

Electromagnetic Flowmeter

StaMag MF500 - Abrasion resistance

Introduction

With mixed liner material and electrodes specific designed for abrasion resistance, High performance MF500 is ideal for tough applications. Typical applications like medium with significant amount of solids, slurry etc.



Characteristics

10"...20" / DN250...DN500

Accuracy: 0.5%

Mixed material liner

Stable performance

Remote control and contact less operation pen

Bi-direction measurement.

Applications

Mechanical manufacturing

Mining

Oil field

Specifications

Size	10"...20" / DN250...DN500
Measuring range	0.33 - 33ft/s (0.1 - 10m/s)
Accuracy	0.5%; 1%
Repeatability	0.15% of reading
Operating voltage	85...265VAC 24VDC
Output signal	Pulse + 4...20mA Pulse + 4...20mA with HART Modbus RS485
Electrode material	Tungsten Carbide
Liner material	Mixed material liner
Body/flange material	Carbon steel Stainless steel
Medium Temperature	-4...212°F / -20...100°C
Ambient Temperature	Sensor: -40...80°C / -40...176°F Transmitter: -30...60°C / -22...140°F
Ambient Humidity	≤85%RH (20°C / 68°F)
Power consumption	Less than 20W
Electrical connection	M20×1.5
Grounding	Grounding ring, grounding electrode, pipe grounding
Exproof	Exd [ia Ga] qllcT5 Gb
Process connection	Flange
Protection class	Integrated type: IP65 Remote type: IP65(transmitter), IP68 (Sensor)

Features

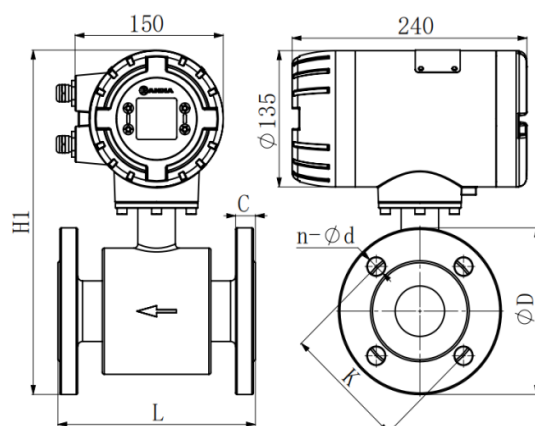
Auto "ZERO" calibration	See manual for details
Self-monitoring and diagnostic	Monitor citation circuit, electrode and transmitter malfunction
Empty and full pipe detection	Detect empty or full pipeline
Bi-directional measurement	Measuring both forward and reverse flow
Change flow direction real time	See manual for details
Flow rate unit selectable	gal/h, gal/min, m ³ /h, m ³ /min, l/h, l/m and more...
Low flow cut off	Adjustable in 0-10%, no pulse output for any signal less than settings.
Outputs selectable	4~20mA, 0 ~5KHz, pulse.
Display	Instantaneous flow rate in percentage, instantaneous flow rate and total flow rate.
Totalizer reset	See manual for details
Power supply selectable	DC: 24V or AC: 85V...265V

Measuring range

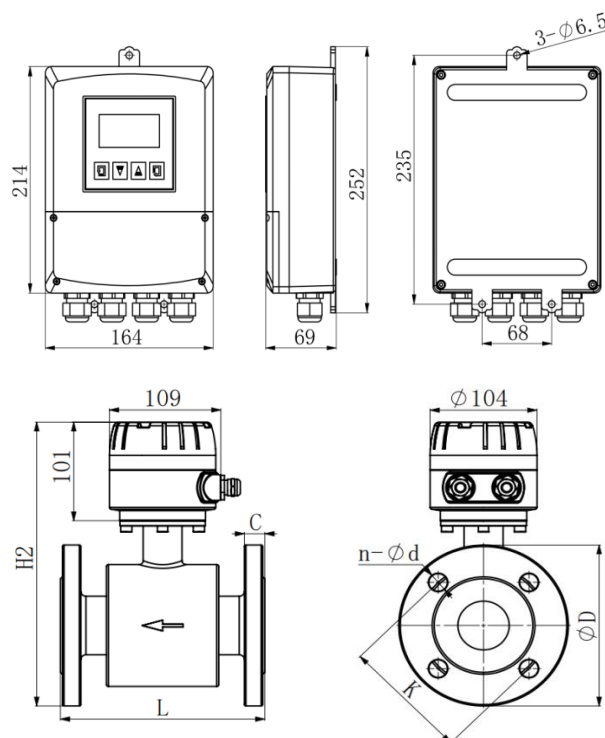
Pipe Size		Measurable Range	
Inch	DN	gal/min	m ³ /h
10	250	78...9323	17.7...2119
12	300	112...13428	25.5...3052
14	350	153...18277	34.6...4154
16	400	199...23870	45.3...5425
20	500	311...37303	71...8478

Dimensions in mm

Integrated transmitter



Remote transmitter



Flange ANSI Class 150 (ASME B16.5)

Inch	L	H1	H2	D	K	n-Ød	C	Pressure Rating
10"	450	573	548	405	362	12-Ø26	30.5	Class 150
12"	500	643	612	485	432	12-Ø26	32	
14"	550	693	669	535	476	12-Ø29.5	35	
16"	600	750	726	600	540	16-Ø29.5	37	
20"	650	861	836	700	635	20-Ø32.5	43	

Flange ANSI Class 300 (ASME B16.5)

Inch	L	H1	H2	D	K	n-Ød	C	Pressure Rating
10"	450	593	568	445	387.5	16-Ø29.5	48	Class 300
12"	500	660	636	520	451	16-Ø32.5	51	
14"	550	718	694	585	514.5	20-Ø32.5	54	
16"	600	775	751	650	571.5	20-Ø35.5	57.5	
20"	650	898	873	775	686	24-Ø35.5	63.5	

Flange EN 1092-1

DN	L	H1	H2	D	K	n-Ød	C	Pressure Rating
250	450	573	548	405	355	12-Ø26	28	PN16
300	500	630	606	460	410	12-Ø26	32	
350	550	685	661	520	470	16-Ø26	35	
400	600	740	716	580	525	16-Ø30	38	
500	650	868	843	715	650	20-Ø33	46	

Order Code

Example: MF500-F300ABTCSC5DP0FA150

1. MF500-

F	Integral transmitter
R	Remote transmitter

2. Pipe size

250	10" (DN250)
300	12" (DN300)
350	14" (DN350)
400	16" (DN400)
500	20" (DN500)

3. Output

A	Pulse 4-20mA
H	Pulse 4-20mA with HART
R	Modbus RS485

4. Accuracy

B	0.5%
C	1%

5. Electrode material

TC	Tungsten Carbide
S	Other material on request

6. Liner material

S	Mixed material
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7. Body material

C	Carbon steel
S	304 stainless steel
L	316L stainless steel

8. Protection class

5	IP65
8	IP68 (Remote version only)

9. Power supply

D	24VDC
T	85...265VAC

10. Ex-proof

P	Non-hazardous area
E	Hazardous area

11. Connectivity from Sensor to Remote Transmitter

0	Select 0 for integral transmitter
5	Cable length: 5m / 16ft Custom cable length: 2-50m (6.5...164ft)

12. Process connection

FA150	Flange: ANSI Class 150 (ASME B16.5)
FA300	Flange: ANSI Class 300 (ASME B16.5)
FU	Flange: EN 1092-1 (PN16)
S	Other connection / pressure rating on request