

# FLEXMAG 4050 C Flowmeter

KROHNE FLEXMAG 4050 C Flowmeter

## Features and benefits

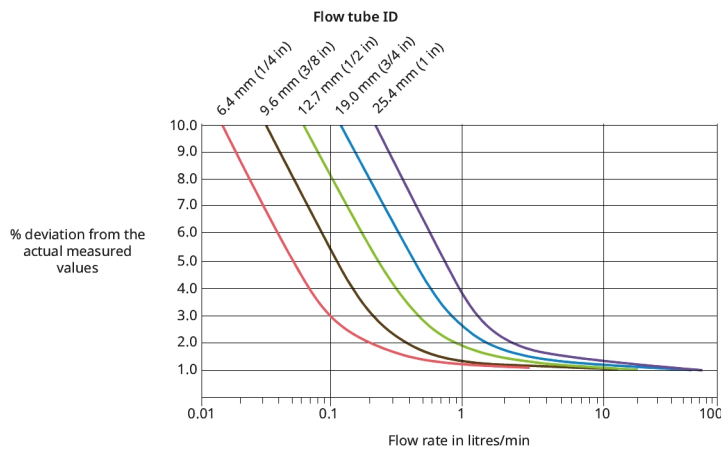
- Electromagnetic flowmeters provide superior accuracy and repeatability
- Verify accurate flow conditions of compatible Watson-Marlow pumps
- Enable easy integration into customised puresu single-use assemblies to ensure product quality



## FLEXMAG 4050 C Flowmeter performance

Flow tube ID and tube bore	Transmitter	Flowmeter flow range (l/min)	Flow rate range and flow sensor measuring error	Flow rate range and flow sensor measuring error	Watson-Marlow cased pumps		
ID 6.4 mm (1/4 in)	Small	0.015 to 3 l/min	0.1 to 1 l/min	up to 3.5%	1 to 3 l/min	530	
ID 9.6 mm (3/8 in)	Medium	0.07 to 14 l/min	0.2 to 2 l/min		2 to 14 l/min	630	
					up to 1.35%	630	
ID 12.7 mm (1/2 in)	Medium	0.1 to 20 l/min	0.4 to 4 l/min			4 to 20 l/min	730
ID 19.0 mm (3/4 in)	Large	0.3 to 62 l/min	0.9 to 8.5 l/min			8.5 to 62 l/min	730
ID 25.4 mm (1 in)	Large	0.5 to 75 l/min	1.5 to 15 l/min	15 to 75 l/min	730		

Figure 1: Accuracy and Flow Performance



## Technical specifications

FLEXMAG 4050 C Flowmeter	
Working temperature range	2 °C to 45 °C
Working temperature range	36 °F to 113 °F
Storage temperature range	-40 °F to 140 °F
Storage temperature range	-40 °C to 60 °C
Max. operating pressure	4 bar (58 psi)
Ingress Protection	IP54
Power supply	24 V DC
Weight	0.39 - 0.46 kg (0.86 - 1.01 lbs)
Flow rate range	0.015 L/min to 75 L/min
Pulse output	0 to 1000 Hz
Min. fluid conductivity requirement	≥20 µs/cm
Sterility	Flow tubes and bags are gamma sterilisable up to 50kGy and autoclavable up to 121°C for 30 min
Connector	M12 8-pin
Cable	2m cable included. Transmitter end: M12 8-pin connector fitted. Control end: unfinished.
Certification and compliance	BSE/TSE free, FDA 21 CFR 177, USP Class VI

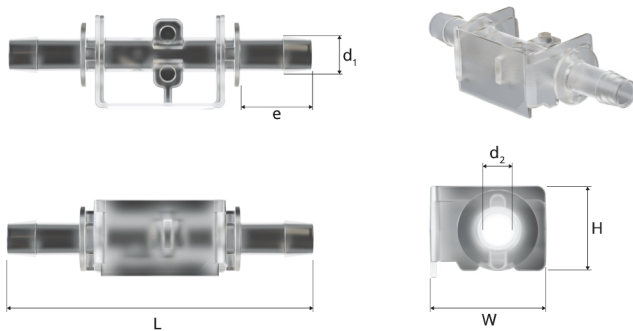
Small: 0.40 kg (0.88 lbs), Medium: 0.39 kg (0.86 lbs), Large: 0.46 kg (1.01 lbs)

## Materials of construction

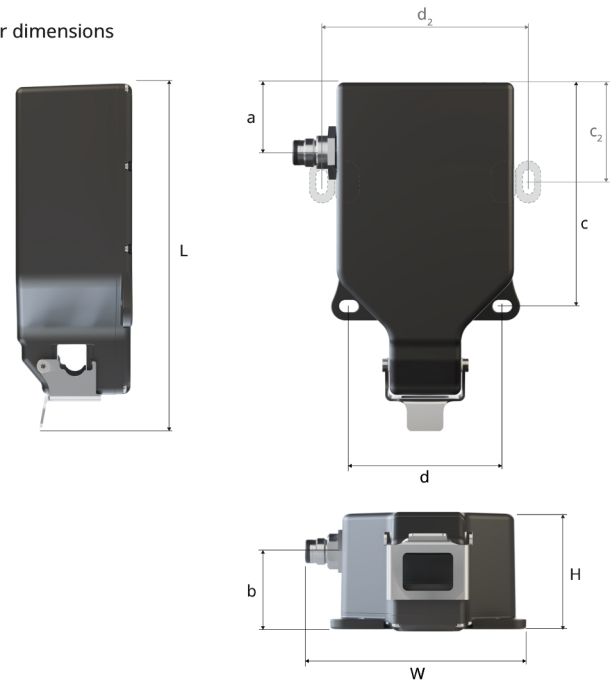
FLEXMAG 4050 C Flowmeter	
Case material	Acrylonitrile butadiene styrene (ABS), Polycarbonate (PC)
Wetted material	Hastelloy C22, Polysulfone (UDEL 1700)

## FLEXMAG 4050 C Flowmeter dimensions

Flow tube dimensions



Transmitter dimensions



### Dimensions transmitter

Nominal size	L	W	H	a	b	c	d
Large	160 mm (6.30 in)	100 mm (3.94 in)	60 mm (2.36 in)	23 mm (0.91 in)	42 mm (1.65 in)	100 mm (3.94 in)	59 mm (2.32 in)
Medium	139 mm (5.47 in)	90 mm (3.54 in)	48 mm (1.89 in)	23 mm (0.91 in)	33 mm (1.30 in)	82 mm (3.23 in)	66 mm (2.60 in)
Small	144 mm (5.67 in)	90 mm (3.54 in)	48 mm (1.89 in)	28 mm (1.10 in)	33 mm (1.30 in)	94 mm (3.70 in)	66 mm (2.60 in)

All mounting holes diameter: 5.2 mm x 8.2 mm (0.20 in x 0.32 in). 2 additional mounting holes for Large Transmitter:  $c_2 = 41$  mm (1.61 in);  $d_2 = 84$  mm (3.31 in)

### Dimensions flow tube

Nominal size	L	W	H	d1	d2	e
ID 1/4"	70 mm (2.76 in)	22 mm (0.87 in)	17 mm (0.67 in)	8.5 mm (0.33 in)	6.0 mm (0.24 in)	16.6 mm (0.65 in)
ID 3/8"	95 mm (3.74 in)	30 mm (1.18 in)	25 mm (0.98 in)	12.6 mm (0.50 in)	9.2 mm (0.36 in)	25.6 mm (1.01 in)
ID 1/2"	95 mm (3.74 in)	30 mm (1.18 in)	25 mm (0.98 in)	16.9 mm (0.67 in)	12.5 mm (0.49 in)	25.6 mm (1.01 in)
ID 3/4"	125 mm (4.92 in)	45 mm (1.77 in)	41 mm (1.61 in)	23.4 mm (0.92 in)	19.0 mm (0.75 in)	36.0 mm (1.42 in)
ID 1"	140 mm (5.51 in)	45 mm (1.77 in)	41 mm (1.61 in)	29.9 mm (1.18 in)	25.4 mm (1.00 in)	44.0 mm (1.73 in)

## Transmitter

0 F 9 . 4 0 5 0 . • 1 0

**Transmitter size**

S: Small  
M: Medium  
L: Large

## Flow tubes (Box of 10)

9 9 1 . 4 0 5 0 . • • •

**Flow tube bore**

064: 6.4 mm  
096: 9.6 mm  
127: 12.7 mm  
190: 19.0 mm  
254: 25.4 mm

FLEXMAG flowmeters are available for order in combination with 530, 630, 730 cased pumps and integrated into WMArchitect assemblies. Additional functionality when used in combination with En/Pn cased pumps. These products are not offered stand-alone.

Disclaimer: The information contained in this document is believed to be correct but Watson-Marlow Limited accepts no liability for any errors it contains and reserves the right to alter specifications without notice. It is the user's responsibility to ensure product suitability for use within their application. Watson-Marlow, BioTube and PureWeld XL are trademarks of Watson-Marlow Limited.



[wmfts.com/global](https://wmfts.com/global)  
10 July 2025