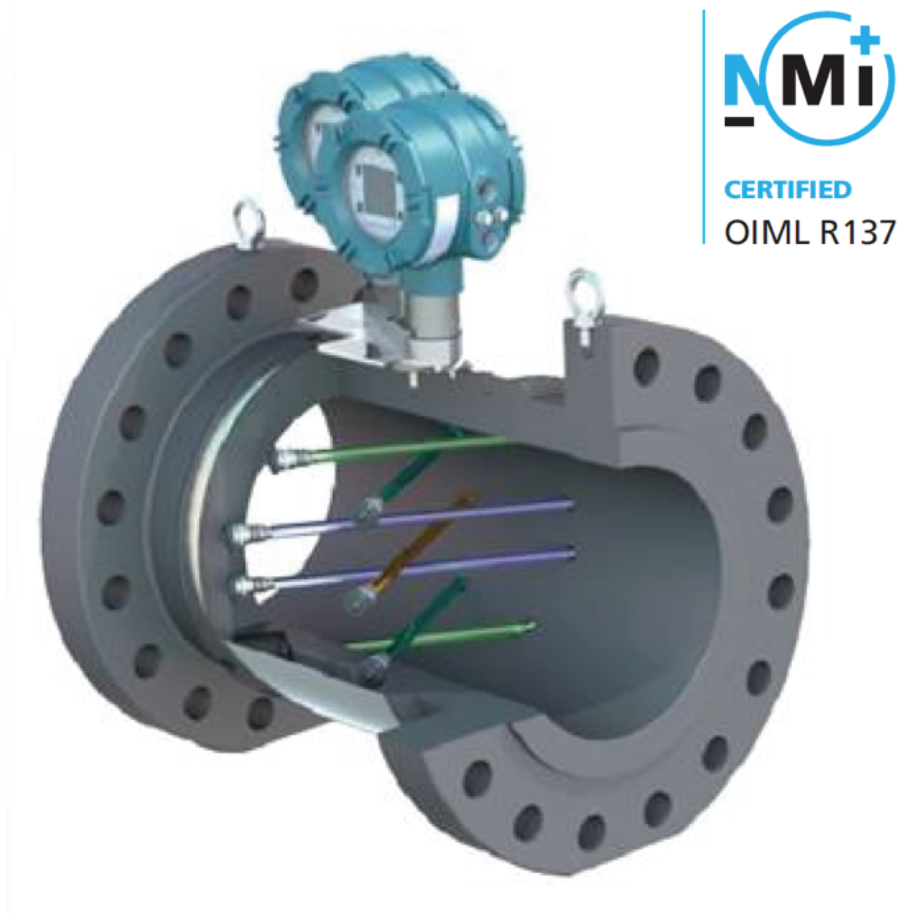




TRANSUS INSTRUMENTS



Technical Datasheet

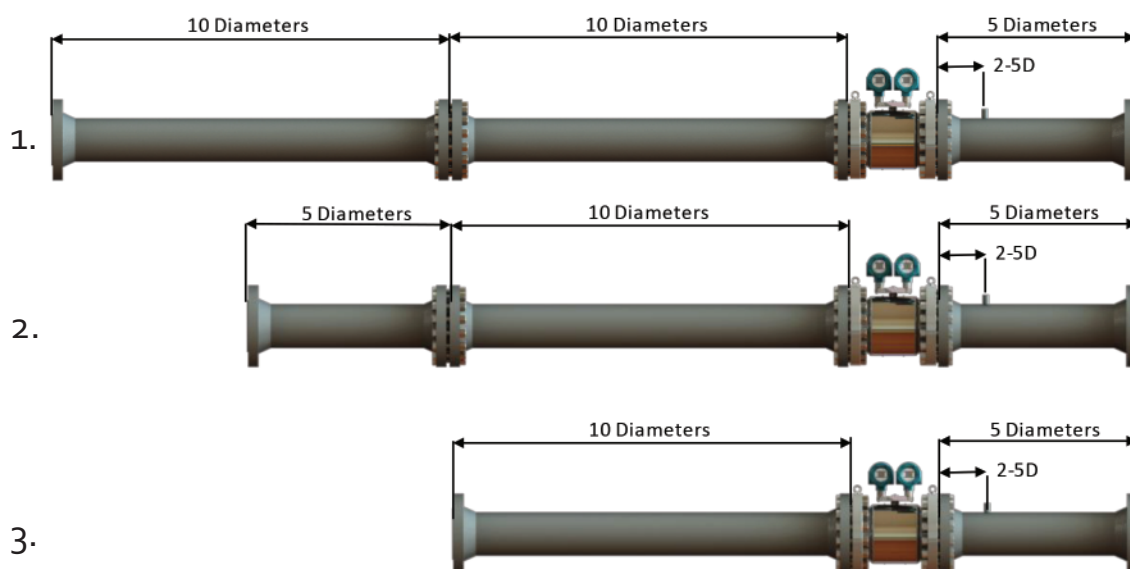
UIM-4F Duo Metric

UIM Series Flowmeter

Principle of operation	Broadband continuous wave – transit time	
Sizes	300, 600 and 900lbs; 8 – 30", other sizes on request	
Flange type	ANSI, DIN, others on request	
Pressure ranges	Up to 153 barg (2250 psig)	
Ambient temperature	-40 to +60°C (-40 to +140°F)	
Process temperature	-30 to +80°C (-22 to +176°F)	
Configurations	Meter A	Meter B
UIM-4F-Duo 4+3	UIM-4F	UIM-3
UIM-4F-Duo 4+4	UIM-4F	UIM-4F
Typical uncertainty	Per UIM-4F and UIM-3/3F technical datasheets	
Metrology	UIM-4F AGA-9 compliant OIML R137-1&2 MID 2014/32/EU	UIM-3 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	1 x 1/4" NPT female, common for both meters, others on request	
Electronic enclosure material (each SPU)	Epoxy painted, low copper aluminum alloy	
Electronic enclosures cable entry (each SPU)	M20x1.5 female 1/2" NPT female	
Power supply (each SPU)	Main power: 14 – 29VDC, 670mW max I/O option board power: 14 – 29VDC, 225mW max	
User interface (each SPU)	128x128 dot matrix LC Display, 4 keys	
Interface ports (each SPU)	1x USB (not intrinsically safe) 1x HF Frequency output / LF pulse output	
Optional interface ports (each SPU)	<u>Option board slot 1</u> 1x RS485, two wire, externally powered 2x Digital, software configurable (HF, LF, Status) <u>Option board slot 2</u> - Pressure and temperature sensors - 4...20mA/HART Option board 1 x 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 CSA/FM - Class I, Division 1, Group A,B,C,D T4	
Ingress Protection	IP66, NEMA 4X	

Flowranges [Metric]	Nominal Size	Schedule	Internal diameter [mm]	Flow [m ³ /hr]			Turndown
				Qmax	Qt	Qmin	
	8" / DN200	40	202.7	3490	349	35	100
		80	193.7	3190	319	32	100
	10" / DN250	40	254.5	5500	550	55	100
		80	238.2	4900	490	49	100
	12" / DN300	STD	304.7	7900	790	79	100
		80	289.0	7100	710	71	100
	14" / DN350	STD	336.5	9700	970	97	100
		80	317.5	8600	860	86	100
	16" / DN400	STD	387.3	12800	1280	128	100
		80	363.5	11300	1130	113	100
	18" / DN450	STD	437.9	16300	1630	163	100
		80	409.3	14300	1430	143	100
	20" / DN500	XS	482.6	19800	1980	198	100
		80	455.6	17700	1770	177	100
	24" / DN600	XS	584.6	28100	2810	290	97
		80	547.7	24600	2460	255	97
	30" / DN750	30	730.2	42300	4230	453	94
		wt = 35	692.0	38000	3800	407	94

* 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

For bi-directional flow; The upstream piping spools and flow conditioner as applicable from configurations 1, 2 and 3 can be used on both ends of the metering package. Any thermowell should be positioned 3 – 5 diameters away from meter flanges.

Dimensions and weights

Dimensions and weights [Metric]	Nominal Size	Rating	A- Length [mm]	B- Width [mm]	C - Height [mm]	Weight [kg]
	8" / DN200	300	600	380	560	200
		600	600	420	600	225
	10" / DN250	300	600	445	640	265
		600	600	510	680	315
	12" / DN300	300	600	520	700	305
		600	600	560	720	385
	14" / DN350	300	600	585	635	425
		600	600	605	655	485
	16" / DN400	300	700	650	690	640
		600	700	690	710	680
	18" / DN450	600	900	745	905	950
	20" / DN500	600	1000	815	940	1150
	24" / DN600	600	1100	940	1010	1500
	30" / DN750	600	1300	1130	1220	2450

