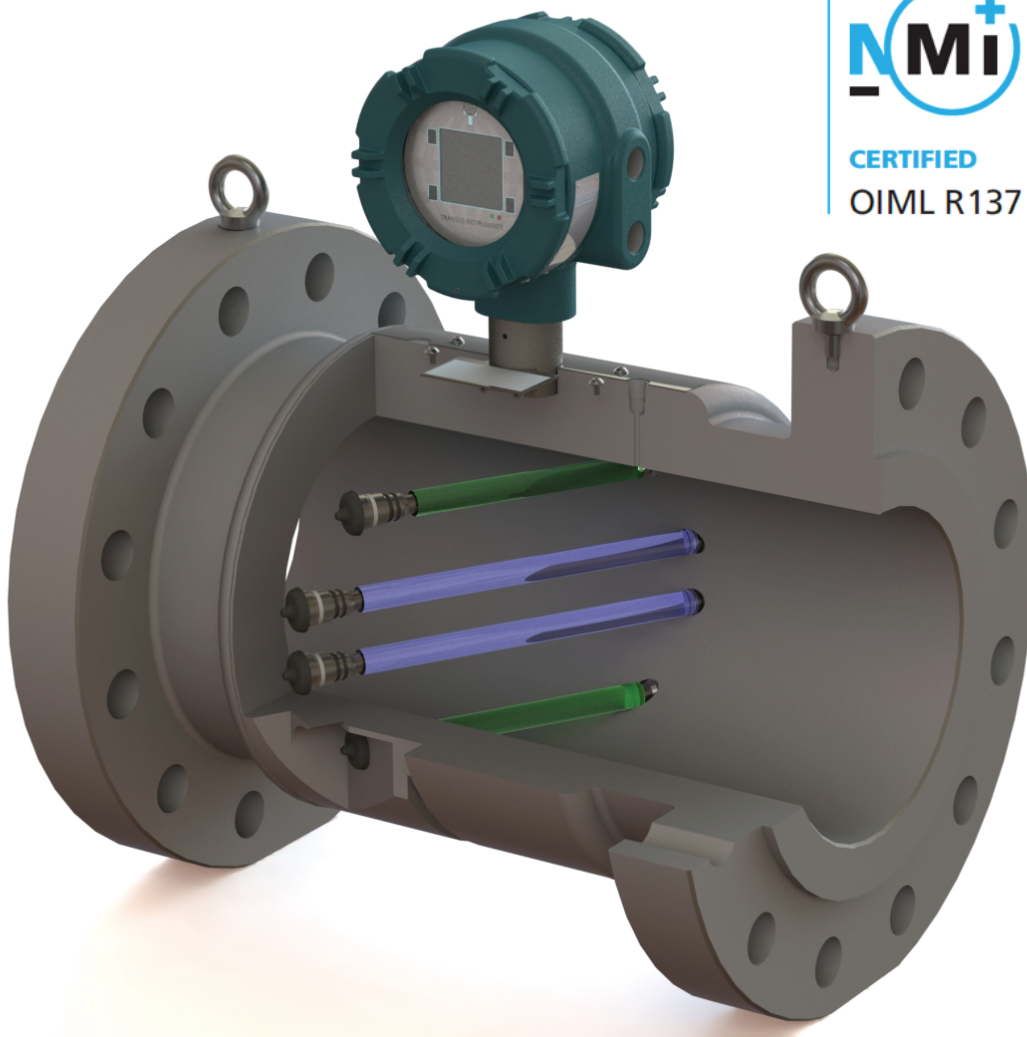




# TRANSUS INSTRUMENTS

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OIML R137

UIM Series Flowmeter

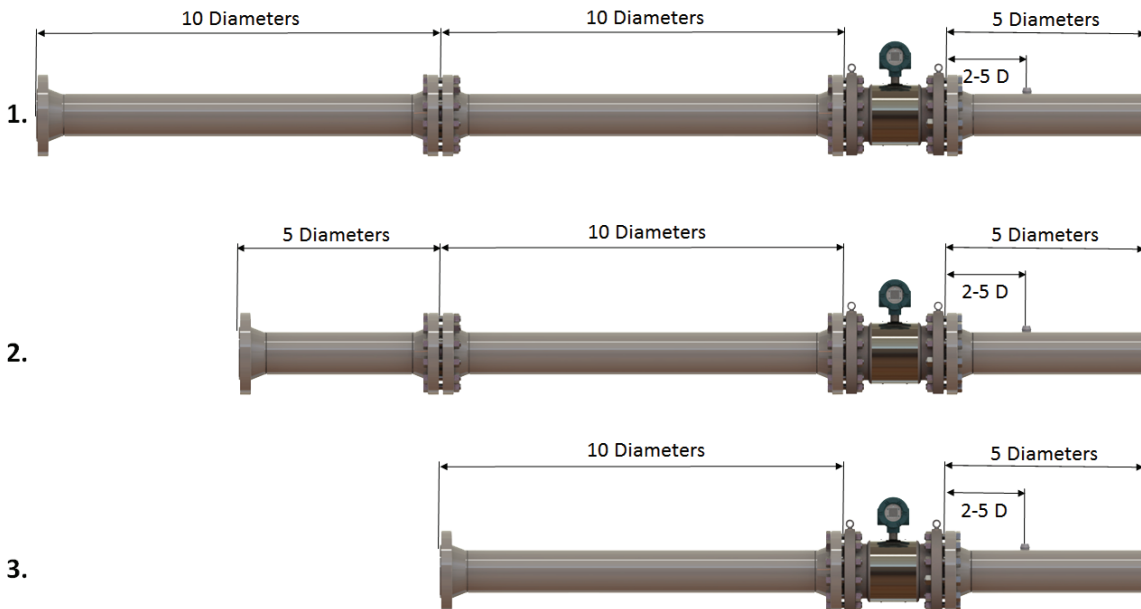
## Technical Datasheet

### UIM-4F Metric

Principle of operation	Broadband continuous wave – transit time
Sizes	150, 300, 600 and 900lbs; 3 – 30", 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 o 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 <sup>3</sup> /hr]			Turndown
				Qmax	Qt	Qmin	
	3" / DN80	40		77.9	610	61	7
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		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.

# 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	372	35
		300	350	210	382	36
		600	350	210	382	38
	4" / DN100	150	350	230	410	56
		300	350	255	422	60
		600	400	275	447	81
	6" / DN150	150	350	280	457	57
		300	400	320	477	96
		600	400	355	510	120
	8" / DN200	150	400	345	515	86
		300	500	380	532	175
		600	500	420	570	192
10" / DN250	300	550	445	610	245	
	600	550	510	640	295	
12" / DN300	300	600	520	675	285	
	600	600	560	695	365	
14" / DN350	300	600	585	705	405	
	600	600	605	730	435	
16" / DN400	300	700	650	755	620	
	600	700	690	775	660	
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	

