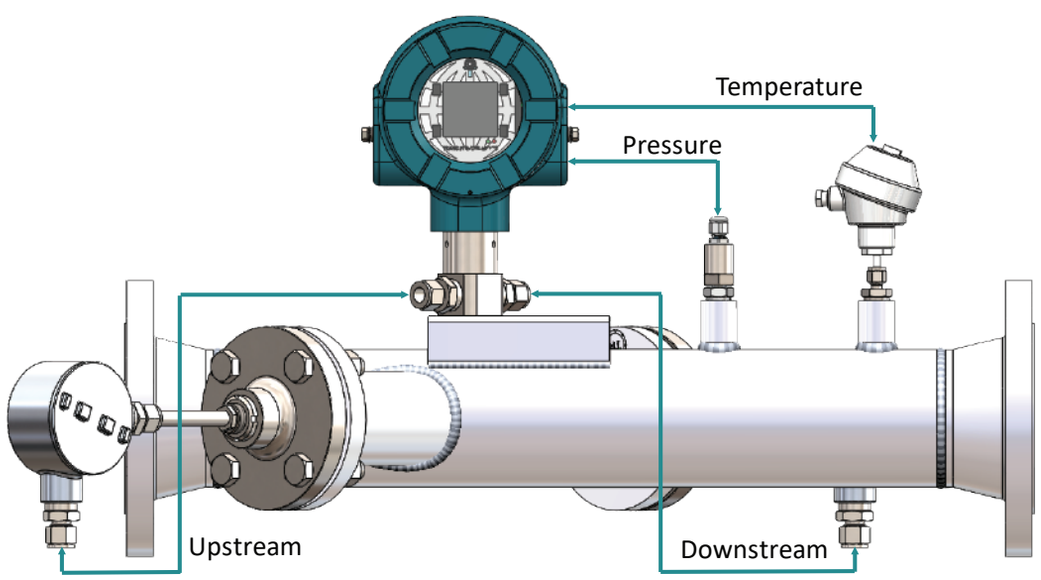
UIM-1 / UIM-2

Metric

UIM Series Flowmeter

Technical Data

Features	
Typical applications	Flare Gas, Vent Gas, Fuel Gas, Process Gas, Bio Gas
Measurement parameters	Velocity measurement Actual volumetric flowrate Standard or Normal volumetric flowrate Mass flow calculation Molecular weight calculation Suitable for varying gas composition High turndown ratio Custom design options
Configurations	Single or Dual direct path orientation
Orientation	Horizontal or vertical
Path layout	Diameter or Top mount 90° for large pipes



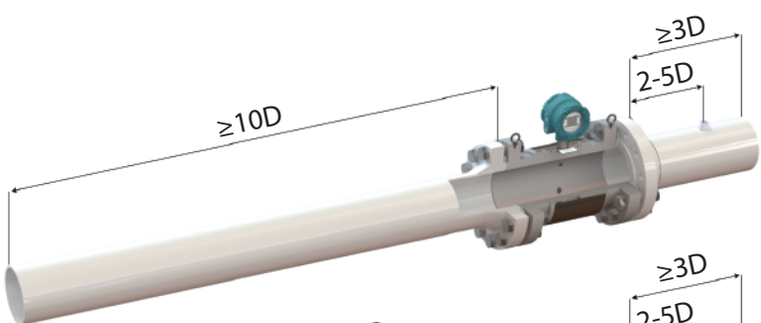
General Specifications	
Principle of operation	Broadband continuous wave – transit time
Sizes	150, 300lbs 2 – 96" 600, 900lbs; 2 – 30"
Flange type	ANSI, DIN, others on request
Pressure ranges	Up to 153 bar (2248 psi)
Ambient temperature	-40 to +60°C (-40 to +140°F)
Process temperature	UIM-U3, U2, U5 transducers -30 to +80°C (-22 to +176°F) TI55 transducers -40 to +120°C (-40 to +248°F)
Accuracy	UIM-1 2% (>3 m/sec) 3% (0.1 – 3 m/sec) UIM-2 1.5% (>3 m/sec) 2% (0.1 – 3 m/sec) *Consult Transus Instruments for typical flow calibrated accuracy
Flow range	0.1 – 65 m/sec
Repeatability	0.2%
Turndown	650:1 (pipe size and application dependent)
Meter body materials	Carbon steel ASTM A350-LF2 Cl.1 Stainless steel ASTM A182-F316 Other materials on request
Material certification	EN 10204 3.1 (additional certifications upon request)
Transducer retraction	Optional – Consult Transus Instruments
Pressure port / sensor	¼" or ½" NPT female Optionally fitted with absolute pressure sensor. Consult Transus Instruments for valve manifold options
Temperature port / sensor	½" or ¾" NPT female Optionally fitted with PT100 4-wire temperature sensor Consult Transus Instruments for thermowell options

Flowranges and configurations

Dimensions and weights

Electronics Specifications	
Electronic enclosure material	**Epoxy painted, low copper aluminum alloy**
Electronic enclosure cable entry	M20x1.5 female 1/2" NPT female
Power supply	Main power: 12 – 28VDC, 670mW max I/O option board power: 12 – 28VDC, 225mW max
User interface	128x128 dot matrix LC Display, 4 keys
Interface ports	1x USB (not intrinsically safe) 1x HF Frequency output
Optional interface ports	I/O Option Board 1x RS485, two wire, externally powered 2x Digital, software configurable (HF, LF, Status) 1 x 4-20mA loop powered output (pending) PT Option Board Pressure and temperature sensors 4-20mA Option Board 1 x 4-20mA loop powered output
Communication protocols	MODBUS (RS485 and USB)
Hazardous area certification	ATEX EX II 1 G Ex ia IIC T4 Ga, Zone 0 IECEx Ex ia IIC T4 Ga
Ingress Protection	IP66, NEMA 4X

1.



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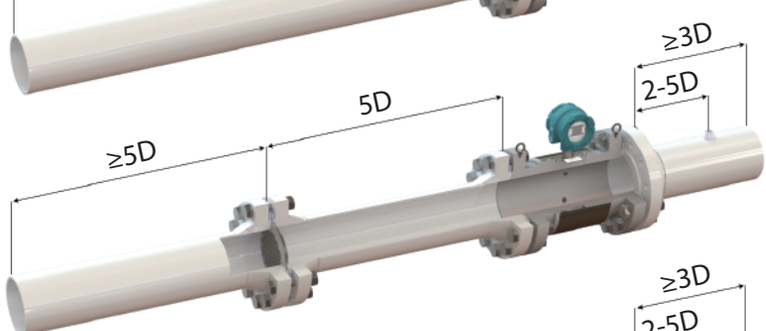

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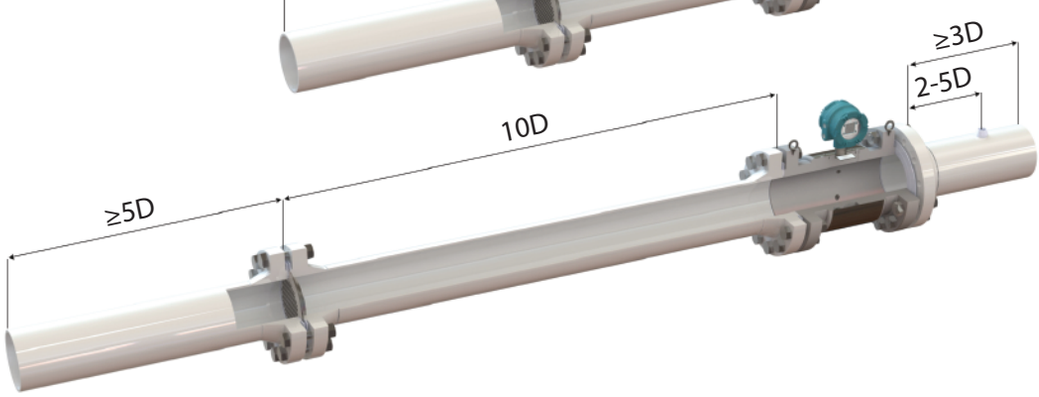

Configuration 1. – Recommended configuration without flow conditioner
Configuration 2. – Recommended configuration with flow conditioner
Configuration 3. – Conservative configuration with flow conditioner