


# LMDu+ Series

Pelton Wheel flowmeter with high pressure Duplex body, providing a pulse output.

Model Type	Flow Rate Range	Pressure Drop
<b>LMDu690.003**</b>	0.004 to 0.060 l/min	0.18 bar @ 0.03 l/min; 0.7 bar @ 0.06 l/min
<b>LMDu690.005</b>	0.006 to 0.100 l/min	0.18 bar @ 0.05 l/min; 0.7 bar @ 0.10 l/min
<b>LMDu690.01</b>	0.01 to 0.25 l/min	0.33 bar @ 0.125 l/min; 1.3 bar @ 0.25 l/min
<b>LMDu690.05</b>	0.02 to 1.3 l/min	0.18 bar @ 0.65 l/min; 0.74 bar @ 1.3 l/min
<b>LMDu690.24</b>	0.03 to 4.3 l/min	0.3 bar @ 2 l/min; 1.2 bar @ 4.3 l/min
<b>LMDu690.45</b>	0.04 to 6.3 l/min	0.23 bar @ 3 l/min; 1.3 bar @ 6.3 l/min
<b>LMDu690.48</b>	0.06 to 8 l/min	0.30 bar @ 4 l/min; 1.2 bar @ 8 l/min
<b>LMDu690.90</b>	0.08 to 15 l/min	0.25 bar @ 9 l/min; 0.7 bar @ 15 l/min
<b>LMDu690.220</b>	0.1 to 28 l/min	0.24 bar @ 10 l/min; 1.8 bar @ 28 l/min
<b>LMDu690.330*</b>	0.3 to 33 l/min	0.3 bar @ 16 l/min; 1.2 bar @ 33 l/min

\* Special Order \*\*Lower flows on request

### Common Features:

Pressure Rating	690 bar [optional 345 bar, 1035 bar and 1380 bar; max design 2068 bar; replace 690 with pressure rating in meter code]	
Temperature Rating	135°C – refer calibration certificate; depends on connection type, sensor type, pressure and design. (IS version – ambient temperature -40°C to +60°C, process temperature max 70°C)	
Viscosity Range	Up to 10 cPs; ring factory if higher	
Accuracy	±2% of actual reading for the top 90% of range. ±0.5% FSD for the bottom 10% of range. [003 and 005 linearisation required]	
Repeatability	±0.2% reading over top 90% of range	
Pipe Size	To customers specification – typically Grayloc®/Destec/Galperti/Autoclave/Butech	
Weight	Weights on application. For example 2GR11 version of LM330 weighs 28kg.	
Body and Internals	Duplex with Teflon PFA rotor and sapphire/sapphire bearings. Some 316 wetted parts. (Optionally titanium or duplex). Ferrites in PFA rotor are sealed from the fluid. Sensing Electronics: Duplex & 316N	
Seal	Viton or silver plated Inconel O Ring depending on application	
External materials of sensing electronics	Naval Brass – IP68 and/or 316SS or 303SS	
Output & Power	NPN open collector with 4-way M12 sensor connector [IEC-61076-2-101] – e.g. compatible with Brad Harrison, Hirschmann, ERNI and Turck Banner. Supplied with 5m cable – bare ends. 8 to 28Vdc input.	

### Options:

Output	PNP or TTL (identified by green or blue cap respectively). Also divide by 2, 4 or 10 function
Connections	Plain OD pipe for butt welding or wafer/flanges available in alternate sizes and styles
Flow rate, temperature and pressure	Alternate ratings available in different sizes and styles, consult factory for further details
IS Hazardous Area Version ATEX	Available in alternate styles to EEx ia IIC T5 – consult factory for further details (limited to process temperatures up to 70°C) Consult factory for input and output data. Housed in an IP65 epoxy coated die-cast aluminium body-mounted enclosure with 5pin DIN socket.
SB or BB IS Electronics pickup	For use either when instrumentation is also included in the hazardous area or an M20 gland is required. Body-mounted stainless steel or Naval Brass IP68 enclosure, one or two M20x1.5 gland entries.

### Documentation:

Operating and Maintenance Manual	LM0095 with General Information LM0092
Installation Drawing	C5048 or ask factory advice
Conformity:	These products conform to PED and EMC. ATEX option available.

## Flowmeter Specification Sheet

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