

## Transmitter specifications MAGX2



Measurable media	Conductive fluids
Min. media electrical conductivity	$\geq 5\mu\text{S/cm}$ or $\geq 20\mu\text{S/cm}$ for demineralized water
Flow range	0.1 to 10 m/s
Displayed values	Actual flow ( $\text{m}^3/\text{h}$ l/s, l/m, US.gal/min, UK.gal/min), volume ( $\text{m}^3$ , l, US.gal, UK.gal), positive, negative, total volume and auxiliary (clearable) volume, sensor temperature
Accuracy	$\pm 0.2\%$ (0.5 - 10 m/s) of actual value
Power supply	12-35 VDC, 90-250 VAC, including battery back-up option
Power consumption	Max. 15VA
Communication protocol	Modbus RTU can be used with all the communication modules i.e. RS232, RS485, USB, BLUETOOTH, TCP, Wi-Fi, M-Bus
Flow direction	Bi-directional measurement
Ambient temperature	-20°C to 60°C (-4°F to 140°F)
Display	LCD 128 x 64 px graphical, contrast setup
Controls	6 buttons + communication modules
Low flow cut-off	OFF, 0.5%, 1%, 2%, 5%, 10% of Flow Qn
Adjustable filter constant	1 -120 samples; default value is 15 samples
Max. electronics weight (including housing)	2kg
Housing material	Aluminium (powder coated)
Housing dimensions	$\varnothing$ 143 mm
Cable terminal	3+1xM16x1.5 IP68 cable glands
Electronics protection	IP68
Other features	Auto-diagnostics Multi-language options (English, Spanish, Russian, Ukrainian, Turkish, other languages possible) Indicative temperature measurement up to 150°C Test of excitation coils Empty pipe detection Zero flow adjustment Flow simulator Verification tool available
Excitation frequency	3.125 Hz or 6.25 Hz
Real time	Clock function for data-logging
Analogue outputs	Optionals: Current 4-20 mA, Pulse, Pulse 230
Analogue inputs	Optionals: Temperature, Pressure
Digital outputs (communication)	Optionals: USB, RS232, RS485, BLUETOOTH, TCP/IP, 3G/GPRS/GSM, Wi-Fi, M-Bus
Data logger	Micro SD card
Certification	EMC, ES, PED, IP68, WRAS, OIML R49, MID

## Sensor specifications MAGX2



Connection types	DIN, ANSI, JIS flanges. Other types on request
Flange	Carbon steel as standard. Dimensions according to DIN EN 1092-1, ASME B 16.5, JIS B 2239
Nominal size	10-1000 mm (1/2" - 40")
Maximum nominal pressure	PN 40/300 psi
Max.media temperature	70°C (158°F) for Hard Rubber liner, 130°C (266°F) for PTFE liner in remote version
Ambient temperature	-20 to 60°C (-4 to 140°F)
Sensor protection	Remote IP68 (NEMA 6)
Liner	Hard Rubber, PTFE, other material on request, WRAS approved material available for sizes up to DN600
Electrodes	Hastelloy C-276 as a standard, other materials on request
Measuring tube	Stainless steel 1.4301 dimensions according to EN 10027-2
Outer casing	Carbon steel (1.0036) as standard
External coating	Lacquered finish (anticorrosive)
Accessories options	Earthing rings for plastic and lined pipes
Coils resistance	100 $\Omega$
Other features	Earthing through 3 <sup>rd</sup> and 4 <sup>th</sup> electrode Self-cleaning electrodes

The MAGX2 MID version flowmeters (DN25 – DN300) are designed to measure, memorise and display the volume at metering conditions of water passing through the measurement transducer in the sense of the Directive 2014/32/EU of the European Parliament and of the Council of the harmonization of the laws of the Member States relating to the making available on the market of measuring instruments, as amended.

The MAGX2 OIML version flowmeters (DN25 – DN300) have been type tested and internationally proven and endorsed to the accuracy class 2 for cold and hot potable water meters – OIML R49-1 (Organisation Internationale de Métrologie Légale).

For OIML certificates, visit [https://www.oiml.org/en/oiml-cs/certificat\\_view](https://www.oiml.org/en/oiml-cs/certificat_view) and for MID certificates visit <http://typover.cmi.cz/index.pl?switchlang=2>

# Technical Drawing Data-Sheet IP68 Transmitter MAG X2

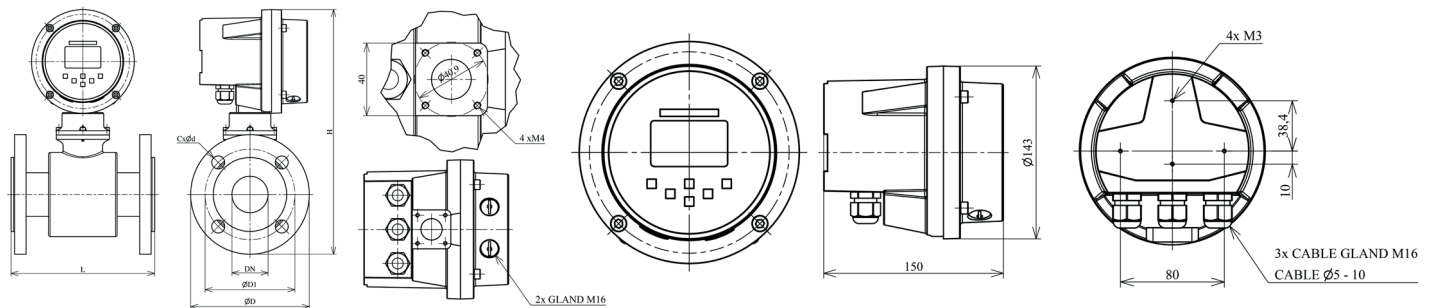
## DIN

DN	ØD	D1	CxØd	L	H-compact	H-remote
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
10	90	60	4x14	200	275	180
15	95	65	4x14	200	280	185
20	105	75	4x14	200	288	193
25	115	85	4x14	200	293	198
32	140	100	4x18	200	312	217
40	150	110	4x18	200	320	225
50	165	125	4x18	200	334	239
65	185	145	8x18	200	354	259
80	200	160	8x18	200	373	278
100	220	180	8x18	250	393	298
125	250	210	8x18	250	419	324
150	285	240	8x22	300	458	363
200	340	295	12x22	350	514	419
250	405	355	12x26	400	584	489
300	460	410	12x26	500	633	538
350	520	470	16x26	500	701	606
400	580	525	16x30	600	754	659
450	640	585	20x30	600	797	702
500	715	650	20x33	600	865	770
600	840	770	20x36	600	982	887

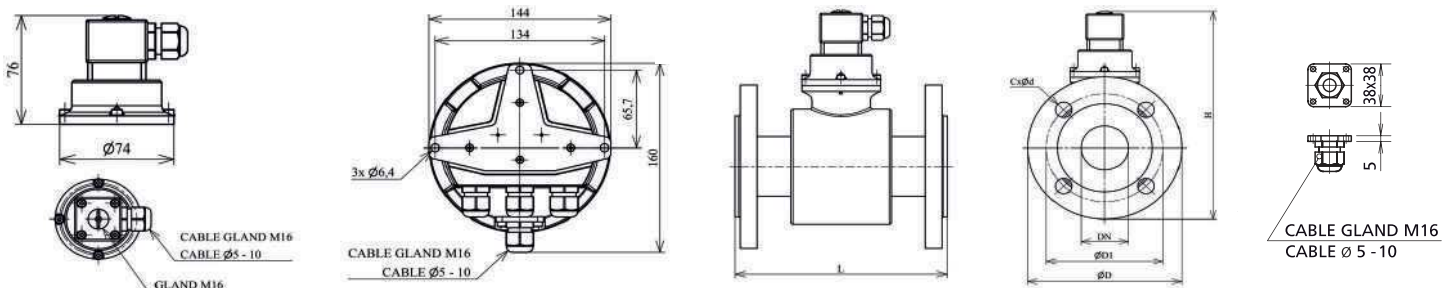
## ANSI

DN	ØD	D1	CxØd	L	H-compact	H-remote
	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
1/2"	88.9	60.5	4x15.7	200	277	182
3/4"	98.6	69.9	4x15.7	200	285	190
1"	108	79.2	4x15.7	200	290	195
1.1/4"	117.3	88.9	4x15.7	200	301	206
1.1/2"	127	98.6	4x15.7	200	309	214
2"	152.4	120.7	4x19.1	200	328	233
2.1/2"	177.8	139.7	4x19.1	200	350	255
3"	190.5	152.4	4x19.1	200	368	273
4"	228.6	190.5	8x19.1	250	397	302
5"	254	215.9	8x22.4	250	421	326
6"	279.4	241.3	8x22.4	300	455	360
8"	342.9	298.5	8x22.4	350	515	420
10"	406.4	362	12x25.4	400	584	489
12"	482.6	431.8	12x25.4	500	644	549
14"	533.4	476.3	12x28.4	500	708	613
16"	596.9	539.8	16x28.4	600	762	667
18"	635	577.9	16x31.8	600	795	700
20"	698.5	635	20x31.8	600	856	761
24"	812.8	749.3	20x35.1	600	968	873

### Compact version:



### Remote version:



Max. electronics weight (including housing)	2 kg
Housing material	Aluminium + powder coating
Housing dimensions	143mm
Cable terminal	3+1xM16x1.5 IP68 cable glands
Electronics protection	IP68 / NEMA 6

Tolerance of built-in length:  
 DN 10 – DN 150 L ± 5 mm  
 DN 200 – DN 1000 L ± 10 mm

Standard pressure:  
 DN 10 – DN 50 PN 40 / 150 lbs.  
 DN 65 – DN 150 PN 16 / 150 lbs.