


Technical Datasheet

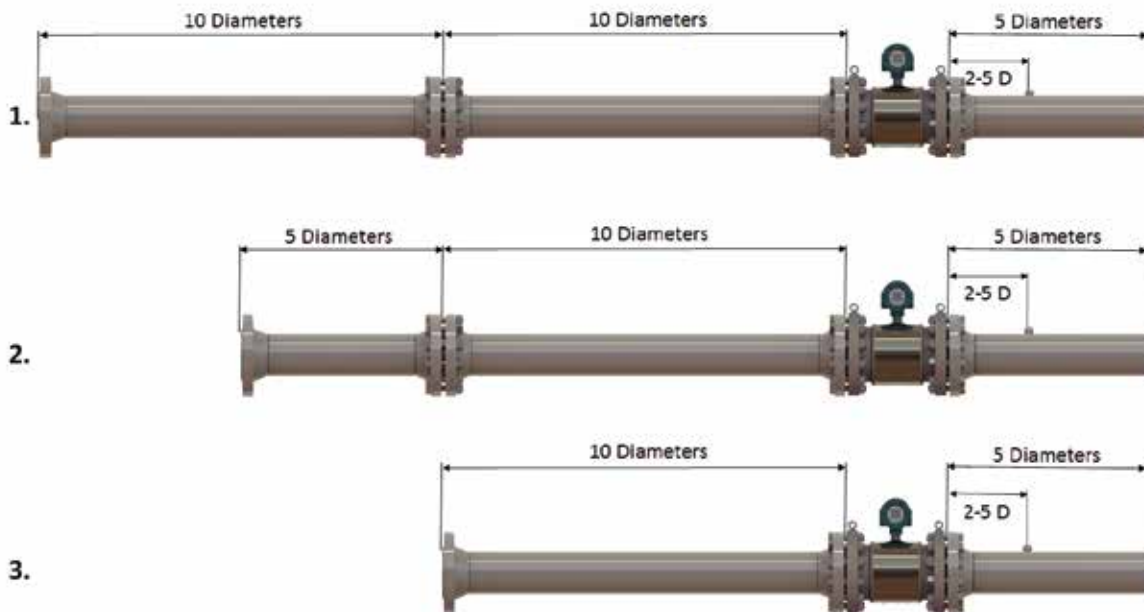
UIM-3/3F

UIM Series Flowmeter

Principle of operation	Broadband continuous wave – transit time
Sizes	150, 300 and 600lbs; 2 – 16”, other sizes on request
Flange type	ANSI, DIN, others on request
Pressure ranges	Up to 102 bar (1480 psi), other ranges on request
Ambient temperature	-40°F to + 140°F (-40 to + 60 °C)
Process temperature	-22°F to + 176°F (-30 to + 80 °C)
Typical uncertainty	1% ($Q_t - Q_{max}$) factory calibration 2% ($Q_{min} - Q_t$) factory calibration 0.5% ($Q_t - Q_{max}$) flow calibration 1% ($Q_{min} - Q_t$) 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 Titanium, retractable version available as option
Pressure port	¼” NPT female, others on request
Electronic enclosure material	Epoxy painted, low copper aluminum alloy
Electronic enclosure cable entry	M20x1.5 female ½” NPT female
Power supply	Main power: 14 - 28.8V, 670mW 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 (HF, LF, status) 1 x 4-20mA loop powered output (pending) <u>PT Option board</u> Pressure and temperature sensors <u>4-20mA/HART Option Board</u> 1 x 4-20mA loop powered output (HART pending)
Communication protocols	MODBUS (RS485 and USB)
Hazardous area certification	ATEX  II 1 G Ex ia IIC T4 Ga, Zone 0 IECEX Ex ia IIC T4 Ga CSA/FM Class I, Division 1, Group A,B,C,D T4
Ingress Protection	IP66, NEMA 4X

Flowranges U.S. units	Nominal Size [inch]	Schedule	Internal diameter [inch]	Flow [CFH]			Turndown
				Qmax	Qt	Qmin	
	2	40		2.067	11,010	1,101	130
80			1.939	9,690	969	110	89
3	40		3.068	21,230	2,123	250	85
	80		2.900	18,970	1,897	220	87
4	40		4.026	34,980	3,498	420	84
	80		3.826	31,600	3,160	380	84
6	40		6.065	71,090	7,109	720	99
	80		5.761	64,150	6,415	650	99
8	40		7.981	123,100	12,310	1,240	100
	80		7.625	112,370	11,237	1,130	100
10	40		10.020	194,100	19,410	1,950	100
	80		9.376	169,900	16,990	1,700	100
12	STD		11.938	278,200	27,820	2,790	100
	80		11.376	250,200	25,020	2,510	100
14	STD		13.126	339,200	33,920	3,400	100
	80		12.500	302,000	30,200	3,020	100
16	STD		15.000	449,500	44,950	4,500	100
	80		14.314	395,900	39,590	3,960	100

* Actual flowrange may vary depending on application



Configuration 1. – Conservative configuration with flow conditioner

Configuration 2. – Recommended configuration with flow conditioner

Configuration 3. – Recommended configuration without flow conditioner

Dimensions and weights

Dimensions and weights - U.S. units	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	15.7	13.6	20.3	190	
	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	24.2	893	
	600	23.6	23.8	24.6	915	
16	300	27.6	25.6	27.2	1367	
	600	27.6	27.2	28.0	1455	

