

Technical Datasheet UIM-4F Duo Metric

UIM Series Flowmeter

Technical data

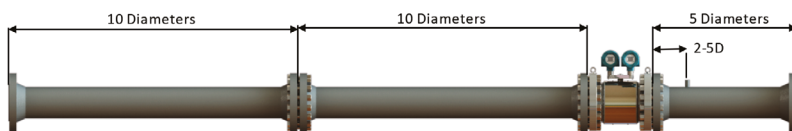
Principle of operation	Broadband continuous wave- transit time	
Sizes	300, 600 and 900lbs; 8 - 30" , other sizes on request	
Flang type	ANSI, DIN, others on request	
Pressure ranges	Up to 153 barg (2250psig)	
Ambient temperature	-40 to +60°C (-40 to +140°F)	
Process temperature	-30 to +80°C (-22 to +176°F)	
Configurations	Meter A UIM-4F UIM-4F	MeterB UIM-3 UIM-4F
Typical uncertainty	Per UIM-4F and UIM-3/3F technical datasheets	
Metrology	UIM-4F AGA-9 compliant OIML R 137- 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	1x 1/4" NPT female, common for both meters, others on request	
Electronic enclosure material (each SPU)	Epoxy painted, low copper aluminum alloy	
Electronic enclosure 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 <u>4-20mA/HART Option board</u> 1x 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

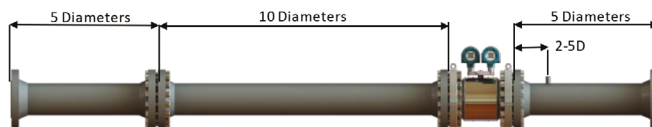
Flowranges and configurations

Flowranges metric	Nominal size	Schedule	Internal diameter (mm)	Flow (m ³ /hr)			Turndown	
				Q _{max}	Q _t	Q _{min}		
	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	

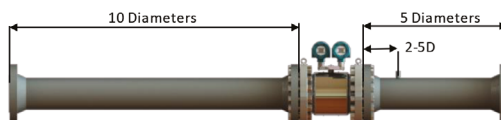
* Actual flowrange may vary depending on application



Configuration 1.
Recommended configuration without flow conditioner



Configuration 2.
Recommended configuration with flow conditioner



Configuration 3.
Conservative configuration with 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 flangea.

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	

