



# 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"~120" (DN15~DN3000)  | ● Communication         | : HART, RS485/Modbus, Profibus-DP   |
| ● Measuring Range    | : 0.32 ft/s (0.1 m/s) min. fluid velocity<br>33 ft/s (10 m/s) max.   | ● Electrode & Grounding | : Stainless Steel 316L<br>Nickel<br>Hastelloy C<br>Titanium<br>Tantalum   |
| ● Material           | Measuring Tube : Stainless Steel #304<br>Flange material : Carbon Steel(standard)<br>Stainless Steel #304(Optional)<br>Stainless steel #316(Optional)<br>Coil Housing : Carbon Steel(standard)<br>Stainless Steel #304(Optional)<br>Stainless steel #316(Optional) | ● Ambient Temperature   | : -5 to +130 °F (-20 ~ 55 °C)   |
| ● Liner              | : Chloroprene Rubber(Neoprene)<br>Polyurethane<br>PTFE<br>F46<br>PFA   | ● Process Connection    | : Flanged<br>Flange types : Standard ANSI 150#<br>Options : JIS 10K / JIS 20K / JIS 40K<br>ANSI 300# / ANSI 600#<br>DIN PN 10 / PN 16 / PN25 / PN 40  |
| ● Protection         | : IP65<br>IP68 (remote type only)  | ● Grounding Resistance  | : < 10 Ω  |
| ● Conductivity       | : ≥ 5 μS/cm  | ● Accuracy              | : ±0.5% of reading(Velocity ≥ 0.5 m/s)<br>±0.005 m/s(Velocity < 0.5 m/s)  |
| ● Power requirements | : 110-240V <sub>AC</sub> or 16-36 V <sub>DC</sub>  | ● Temperature           | : 14 ~ 140 °F (-10~60 °C) - Polyurethane<br>-5 ~ 160 °F (-20~71 °C) - Neoprene<br>-40 ~ 356 °F (-40~180 °C) - PFA<br>-40 ~ 356 °F (-40~180 °C) - PTFE |
| ● Outputs            | : 4-20mA, pulse, (2) open collector switches<br>or (2) Form C, 5 Amp relay contacts (optional)   |                         |   |

### SmartMeasurement

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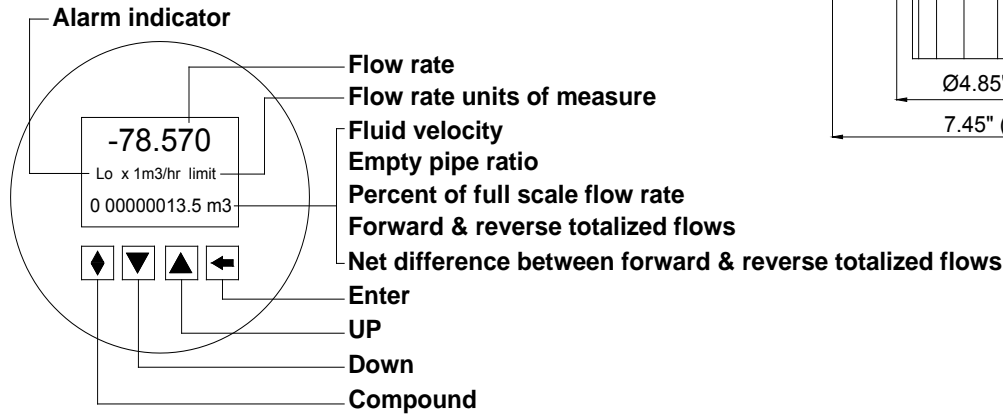
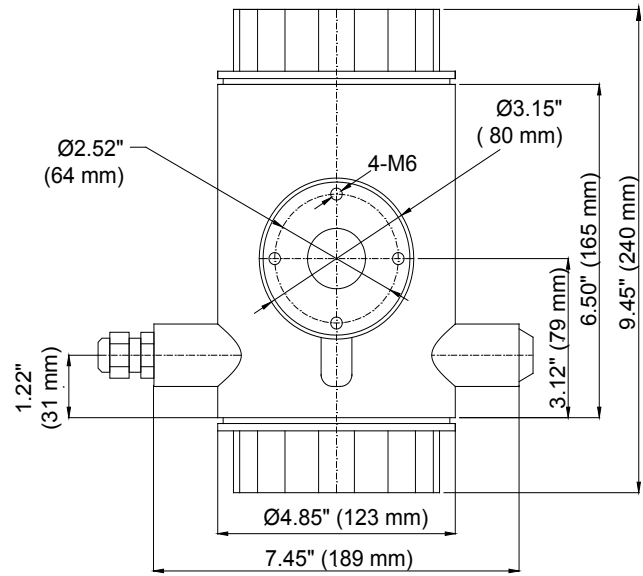
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URL : <http://www.smartmeasurement.com>

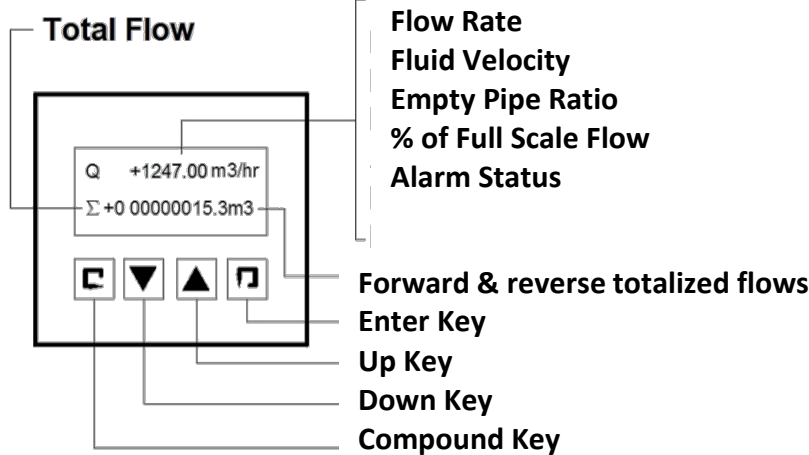
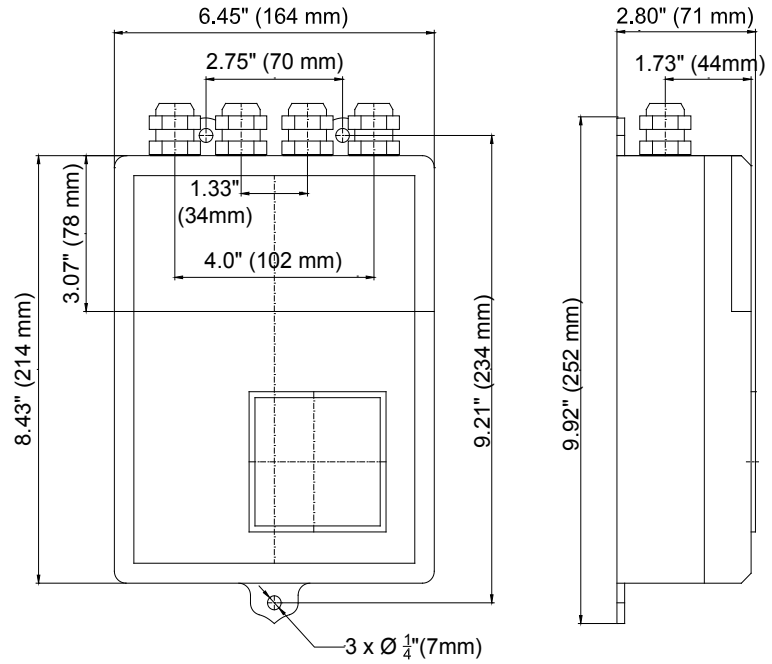
E-mail: [sales@smartmeasurement.com](mailto:sales@smartmeasurement.com)

➤ Mounting

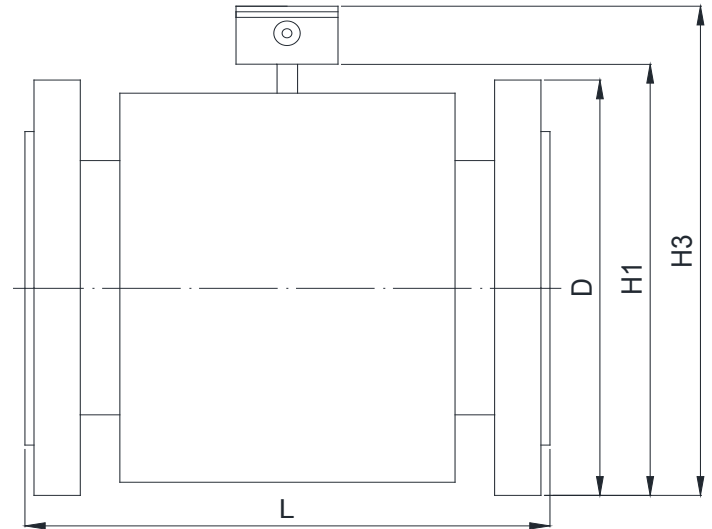
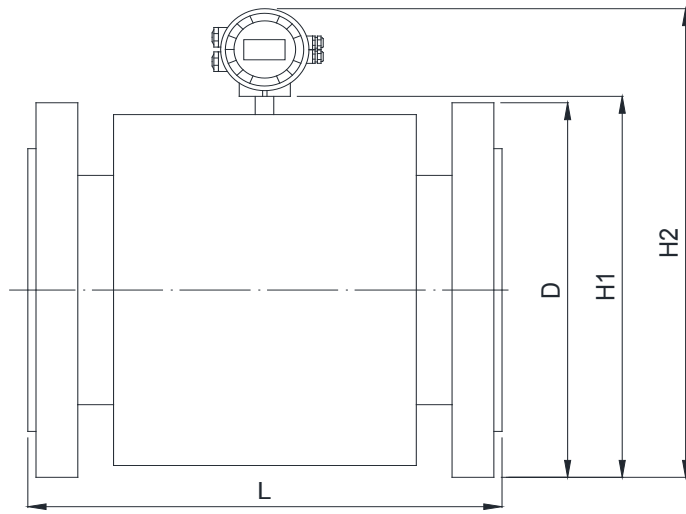
● Standard Integral type



● Standard Remote type



➤ DIMENSIONS - Inline - ANSI and DIN Flanges



Nominal Diameter	Max pressure psi (MPa)	Dimensions - Inches (mm)					Weight - lbs (kg)	
		L	D	H1	H2	H3	Integral	Remote
½" (15 mm)	362 psi (2.5MPa)	7.87 (200)	3.74 (95)	6.10 (155)	11.22 (285)	8.46 (215)	12 (5.5)	8 (3.5)
¾" (20 mm)		7.87 (200)	4.13 (105)	6.30 (160)	11.42 (290)	8.66 (220)	14 (6.5)	10 (4.5)
1" (25 mm)		7.87 (200)	4.53 (115)	6.50 (165)	11.61 (295)	8.86 (225)	15 (7)	11 (5)
1¼" (32 mm)		7.87 (200)	5.50 (140)	7.09 (180)	12.20 (310)	9.45 (240)	19 (8.5)	14 (6.5)
1½" (40 mm)		7.87 (200)	5.91 (150)	7.48 (190)	12.60 (320)	9.84 (250)	20 (9)	15 (7)
2" (50 mm)		7.87 (200)	6.50 (165)	7.87 (200)	13.00 (330)	10.25 (260)	24 (11)	20 (9)
2½" (65 mm)		9.85 (250)	7.28 (185)	8.66 (220)	13.78 (350)	11.02 (280)	29 (13)	24 (11)
3" (80 mm)		9.85 (250)	7.87 (200)	9.45 (240)	14.57 (370)	11.81 (300)	33 (15)	29 (13)
4" (100 mm)	232 psi (1.6 MPa)	9.85 (250)	8.66 (220)	9.84 (250)	14.96 (380)	12.20 (310)	38 (17)	33 (15)
5" (125 mm)		9.85 (250)	9.84 (250)	11.02 (280)	16.14 (410)	13.39 (340)	46 (21)	42 (19)
6" (150 mm)		11.81 (300)	11.22 (285)	12.60 (320)	17.72 (450)	14.96 (380)	57 (26)	53 (24)
8" (200 mm)	145 psi (1.0 Mpa)	13.78 (350)	13.39 (340)	14.96 (380)	20.08 (510)	17.32 (440)	75 (34)	71 (32)
10" (250 mm)		17.72 (450)	15.55 (395)	16.93 (430)	22.05 (560)	19.29 (490)	108 (49)	104 (47)
12" (300 mm)		19.68 (500)	17.50 (445)	19.29 (490)	24.41 (620)	21.65 (550)	130 (59)	126 (57)
14" (350 mm)		19.68 (500)	19.88 (505)	21.65 (550)	26.77 (680)	24.00 (610)	154 (70)	150 (68)
16" (400 mm)		19.68 (500)	22.25 (565)	23.62 (600)	28.75 (730)	26.00 (660)	192 (87)	187 (85)
18" (450 mm)		21.65 (550)	24.21 (615)	25.20 (640)	30.31 (770)	27.56 (700)	225 (102)	220 (100)
20" (500 mm)		21.65 (550)	26.38 (670)	27.56 (700)	32.68 (830)	29.92 (760)	269 (122)	265 (120)
24" (600 mm)		23.62 (600)	30.71 (780)	31.50 (800)	36.61 (930)	33.86 (860)	357 (162)	353 (160)
28" (700 mm)	87 psi (0.6 Mpa)	27.56 (700)	33.86 (860)	33.86 (860)	38.92 (990)	36.22 (920)	677 (307)	672 (305)
32" (800 mm)		31.50 (800)	38.39 (975)	38.39 (975)	43.50 (1105)	40.75 (1035)	919 (417)	915 (415)
36" (900 mm)		35.43 (900)	42.32 (1075)	42.32 (1075)	47.44 (1205)	44.69 (1135)	1162 (527)	1157 (525)
40" (1000 mm)		39.37 (1000)	46.25 (1175)	46.25 (1175)	51.38 (1305)	48.62 (1235)	1503 (682)	1500 (680)
48" (1200 mm)		47.25 (1200)	55.31 (1405)	55.31 (1405)	60.43 (1535)	57.68 (1465)	1646 (747)	1642 (745)
56" (1400 mm)		55.12 (1400)	64.17 (1630)	64.17 (1630)	69.29 (1760)	66.54 (1690)	2440 (1107)	2435 (1105)
64" (1600 mm)		63.00 (1600)	72.05 (1830)	72.05 (1830)	77.17 (1960)	74.41 (1890)	3145 (1427)	3141 (1425)
72" (1800 mm)		70.87 (1800)	80.50 (2045)	80.50 (2045)	85.63 (2175)	82.87 (2105)	4313 (1957)	4309 (1955)
80" (2000 mm)		78.75 (2000)	89.17 (2265)	89.17 (2265)	94.29 (2395)	91.54 (2325)	5470 (2482)	5466 (2480)
88" (2200 mm)		86.61 (2200)	97.44 (2475)	97.44 (2475)	102.5 (2605)	99.8 (2535)	6793 (3082)	6788 (3080)
96" (2400 mm)		94.50 (2400)	105.7 (2685)	105.7 (2685)	110.8 (2815)	108.1 (2745)	8336 (3782)	8331 (3780)
104" (2600 mm)		102.3 (2600)	114.4 (2905)	114.4 (2905)	119.5 (3035)	116.7 (2965)	9151 (4152)	9147 (4150)
112" (2800 mm)	110.3 (2800)	122.6 (3115)	122.6 (3115)	127.8 (3245)	125 (3175)	10738 (4872)	10734 (4870)	
120" (3000 mm)	118.1 (3000)	130.5 (3315)	130.5 (3315)	135.6 (3445)	132.9 (3375)	12060 (5472)	12056 (5470)	

\*\* Flanges for 28" diameter and greater conform to ANSI B16.47 Series B, 150# Class

**\*\* Please contact your local Smart Measurement 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 MPH, GPM, LPM, etc.
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-F-50-0-3-IN-2.5-65-0-DC-0-EXI-NN-NN														
ALMAGWP-	*_	*	*_	*	*_	*	*_	*	*_	*	*_	**_	**	Description
Flange type	F													Connection
Wafer type	W													
Ceramic - 4Mpa	C													
Sanitary type	S													
15-3000mm ( 1/2" through 120")	**													Size
316 stainless steel	0													Electrode
Nickel	1													
Hastelloy C	2													
Tan	3													
Ti	4													
Ceramic	C													
Chloroprene Rubber(Neoprene)	3													Liner material
PO	4													
PTFE	5													
PFA	6													
F46	7													
Ceramic	C													
Integral type	IN													Transmitter
Remote type - with 5m cable	RE													
Max Pressure 2.5Mpa with flanges up to DN80	2.5													Pressure
Max Pressure 1.6Mpa with flanges up to DN150	1.6													
Max Pressure 1.0Mpa with flanges up to DN900	1.0													
Max Pressure 0.6Mpa with flanges up to DN2000	0.6													
IP65 or IP67	65													Protection
IP68 flow body and IP65 transmitter, only for remote type	68													
Not Needed	0													Grounding rings
Grounding electrode	1													
304SS grounding ring	2													
11-40 V <sub>DC</sub>	DC													Power supply
85~265 V <sub>AC</sub> , 50/60 Hz	AC													
Non communication	0													Communication
HART	1													
RS485 - Modbus	2													
RS485 - Profibus DP	3													
None	NX													Explosion proof
Explosion Proof - for integral type	EXD													
Explosion Proof - for remote type	EXR													
Aluminum Enclosure, SS #304 flow tube, carbon steel coil housing and flanges	NN													Materials
Aluminum Enclosure, SS #304 flow tube, carbon steel coil housing and SS #304 flanges	C304													
Aluminum Enclosure, SS #304 flow tube, coil housing and flanges	304													
None	NN													Options
With carbon steel mating flange	IF													