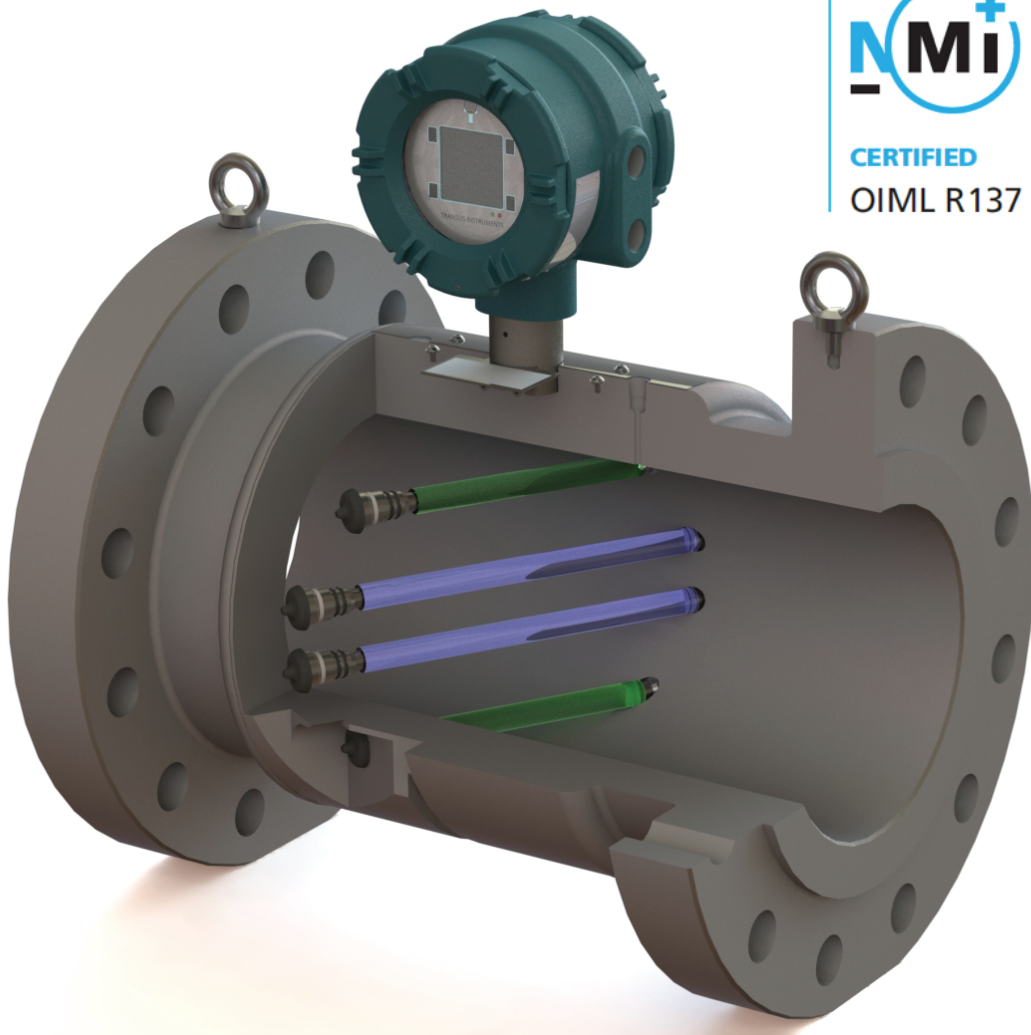




TRANSUS INSTRUMENTS



Technical Datasheet

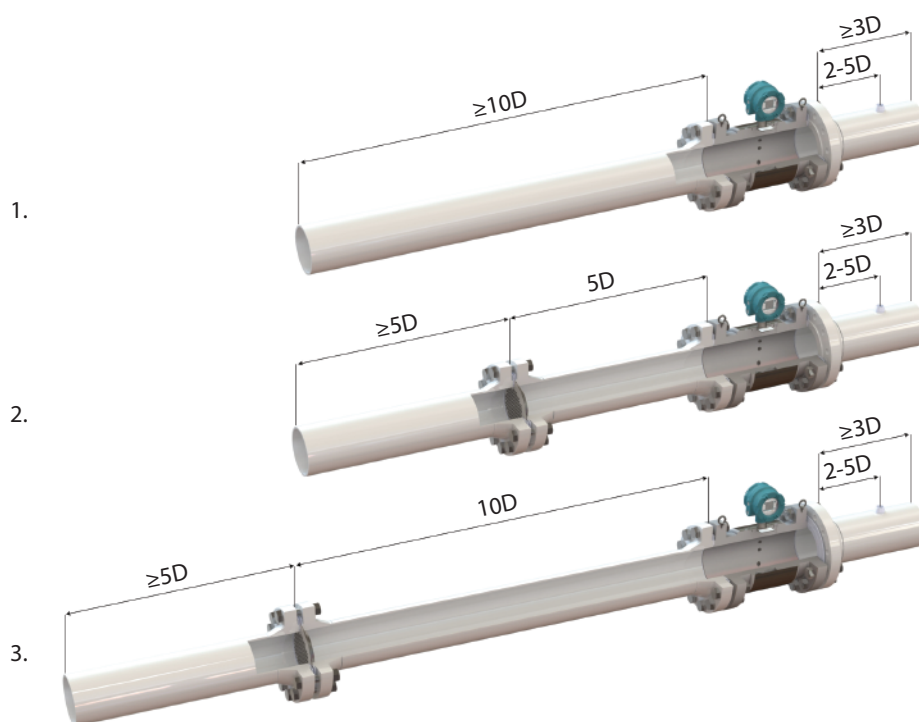
UIM-4F

Metric

UIM Series Flowmeter

Principle of operation	Broadband continuous wave – transit time
Sizes	150, 300, 600 and 900lbs; 3 – 36", other sizes on request
Flange type	ANSI, DIN, others on request
Pressure ranges	Up to 153 bar (2250 psi)
Ambient temperature	-40 to +60°C (-40 to +140°F)
Process temperature	-30 to +80°C (-22 to +176°F)
Typical uncertainty	0.5% ($Q_t - Q_{max}$) factory calibration 1% ($Q_{min} - Q_t$) factory calibration 0.2% ($Q_t - Q_{max}$) flow calibration 0.5% ($Q_{min} - Q_t$) flow calibration
Metrology	AGA-9 compliant OIML R137-1&2 MID 2014/32/EU
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	1/4" 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, 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 HF Frequency output / LF pulse 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 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

	Nominal Size	Schedule	Internal diameter [mm]	Flow [m ³ /hr]			Turndown
				Qmax	Qt	Qmin	
Flowranges metric	3" / DN80	40	77.9	610	61	7	88
		80	73.7	540	54	7	78
	4" / DN100	40	102.3	1000	100	12	84
		80	97.2	900	90	11	82
	6" / DN150	40	154.1	2020	202	21	97
		80	146.3	1820	182	19	96
	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	242.9	5100	510	51	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
	36" / DN900	30	882.2	61700	6170	661	94
		wt = 35	844.0	56400	5640	605	94



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

Flowranges and configurations

Dimensions and weights

Dimensions and weights - metric	Nominal Size	Rating	A- Length [mm]	B- Width [mm]	C - Height [mm]	Weight [kg]
	3" / DN80	150	300	190	375	35
		300	350	210	385	45
		600	350	210	405	52
	4" / DN100	150	350	230	410	56
		300	350	255	422	60
		600	400	275	480	80
	6" / DN150	150	400	280	457	78
		300	400	320	477	96
		600	400	355	510	120
	8" / DN200	150	450	345	515	145
		300	500	380	532	175
		600	500	420	570	192
	10" / DN250	300	550	445	610	245
		600	550	510	640	295

