



ALMAG

Electromagnetic Flowmeter Model ALMAGWP Series

GENERAL

The ALMAGWP is an inline-type electromagnetic flowmeter with flanged connections. This versatile flow sensor is available for nominal pipe sizes ranging from ½" through 80" and can detect fluid velocities ranging from less than 0.1 mps to 10 mps. The ALMAGWP comes with an easy to read OLED display and is available with a wide variety of options including AC or DC power, local or remote display, RS485 HART, and Profibus communications or relay outputs. This broad array of options makes the ALMAGWP an excellent choice for measuring conductive fluid flow rates in many applications and industries including food & beverage, pulp & paper and industrial process control.



FEATURES

- Various liner materials are available to satisfy nearly all industrial applications
- Wide fluid velocity range of 0-32 ft/sec with excellent low-flow accuracy
- Flange-type process connections available in ANSI, DIN, and JIS style
- Optional 5 Amp, form C reley contacts allow high power loads to be controlled directly from the meter
- Optional IP68 environmental protection class (submersible)
- Easy-to-read OLED display; visible in low light environments and in direct sunlight, no backlighting necessary
- Excellent accuracy; ± 0.5% of reading standard, ±0.3% of reading optional
- Upright/reverse flowrate test function standard with every unit

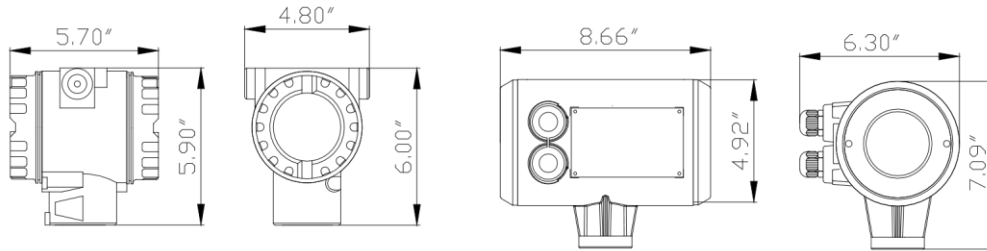
SPECIFICATIONS

- Size : ½"-80" (DN15~DN2000)
- Measuring Range : 0.32 ft/s (0.1 m/s) min. fluid velocity
33 ft/s (10 m/s) max.
- Material
 - Communication : HART, RS485/Modbus, Profibus-DP
 - Electrode & Grounding : Stainless Steel 316L
Nickel
Hastelloy C
Titanium
Tantalum
- Measuring Tube : Stainless Steel 304
- Flange material : Carbon Steel(standard)
Stainless Steel 304(Optional)
- Stainless steel 316(Optional)Ambient
- Coil Housing : Carbon Steel(standard)
Stainless Steel 304(Optional)Process Connection
Stainless steel 316(Optional)
- Liner : Chloroprene Rubber(Neoprene)
Polyurethane
PTFE
- F46Grounding Resistance : < 10 Ω
- PFAAccuracy: +/-0.5% of reading(Velocity>=0.5 m/s)
- Temperature : -5 to +130 °F (-20 ~ 55 °C)
- Flanges type : Flanged
Standard ANSI 150#
Options : JIS 10K / JIS 20K / JIS 40K
ANSI 300# / ANSI 600#
DIN PN 10 / PN 16 / PN25 / PN 40
- Protection : IP65
IP68 (remote type only)
- Conductivity : ≥ 5 μS/cm
- Power requirements : 110-240V_{AC} or 16-36 V_{DC}
- Outputs : 4-20mA, pulse, (2) open collector switches
or (2) Form C, 5 Amp relay contacts
- Temperature : 14 ~ 140 °F (Polyurethane)
-5 ~ 160 °F (Neoprene)
-40 ~ 356 °F (PFA)
-40 ~ 356 °F (PTFE)

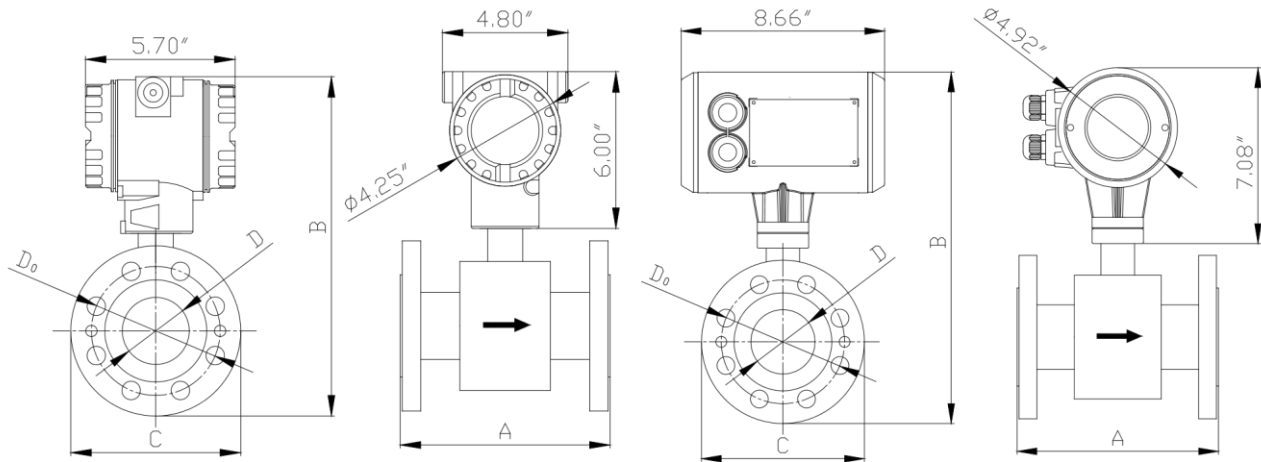
+/-0.005 m/s(Velocity < 0.5 m/s)



● TRANSMITTER



● FLOWMETER



INTEGRAL TYPE DIMENSIONS

Nom. Pipe Diameter - in. (mm)	Rated pressure psig (bar)	Instrument outline dimension inches (mm)			Flange connection dimension inches (mm)			Weight lbs. (kg)
		a	b	c	D	D0	nxA	
3/8" (10)	580 (40)	7.87 (200)	12.60 (320)	3.54 (90)	3/8" (10)	2.36 (60)	4 x 0.55 (14)	13.25 (6)
1/2" (15)	580 (40)	7.87 (200)	12.67 (322)	3.74 (95)	1/2" (15)	2.56 (65)	4 x 0.55 (14)	13.25 (6)
3/4" (20)	580 (40)	7.87 (200)	12.87 (327)	4.13 (105)	3/4" (20)	2.95 (75)	4 x 0.55 (14)	13.25 (6)
1" (25)	580 (40)	7.87 (200)	13.26 (337)	4.52 (115)	1" (25)	3.35 (85)	4 x 0.55 (14)	15.5 (7)
1 1/4" (32)	580 (40)	7.87 (200)	13.78 (350)	5.51 (140)	1 1/4" (32)	3.94 (100)	4 x 0.71 (18)	20 (9)
1 1/2" (40)	580 (40)	7.87 (200)	13.94 (354)	5.90 (150)	1 1/2" (40)	4.33 (110)	4 x 0.71 (18)	22 (10)
2" (50)	580 (40)	7.87 (200)	14.80 (376)	6.50 (165)	2" (50)	4.92 (125)	4 x 0.71 (18)	26.5 (12)
2 1/2" (65)	580 (40)	7.87 (200)	15.20 (386)	7.28 (185)	2 1/2" (65)	5.71 (145)	4 x 0.71 (18)	37.5 (17)
3" (80)	580 (40)	7.87 (200)	16.18 (411)	7.87 (200)	3" (80)	6.30 (160)	8 x 0.71 (18)	37.5 (17)
4" (100)	230 (16)	9.85 (250)	16.97 (431)	8.67 (220)	4" (100)	7.09 (180)	8 x 0.71 (18)	48.5 (22)
5" (125)	230 (16)	9.85 (250)	17.51 (445)	9.84 (250)	5" (125)	8.27 (210)	8 x 0.71 (18)	53 (24)
6" (150)	230 (16)	11.81 (300)	19.33 (491)	11.22 (285)	6" (150)	9.45 (240)	8 x 0.87 (22)	77.25 (35)
8" (200)	145 (10)	13.78 (350)	21.65 (550)	13.38 (340)	8" (200)	11.61 (295)	8 x 0.87 (22)	99.25 (45)
10" (250)	145 (10)	15.75 (400)	22.83 (580)	15.55 (395)	10" (250)	13.78 (350)	12 x 0.87 (22)	185 (84)
12" (300)	145 (10)	19.68 (500)	25.31 (643)	17.52 (445)	12" (300)	15.75 (400)	12 x 0.87 (22)	225 (102)
14" (350)	145 (10)	19.68 (500)	27.72 (704)	19.88 (505)	14" (350)	18.11 (460)	16 x 0.87 (22)	271 (123)
16" (400)	145 (10)	23.62 (600)	30.08 (764)	22.25 (565)	16" (400)	20.28 (515)	16 x 1.02 (26)	324 (147)

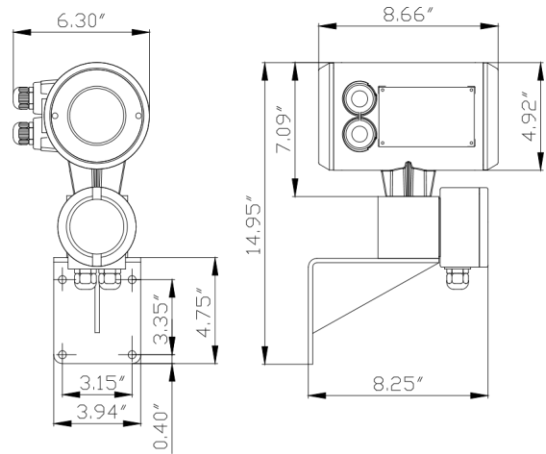
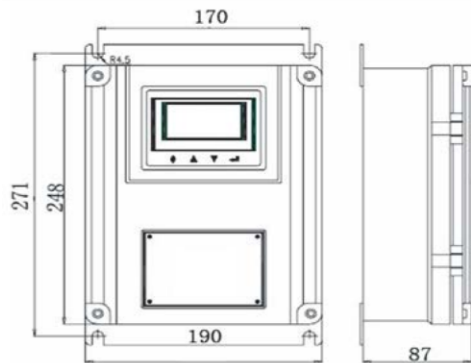
18" (450)	145 (10)	23.62 (600)	32.05 (814)	24.21 (615)	18" (450)	22.25 (565)	20 x 1.02 (26)	467 (212)
20" (500)	145 (10)	23.62 (600)	33.86 (860)	26.37 (670)	20" (500)	22.40 (620)	20 x 1.02 (26)	461 (209)
24" (600)	145 (10)	23.62 (600)	38.11 (968) 42.40 (1077)	30.71 (780)	24" (600)	28.54 (725)	20 x 1.18 (30)	556 (252)
28" (700)	145 (10)	27.56 (700)	(1077)46.77	35.25 (895)	28" (700)	33.07 (840)	24 x 1.18 (30)	776 (352)
32" (800)	145 (10)	31.50 (800)	(1188)	39.96 (1015)	32" (800)	37.40 (950)	24 x 1.37 (35)	1018 (462)

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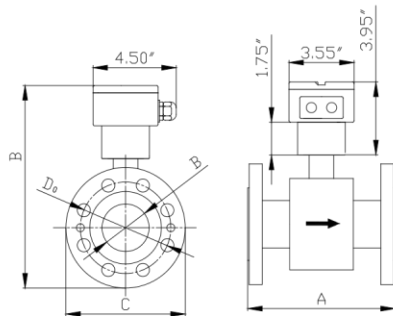
Electromagnetic Flowmeter

7 REMOTE TYPE DIMENSIONS

● TRANSMITTER



● FLOWMETER



Nom. Pipe Diameter - in. (mm)	Rated pressure psig (bar)	Instrument outline dimension inches (mm)			Flange connection dimension inches (mm)			Weight (kg)
		a	b	c	D	D0	nxA	
3/8" (10)	580 (40)	7.87 (200)	7.36 (187)	3.54 (90)	3/8" (10)	2.36 (60)	4 x 0.55 (14)	8.75 (4)
1/2" (15)	580 (40)	7.87 (200)	7.44 (189)	3.74 (95)	1/2" (15)	2.56 (65)	4 x 0.55 (14)	8.75 (4)
3/4" (20)	580 (40)	7.87 (200)	7.64 (194)	4.13 (105)	3/4" (20)	2.95 (75)	4 x 0.55 (14)	8.75 (4)
1" (25)	580 (40)	7.87 (200)	8.03 (204)	4.52 (115)	1" (25)	3.35 (85)	4 x 0.55 (14)	11 (5)
1 1/4" (32)	580 (40)	7.87 (200)	8.50 (216)	5.51 (140)	1 1/4" (32)	3.94 (100)	4 x 0.71 (18)	15.5 (7)
1 1/2" (40)	580 (40)	7.87 (200)	8.70 (221)	5.90 (150)	1 1/2" (40)	4.33 (110)	4 x 0.71 (18)	17.75 (8)
2" (50)	580 (40)	7.87 (200)	9.57 (243)	6.50 (165)	2" (50)	4.92 (125)	4 x 0.71 (18)	22 (10)
2 1/2" (65)	580 (40)	7.87 (200)	9.96 (253)	7.28 (185)	2 1/2" (65)	5.71 (145)	4 x 0.71 (18)	33 (15)
3" (80)	580 (40)	7.87 (200)	10.94 (278)	7.87 (200)	3" (80)	6.30 (160)	8 x 0.71 (18)	33 (15)
4" (100)	230 (16)	9.85 (250)	11.73 (298)	8.67 (220)	4" (100)	7.09 (180)	8 x 0.71 (18)	44 (20)
5" (125)	230 (16)	9.85 (250)	12.50 (318)	9.84 (250)	5" (125)	8.27 (210)	8 x 0.71 (18)	48.50 (22)
6" (150)	230 (16)	11.81 (300)	14.09 (358)	11.22 (285)	6" (150)	9.45 (240)	8 x 0.87 (22)	72.75 (33)
8" (200)	145 (10)	13.78 (350)	16.37 (416)	13.38 (340)	8" (200)	11.61 (295)	8 x 0.87 (22)	95 (43)
10" (250)	145 (10)	15.75 (400)	19.29 (490)	15.55 (395)	10" (250)	13.78 (350)	12 x 0.87 (22)	181 (82)
12" (300)	145 (10)	19.68 (500)	20.08 (510)	17.52 (445)	12" (300)	15.75 (400)	12 x 0.87 (22)	220.5 (100)
14" (350)	145 (10)	19.68 (500)	22.48 (571)	19.88 (505)	14" (350)	18.11 (460)	16 x 0.87 (22)	226.75 (121)

16" (400)	145 (10)	23.62 (600)	24.84 (631)	22.25 (565)	16" (400)	20.28 (515)	16 × 1.02 (26)	320 (145)
18' (450)	145 (10)	23.62 (600)	26.81 (681)	24.21 (615)	18' (450)	22.25 (565)	20 × 1.02 (26)	463 (210)
20" (500)	145 (10)	23.62 (600)	28.75 (730)	26.37 (670)	20" (500)	22.40 (620)	20 × 1.02 (26)	456 (207)
24" (600)	145 (10)	23.62 (600)	32.91 (836)	30.71 (780)	24" (600)	28.54 (725)	20 × 1.18 (30)	551 (250)
28" (700)	145 (10)	27.56 (700)	37.16 (944)	35.25 (895)	28" (700)	33.07 (840)	24 × 1.18 (30)	772 (350)
32" (800)	145 (10)	31.50 (800)	41.54 (1055)	39.96 (1015)	32" (800)	37.40 (950)	24 × 1.37 (35)	1014 (460)
36" (900)	145 (10)	35.43 (900)	46.06 (1170)	43.90 (1115)	36" (900)	41.33 (1050)	28 × 1.37 (35)	1213 (550)
40" (1000)	145 (10)	39.37 (1000)	50.39 (1280)	48.43 (1230)	40" (1000)	45.67 (1160)	28 × 1.37 (35)	1500 (680)
48" (1200)	87 (6)	47.25 (1200)	57.48 (1460)	55.31 (1405)	48" (1200)	52.75 (1340)	32 × 1.37 (35)	1698 (770)
56" (1400)	87 (6)	55.12 (1400)	71.77 (1823)	60.00 (1524)	56" (1400)	61.41 (1560)	36 × 1.42 (36)	2712 (1230)
64" (1600)	87 (6)	63.00 (1600)	80.04 (2033)	67.95 (1726)	64" (1600)	69.30 (1760)	40 × 1.42 (36)	3417 (1550)
72" (1800)	87 (6)	70.87 (1800)	87.67 (2227)	75.83 (1926)	72" (1800)	77.65 (1970)	44 × 1.54 (39)	4586 (2080)
80" (2000)	87 (6)	78.75 (2000)	95.59 (2428)	85.43 (2170)	80" (2000)	85.83 (2180)	48 × 1.65 (42)	5732 (2600)

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Electromagnetic Flowmeter ALMAGWP

**** Please contact your local SMC application engineer**

You also need to provide the following information:

Type of Fluid	Please specify the name of your fluid media, the operating PH, and conductivity.
Full Scale Flow	Maximum and minimum flow rates should be specified in units of Lb/hr, GPM or LPM
Line Size	Please state nominal pipe size as well process connection type (flange, threaded, etc..)
Pressure & Temperature	We will calibrate your flowmeter as close to your operating conditions as possible

Model Selection Guide

ALMAGWP Series															
Example: ALMAGWP-F100-03-IN-1.6-67-0-DC-0-NX-NN-NN															
ALMAGWP-	*_	**_	*	*_	*	*_	*	*_	*	*_	*	*_	**_	**	Description
Flanged	F													Type	
Sanitary	S														
Wafer	W														
%½"~80" (DN10~DN2000)		**													Size
316 stainless steel			0												Electrode
Nickel			1												
Hastalloy C			2												
Tantalum			2												
Titanium			4												
Ceramic			5												
Chloroprene Rubber(Neoprene)			3												Liner material
PTFE			5												
PFA			6												
F46			7												
Ceramic			C												
Integral type				IN											Transmitter
Remote type - with 15m cable				RE											
Max Pressure 2.5Mpa with flanges (DN25~100)				2.5											Pressure (up to 10Mpa available please contact the factory)
Max Pressure 1.6Mpa with flanges (DN125~250)				1.6											
Max Pressure 1.0Mpa with flanges (DN300~1000)				1.0											
Max Pressure 0.6Mpa with flanges (DN1200~2000)				0.6											
IP65				65											Protection
IP68 (Submersible, remote type only)				68											

Not Needed	0				
Grounding electrode	1				Grounding rings
S.S. #304 grounding ring	2				
16~36 V _{DC}		DC			Power supply
85~265V _{AC} , 50/60 Hz		AC			
No communication protocol			0		Communication
HART			1		
RS485 - Modbus			2		
RS485 - Profibus DP			3		
None				NX	Approvals
Explosion Proof - for integral type				EX	
Explosion Proof - for remote type				EXR	
Aluminium enclosure, SS #304 flow tube, carbon steel coil housing and flanges				NN	Material
Aluminium enclosure, SS #304 flow tube & coil housing, carbon steel flanges				C304	
Aluminium enclosure, SS #304 flow tube, coil housing, and flange				304	
None				NN	Options
With mating carbon steel installation flange				IF	