POSITIVE DISPLACEMENT FLOWMETERS
MX SERIES & M SERIES

AUSTRALIAN MADE

2 YEARS MACNAUGHT WARRANTY

The **MX-SERIES** innovation features:

- Modular design construction
- M-Lock™ quick release mechanism
- Versatile and user friendly
- Programmable digital display and pulse output options

MX Series

The **M-SERIES** is Macnaught's original range featuring:

- Established design and cast construction for proven performance
- Mechanical displays

M Series

FEATURE & BENEFITS

- **Precision Oval Gear:** Achieve high accuracy and repeatability through meticulously machined oval gear technology.
- **Versatile Viscosity Measurement:** Capable of measuring both high and low viscosity liquids, enhancing its usability across applications.
- **Low Maintenance:** Minimal maintenance requirements translate to a low lifetime cost of ownership. Frequent calibration is not required.
- **Space-Efficient Design:** The compact meter, without the need for flow conditioning, allows for installation in tight spaces and skids.
- **Material Versatility:** Offers a wide range of material choices, including Stainless Steel (SS), Aluminium (Al), and Polyphenylene Sulfide (PPS), catering to specific application needs.
- **ATEX, IECEx Approval:** Optional Exd I/IIB approval for ATEX and IECEx standards, ensuring safety and compliance.
- **Bi-Directional Flow:** Suitable for bi-directional flow, making it ideal for fuel consumption applications.
- **Specialized Options:** Additional options available for chemical resistance, high-pressure capability, and custody transfer applications, as well as high resolution outputs.

APPLICATIONS

- Fuel measurement & monitoring systems
- Bio diesel blending & production
- Diesel fuel additive blending
- Chemical dosing
- Centrifugal oil application
- Ethanol blends & production
- Heating oil measurement
- Boiler fuel measurement
- Bunker/vessel fuel measurement
- Solvent blending & dispensing
- Lubricant blending & dispensing
- Hydraulic fluid dispensing
- Test stands and transmission fluid/hydraulic oil

TECHNICAL SPECIFICATIONS

Flow Range	2 LPH to 2500 LPM in sizes 1/4" to 4"	Repeatability	±0.03%
Temperature	-40°C to 80°C (high temp meter up to 150°C)	Suitability	Viscous fluids
Accuracy	±0.5% (±1.0% for Mechanical) of reading	K-Factor	Single point calibration

MX Series Flowmeter Model Selection Guide

Part Number Configuration - Select Body & Output Type

1. Body

With the product configuration provided below, create the body part number. Add an output type if required.

Series	Size/Flow Range			Category/Body/Seal		-	Connection Type		Rotor Type		Output Type	
MX	25			F		-	2		S		X	
MX	06	1/4”	2-100 LPH	F	Aluminium / Viton Seal	-	1	BSP (G) Threads	S	Standard (PPS - F & P and SS - S)	X	No Output
	09	1/4”	0.5-16.5 LPM	P	Stainless Steel / PTFE Encapsulated Teflon Seal		2	NPT Threads	H	Standard (High Viscosity)		
	12	1/2”	3-45 LPM	S	Aluminium / PTFE Encapsulated Teflon Seal		3	ANSI CL #150 Flanges	P	Polyether Ether Ketone (PEEK)		
	19	3/4”	8-70 LPM				4	JIS 10K Flanges	T	Stainless Steel (High Temperature 150°C)		
	25	1”	10-160 LPM				5	DIN PN16 Flanges	V	Stainless Steel (High Viscosity)		
	40	1½”	15-350 LPM									
	50	2”	15-580 LPM									
	75	3”	60-1200 LPM									
	100	4”	120-2500 LPM									

2. Output Type

Select the required output type from the options below to go with the body part number selected above.

Part Number	Description
MXD-AS	Standard Pulse (1 x Hall effect switch + 1 x Reed switch)
MXD-BS	Pulse Intrinsically Safe Ex ia (NPN)
MXD-CS	Pulse Explosion Proof Ex d (NPN)
MXD-DS	PR (LCD 12 mm Display)**
MXD-ES	PRA (LCD 12 mm Display) with outputs**
MXD-FS	ER (LCD 17 mm Display)
MXD-FXS	ER (LCD 17 mm Display) Simple Apparatus Intrinsically Safe
MXD-GS	ERA (LCD 17 mm Display) with outputs
MXD-GXS	ERA (LCD 17 mm Display) with outputs Simple Apparatus Intrinsically Safe

Part Number	Description
MXD-HS	ERB (LCD 17 mm Display) Batch Controller
MXD-HXS	ERB (LCD 17 mm Display) Batch Controller Simple Apparatus Intrinsically Safe
MXD-IS	Standard Pulse (2 x Reed switches)
MXD-JS	Standard Pulse (2 x Hall effect switches)
MXD-MS	PRM (LCD 12 mm Display with 4-20 mA) Output**
MXD-NS	Pulse Intrinsically Safe Ex ia (NAMUR)
MXD-TS	Pulse High Temperature Sensor (NPN)
MXD-FCMX	6 PIN Pulse with RTD PT100 Sensor (NPN)
MXD-ACM-RH	Industrial Cap Aluminium M20 x 1.5 (Reed, Hall, PT1000, Omni polar)

*MX06 & MX09 require additional adaptor for MXD-FXS, GXS and HXS output type.
*MXD-FXS, GXS and HXS display feature password protected user menu.
*MX75 & MX100 are only available in F and S category with Aluminium body and rotors.
*Temperature limit for units with integral display and PPS rotors is 176°F/80°C (140°F/60°C)**
* Temperature limit for units with SS or PEEK rotors without high temperature sensor (MXD-TS) is 248°F/120°C
* Pressure ratings as follows:
MX06 & MX09 = 1,000 psi MX40 = 1,500 psi MX75 & MX100 = 175 psi
MX12 to MX25 = 2,000 psi MX50 = 1,200 psi

Intrinsically Safe & Explosion proof models available - consult technical team

M Series Flowmeter Model Selection Guide

Part Number Configuration - Select Body & Output Type

With the product configuration provided below, create the flowmeter part number.

Body Material		Size/Flow Range			-	Connection Type		Rotor Type		Output Type	
F		025			-	1		S		3	
F	Aluminium / Viton Seal	012	1/2”	3-45 LPM		1	BSP (G) Threads (Litre)	S	Standard (PPS)	3	Standard Mechanical Register
M	Stainless Steel / PTFE Encapsulated Teflon Seal	025	1”	10-160 LPM		2	NPT F Threads (US Gallons)	T	Stainless Steel	4	Heavy Duty Mechanical Register
S	Aluminium / PTFE Encapsulated Teflon Seal	040	1½”	15-350 LPM		3	NPT F Threads (Litre)				
		050	2”	15-580 LPM							
		075	3”	60-1200 LPM							
		100	4”	120-1200 LPM							

*Note:
Size 2”, 3” and 4” requires additional flange (FKIT) for any connection type.
Size 3” and 4” comes with Aluminium Rotor as standard.
ANSI CL #150 flange kit is available for 1” and above.

SCAN FOR MORE INFORMATION

UK CA CE

Intrinsically Safe & Explosion proof models available - consult technical team