# MMSPFA+ Series

LITREMETER
Specialist flow measurement engineering

**Pelton Wheel flowmeter with 316 stainless steel body, providing a pulse output.**

| Model Type | Flow Rate Range | Pressure Drop | Pipe Size | Weight |
|---|---|---|---|---|
| **MMSPFA.12.5** | 1 to 65 l/min | 0.2 bar @ 32l/min; 0.9 bar @ 65 l/min | ½" BSP female | 2.5 kg |
| **MMSPFA.20** | 2 to 130 l/min | 0.17 bar @ 65 l/min; 0.69 bar @ 130 l/min | ¾" BSP female | 2.5 kg |
| **MMSPFA.25** | 3 to 160 l/min | 0.17 bar @ 80 l/min; 0.69 bar @ 160 l/min | 1" BSP female | 4 kg |
| **MMSPFA.30** | 5 to 220 l/min | 0.17 bar @ 110 l/min; 0.69 bar @ 220 l/min | 1¼" BSP female | 4 kg |
| **MMSPFA.37** | 7 to 350 l/min | 0.17 bar @ 175l/min; 0.7 bar @ 350 l/min | 1 ½" Wafer fitting | 4 kg |
| **MMSPFA.50** | 10 to 500 l/min | 0.17 bar @ 250 l/min; 0.7 bar @ 500 l/min | 2" Wafer fitting | 4 kg |
| **MMSPFA.62*** | 20 to 800 l/min | 0.17 bar @ 400 l/min; 0.7 bar @ 800 l/min | 2 ½" Wafer fitting | kg |
| **MMSPFA.75*** | 25 to 1300 l/min | 0.17 bar @ 650 l/min; 0.7 bar @ 1300 l/min | 3" Wafer fitting | kg |
| **MMSPFA.100*** | 25 to 2200 l/min | 0.17 bar @ 1100l/min; 0.7 bar @ 2200 l/min | 4" Wafer fitting | kg |
| **MMSPFA.150*** | 100 to 5000 l/min | 0.17 bar @ 2500 l/min; 0.7 bar @ 5000 l/min | 6" Wafer fitting | kg |
| **MMSPFA.200L*** | 300 to 5500 l/min | 0.17 bar @ 4000 l/min; 0.7 bar @ 8000 l/min | 8" Wafer fitting | kg |

*Lower flows on request

**Common Features:**

| | |
|---|---|
| Pressure Rating | 40 bar [120 bar option, add .120 to model type] |
| Temperature Rating | 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 |
| Body and Internals | 316SS with PFA rotor and sapphire/sapphire bearings |
| Ferrites | Sealed |
| Seal | FPM 'O' ring (subject to chemical compatibility). [120 bar version has PTFE gasket] |
| Wetted parts of sensing electronics | 316SS |
| External materials of sensing electronics | 316SS or 303SS and anodised aluminium |
| 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 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 |
| Seals | FEP covered Silicon, EPDM or FKM for chemical protection |
| **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.<br>Body-mounted stainless steel or Naval Brass IP68 enclosure, one or two M20x1.5 gland entries. |

**Documentation:**

| | |
|---|---|
| Operating and Maintenance Manual | LM0111 with General Information LM0092 |
| Installation Drawing | C6089 or C3678 and general installation C3729 |
| Conformity: | These products conform to PED and EMC. ATEX option available. |



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