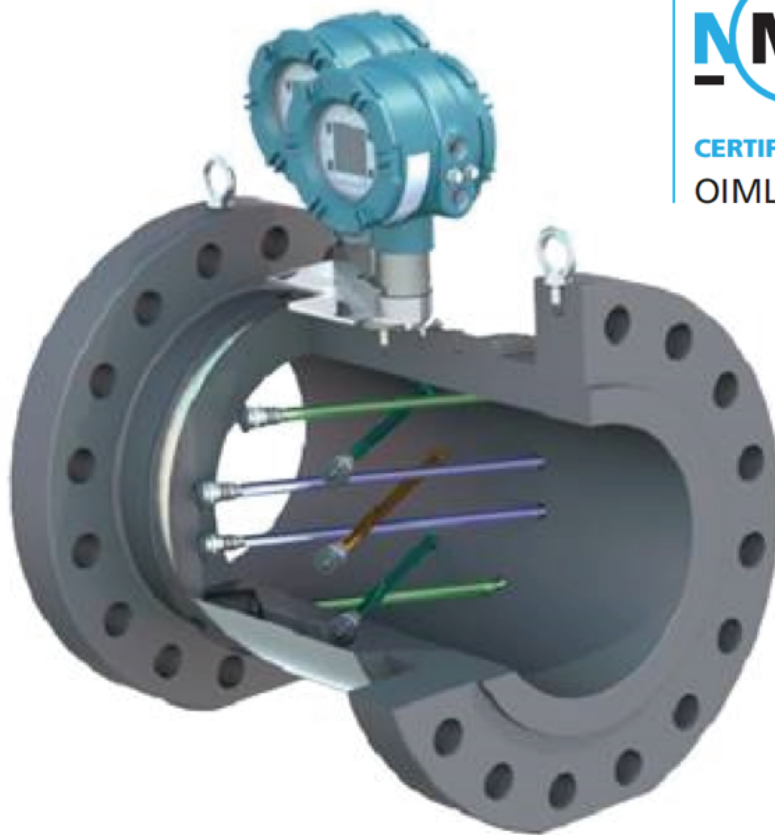




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OIML R137

Technical Datasheet

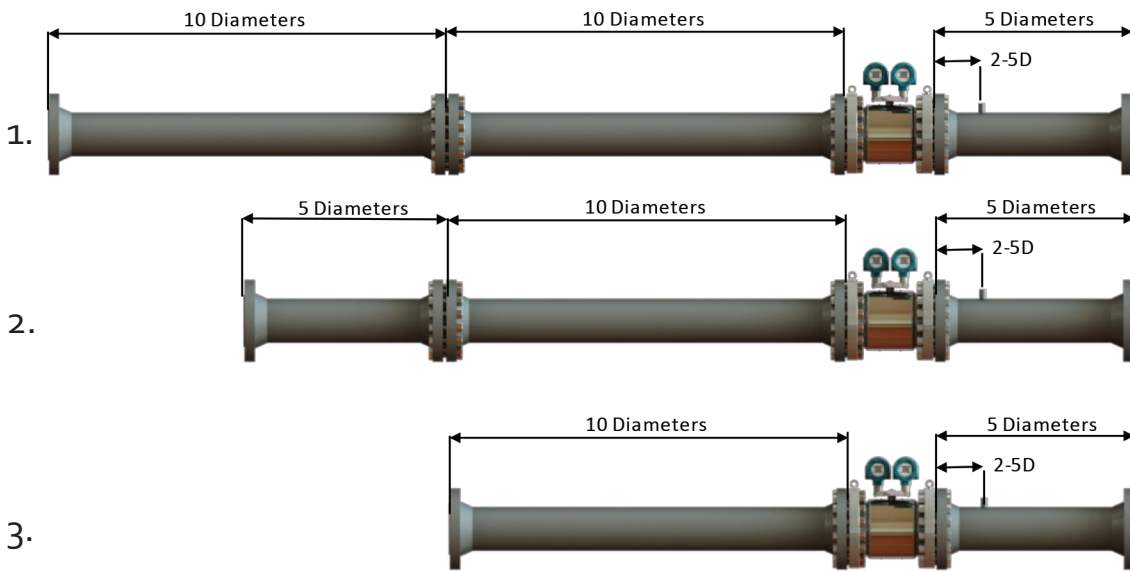
UIM-4F Duo

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 [US Imperial]	Nominal Size [inch]	Schedule	Internal diameter [inch]	Flow [CFH]			Turndown
				Qmax	Qt	Qmin	
	8	40		7.981	123,100	12,310	1,240
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
18	STD		15.000	574,600	57,460	5,750	100
	80		14.314	502,000	50,200	5,020	100
20	XS		15.000	697,700	69,770	6,980	100
	80		14.314	621,900	62,190	6,220	100
24	XS		15.000	989,700	98,970	10,240	97
	80		14.314	868,800	86,880	8,990	97
30	30		15.000	1,490,900	149,090	15,980	94
	wt = 35		14.314	1,338,900	133,890	14,350	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 [US Imperial]	Nominal Size	Rating	A- Length [IN]	B- Width [IN]	C - Height [IN]	Weight [lb]
	8	300	19.7	15.0	22.0	441
	600	19.7	16.5	23.6	496	
10	300	21.7	17.5	25.2	584	
	600	21.7	20.1	26.8	695	
12	300	23.6	20.5	27.6	673	
	600	23.6	22.0	28.3	849	
14	300	23.6	23.0	25.0	937	
	600	23.6	23.8	25.8	1069	
16	300	27.6	15.0	22.0	441	
	600	27.6	16.5	23.6	496	
18	600	35.4	29.3	35.6	2095	
20	600	39.4	32.1	37.0	2536	
24	600	43.3	37.0	39.8	3308	
30	600	51.2	44.5	48.0	5402	

