TrueShot
ULTRASONIC METERS

Transus Instruments

UIM-3/3F

For Industrial Metering

Custody Transfer Accuracy at Economical Cost

Patented Broadband Continuous Wave Technology

APPLICATIONS

- Allocation Metering
- LDC Gate Stations
- Shale Gas
- Flare Gas
- Coal Seam Gas
- Biogas
- Landfill Gas

TMCO THE MEASUREMENT COMPANY

www.tmcousa.com | support@tmcousa.com | 713.465.3255

UIM SERIES: UIM-3/3F

FEATURES

- Highly accurate three path ultrasonic flowmeter, available in custody transfer (UIM-3F) and non-fiscal (UIM-3) versions. AGA-9 compliant (UIM-3F).
- Available in sizes from 2" to 30" and flange ratings up to 150, 300 and 600#.
- Patented Broadband Continuous Wave BCW Signal Processing.
- Retraction tool available for removal and replacement of transducers under pressure.
- Integrated volume conversion utilizing AGA-8 gross and detailed methods.
- Low power operation.
- Simultaneous transmission on multiple paths.

BENEFITS

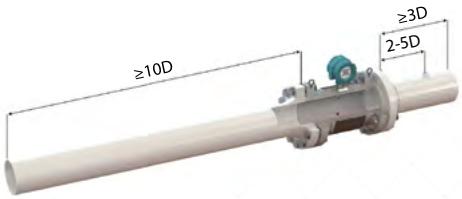
- The UIM-3 provides a reliable and accurate 3-path gas flow measurement at the price of most single path meters.
- The UIM-3F is an economical solution for fiscal measurement where the very high accuracy of UIM-4F is not required.
- Optional On-board pressure and temperature sensors allow an integrated solution for PTZ calculation, volume conversion, molecular weight calculations for flare gas or methane concentration biogas.
- Flow readings and extensive diagnostics information may be accessed using the local LCD graphics display and keypad or TIMCare® software to provide constant monitoring of the "health" of the flow system.
- Full Intrinsic safety also reduces wiring costs and installation costs and greatly simplifies field maintenance. Display/keypad and field wiring may be accessed in hazardous areas without special precautions.

FLOW RANGES

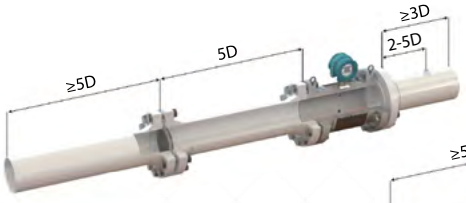
UIM SERIES: UIM-3/3F

Nominal Size	Schedule	Internal diameter [mm]	Internal diameter [inch]	Flow [m3/hr]			Flow [CFH]			Turndown
				Qmax	Qt	Qmin	Qmax	Qt	Qmin	
2" / DN50	40	52.5	2.067	320	32	2.8	11.010	1.101	96	115
	80	49.3	1.939	280	28	2.5	9.690	969	85	112
3" / DN80	40	77.9	3.068	610	61	4.9	21.223	2.122	170	125
	80	73.7	2.900	540	54	4.3	18.970	1.897	160	126
4" / DN100	40	102.3	4.026	1000	100	8	34.980	3.498	290	125
	80	97.2	3.826	900	90	7.2	31.600	3.160	260	125
6" / DN150	40	154.1	6.065	2020	202	16	71.090	7.109	550	127
	80	146.3	5.761	1820	182	14	64.150	6.415	500	130
8" / DN200	40	202.7	7.981	3490	349	27	123.100	12.310	950	130
	80	193.7	7.625	3190	319	25	112.370	11.237	870	128
10" / DN250	40	254.5	10.020	5500	550	43	194.100	19.410	1.490	128
	80	242.9	9.562	5100	510	39	176.700	17.670	1.360	131
12" / DN300	STD	304.7	11.938	7900	790	61	278.200	27.820	2.140	130
	80	289.0	11.376	7100	710	55	250.200	25.020	1.920	130
14" / DN350	STD	336.5	13.126	9700	970	74	339.200	33.920	2.610	132
	80	317.5	12.500	8600	860	66	302.000	30.200	2.320	131
16" / DN400	STD	387.3	15.250	12800	1280	98	449.500	44.950	3.450	131
	80	363.5	14.314	11300	1130	86	395.900	39.590	3.040	132
18" / DN450	STD	437.9	17.250	16300	1630	125	574.600	57.460	4.410	131
	80	409.3	14.124	14300	1430	109	502.000	50.200	3.850	132
20" / DN500	XS	482.6	19.250	19800	1980	152	697.700	69.770	5.350	131
	80	455.6	17.974	17700	1770	136	621.900	62.190	4.770	131
24" / DN600	XS	584.6	23.250	28100	2810	223	989.700	98.970	7.850	127
	80	547.7	21.562	24600	2460	196	868.800	86.880	6.890	126
30" / DN750	30	730.2	28.750	42300	4230	347	1.490.900	149.090	12.250	122
	wt. = 35	692.0	27.244	38000	3800	312	1.338.900	133.890	11.000	122
36" / DN900	30	882.2	28.750	61700	6170	507	2.176.000	217.600	17.880	122
	wt. = 35	844.0	33.244	56400	5640	464	1.991.600	199.160	16.360	122

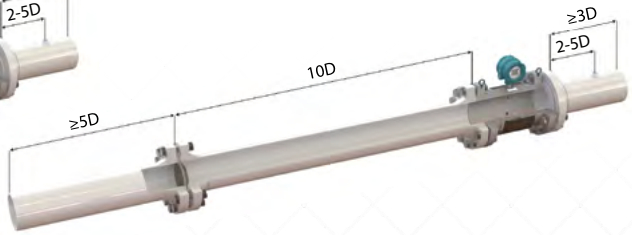
* Actual flowrange may vary depending on application



CONFIGURATION 1
Recommended configuration without flow conditioner



CONFIGURATION 2
Rocommended configuration with flow conditioner



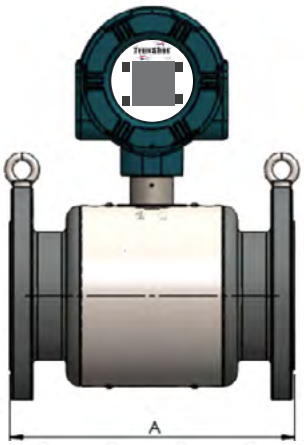
CONFIGURATION 3
Conservative configuration with flow conditioner

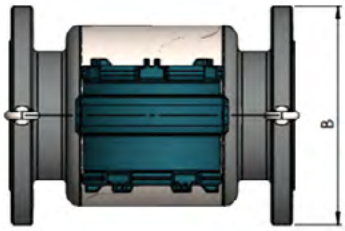
DIMENSIONS & WEIGHTS

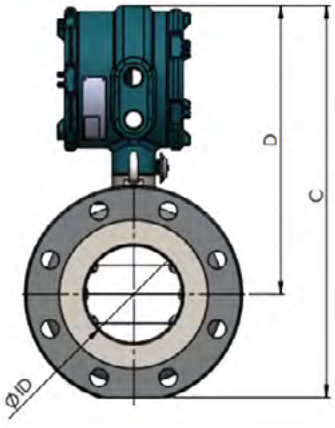
UIM SERIES: UIM-3/3F

Nominal Size [inch]	Rating	A- Length [mm]	B- Width [mm]	C - Height [mm]	Weight [kg]	A- Length [IN]	B- Width [IN]	C - Height [IN]	Weight [lb]
2" / DN50	150	260	155	362	28	10.24	6.10	14.25	62
	300/600	280	165	365	32	11.02	6.50	14.37	71
3" / DN80	150	300	190	390	41	11.81	7.48	15.35	90
	300/600	320	210	400	53	13.81	8.27	15.75	117
4" / DN100	150	300	230	410	55	11.81	9.06	16.14	121
	300	350	255	440	65	15.75	10.04	17.32	143
	600	350	275	450	82	15.75	10.83	17.72	181
6" / DN150	150	400	280	460	78	15.75	11.02	18.11	172
	300	400	320	480	96	15.75	12.60	18.90	212
	600	400	355	510	123	15.75	13.98	20.08	271
8" / DN200	150	400	345	515	125	15.75	13.58	20.28	276
	300	500	380	532	165	19.69	14.96	20.94	364
	600	500	420	570	205	19.69	16.54	22.44	452
10" / DN250	300	550	445	610	225	21.65	17.52	24.02	496
	600	550	510	640	320	21.65	20.08	25.20	706
12" / DN300	300	600	520	675	305	23.62	20.47	26.57	673
	600	600	560	695	419	23.62	22.05	27.36	924
14" / DN350	300	650	585	705	535	25.59	23.03	27.76	1180
	600	650	605	730	585	25.59	23.82	28.74	1290
16" / DN400	300	700	650	755	690	27.56	25.59	29.72	1521
	600	700	690	775	760	27.56	27.17	30.51	1676
18" / DN450	600	800	745	905	950	31.50	29.33	35.63	2095
20" / DN500	600	900	815	940	1240	35.43	32.09	37.01	2734
24" / DN600	600	1100	940	1010	1800	43.31	37.01	39.76	3969
30" / DN750	600	1300	1130	1220	2750	51.18	44.49	48.03	6084
36" / DN900	600	1400	1300	1400	3600	51.18	44.49	48.03	7938

* Actual weights and dimensions may vary for specific designs







TECHNICAL DATA UIM-3/3F

Principle of Operation	Broadband continuous wave-transit time
Flange Rating and Sizes	150, 300 and 600lbs. 2 -30", 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 to +60°C (-40 to 140°F)
Process Temperature	- 30 to +80°C (-22 to + 176°F)
Typical Uncertainty	Factory calibration $Q_t - Q_{max}$ 1% $Q_{min} - Q_t$ 2% Flow calibrated $Q_t - Q_{max}$ 0.5% $Q_{min} - Q_t$ 1%
Metrology	Meets OIML R137 Class 1.0 and AGA-9 specifications when flow calibrated
Repeatability	0.1%
Turndown	>100:1 (pipe size dependent)
Meter Body Materials	Carbon steel ASTM A350 LF2 Cl.1 Stainless steel ASTM A182-F316/316L Other materials on request
Transducers	All metal Titanium; retractable version available as option
Pressure Port	1/4" NPT female, other options on request
Electronic Enclosure Material	Epoxy painted, low copper aluminium alloy
Electronic Enclosure Cable Entry	M20x1.5 female 1/2" NPT female
Power Supply	Main power: 12 - 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	1 x USB (not intrinsically safe) 1 x Frequency output (HF or LF)
Optional Interface Ports	01-0020 - I/O Option Board 1 x RS485, two wire, externally powered 2 x Digital, software configurable (HF, LF, Status) 01-0251 - Dual RS485 Option board 2 x RS485, two wire, externally powered 2 x Digital, software configurable (HF, LF, Status) 1 x PT100, 4-wire temperature sensor interface 1 x Bridge type, 4-wire pressure sensor interface 01-0022 - PT Option Board 1 x PT100, 4-wire temperature sensor interface 1 x Bridge type, 4-wire pressure sensor interface 01-0203 - 4-20mA Option Board (Not available when Dual RS485 board fitted) 1 x 4-20mA loop powered output
Communication Protocols	MODBUS (RS485 and USB)
Hazardous Area Certification	ATEX Ex II G Ex ia IIC T4 Ga (Zone 0) IECEx Ex ia IIC T4 Ga (Zone 0) ATEX Ex ec IIC T4 Gc (Zone 2) USA/Canada Class 1, Divion 1, Group A, B, C, D T4
Ingress Protection	IP66, NEMA 4x

TMCO

THE MEASUREMENT COMPANY

www.tmcousa.com | support@tmcousa.com | 713.465.3255

Copyright© 2026 TMCO, LLC All rights reserved. Specification may change without notice.

TS-UIM-3/3F 04-2026