

Technical Datasheet

UIM-3/3F

UIM Series Flowmeter

Technical data

Principle of operation	Broadband continuous wave- transit time
Sizes	150, 300 and 600lbs;2 - 16", other sizes on request
Flang type	ANSI, DIN, others on request
Pressure ranges	Up to 102 bar (1480 psi), other ranges on request
Ambient temperature	-40 to +60°C (-40 to +140°F)
Process temperature	-30 to +80°C (-22 to +176°F)
Typical uncertainty	1% (Qt - Qmax) factory calibration 2% (Qmin - Qt) factory calibration 0.5% (Qt-Qmax) flow calibration 1% (Qmin-Qt) flow calibration
Metrology	UIM-3F:AGA-9 compliant
Repeatability	0.1%
Turndown	100:1 (pipe size dependent)
Meter body materials	Carbon steel ASTM A350-LF2 Cl.1 Stainless steel ASTM A182-F316 Other materials on request
Transducers	All metal Ti C-grade 2; retractable version available as option
Pressure port	1/4" NPT female, others on request
Electronic enclosure material	Epoxy painted, low copper aluminum alloy
Electronic enclosure cable entry	M20x1.5 female 1/2" NPT female
Power supply	Main power: 14-28.8V, 6 OmW max I/O option board power 10.8 - 28.8V, 225mW max

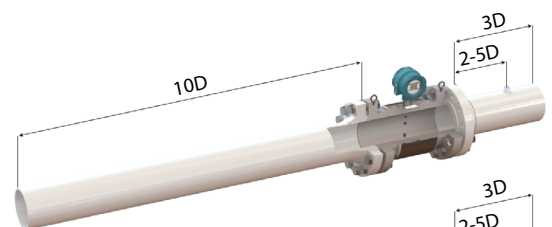
User interface	128x128 dot matrix LC Display, 4 keys
Interface ports	1x USB (not intrinsically safe) 1x Frequency output
Optional interface ports	<u>I/O Option board</u> 1x RS485, two wire, externally powered 2x Digital, software configurable 1x 4-20mA loop powered output (pending) <u>PT Option board</u> Pressure and temperature sensors <u>4-20mA/HART Option board</u> 1x 4-20mA loop powered output (HART pending)
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 FM-Class I, Division 1, Group A,B,C,D T4 (PENDING)
Ingress Protection	IP66, NEMA 4x

Flowranges and configurations

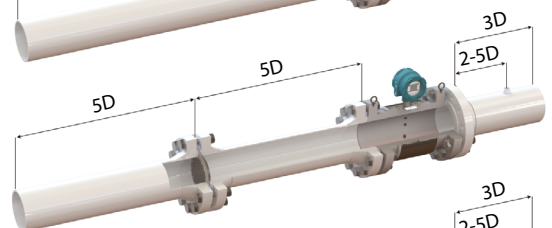
Flowranges (US Imperial)	Nominal size (inch)	Schedule	Internal diameter (inch)	Flow (CFH)			Turndown	
				Q _{max}	Q _t	Q _{min}		
	2	40	80	2,067 1,939	11.010	1.101	130	85
					9.690	969	110	89
	3	40	80	3,068 2,900	21.230	2.123	250	85
					18.970	1.897	220	87
	4	40	80	4,026 3,826	34.980	3.498	420	84
					31.600	3.160	380	84
	6	40	80	6,065 5,761	71.090	7.109	720	99
					64.150	6.415	650	99
8	40	80	7,981 7,625	123.100	12.310	1.240	100	
				112.370	11.237	1.130	100	
10	40	80	10,020 9,562	194.100	19.410	1.950	100	
				176.700	17.670	1.770	100	
12	STD	80	11,938 11,376	278.200	27.820	2.790	100	
				250.200	25.020	2.510	100	
14	STD	80	13,126 12,500	339.200	33.920	3.400	100	
				302.000	30.200	3.020	100	
16	STD	80	15,000 14,314	449.500	44.950	4.500	100	
				395.900	39.590	3.960	100	

* Actual flowrange may vary depending on application

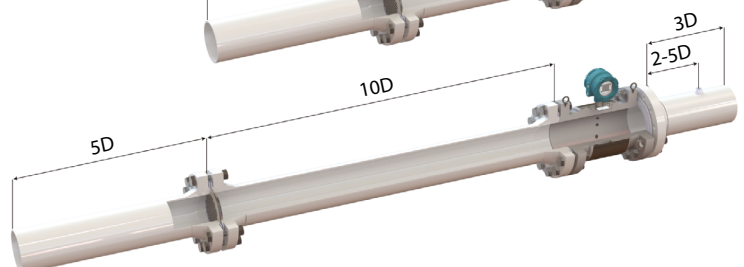
Configuration 1.
Recommended configuration without flow conditioner



Configuration 2.
Recommended configuration with flow conditioner

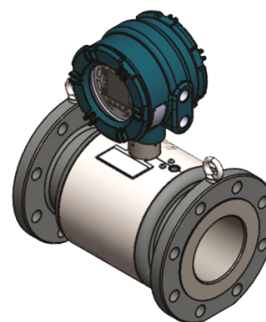
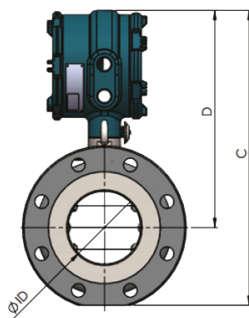
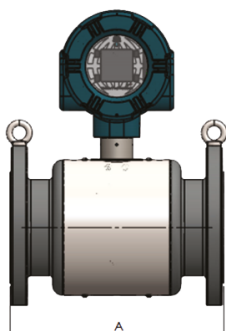
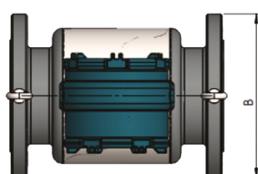


Configuration 3.
Conservative configuration with flow conditioner



Dimensions and weights

Dimensions and weights (US Imperial)	Nominal size	Rating	A- Length (IN)	B- Width (IN)	C - Height (IN)	Weight (lb)
	2	150	10,2	6,1	13,4	55
		300	10,2	6,5	13,6	60
		600	11,0	6,5	14,2	66
	3	150	11,8	7,5	14,6	77
		300	11,8	8,3	15,0	79
		600	12,6	8,3	15,7	97
	4	150	11,8	9,1	16,1	95
		300	11,8	10,0	16,6	110
		600	13,8	10,8	17,6	172
6	150	13,8	11,0	18,0	126	
	300	15,7	12,6	18,8	212	
	600	15,7	14,0	20,1	271	
8	150	17,7	13,6	20,3	320	
	300	19,7	15,0	20,9	386	
	600	19,7	16,5	22,4	434	
10	300	21,7	17,5	24,0	540	
	600	21,7	20,1	25,2	668	
12	300	23,6	20,5	26,6	628	
	600	23,6	22,0	27,4	829	
14	300	23,6	23,0	27,8	893	
	600	23,6	23,8	28,7	959	
16	300	27,6	25,6	29,7	1367	
	600	27,6	27,2	30,5	1455	



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