



# ALMAG-WP

## Electromagnetic Flowmeter

### Model ALMAGWP Series

## GENERAL

SMARTMEASUREMENT's ALMAGWP is an inline-type electromagnetic flowmeter with flanged connections. This versatile flow sensor is available for nominal pipe sizes ranging from 3/8" 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 ALMGWP 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 0-39 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;  $\pm 0.5\%$  of reading standard,  $\pm 0.2\%$  of reading optional
- Upright/reverse flowrate test function standard with every unit.

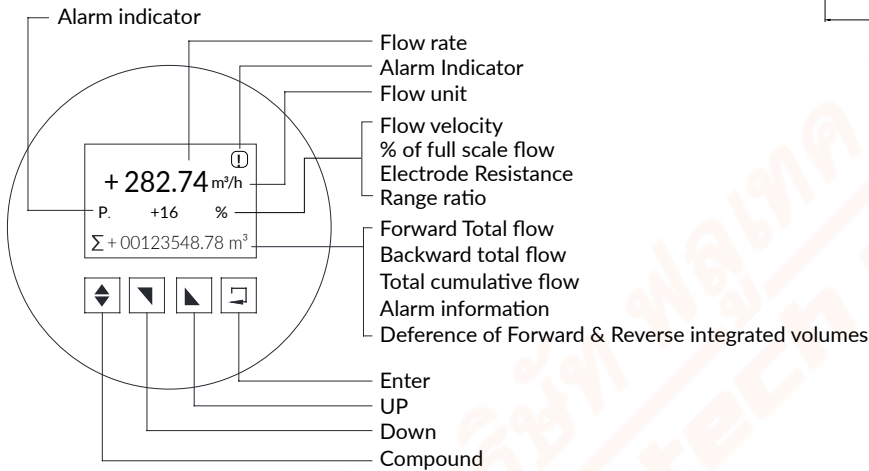
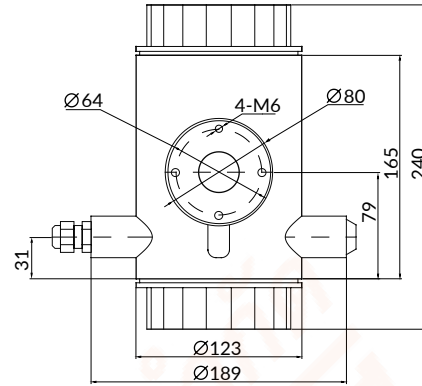
## SPECIFICATIONS

- Size: 3/8"~80" (DN15~DN2000)
- Measuring Range: 0.32ft/s (0.1m/s) min. fluid velocity  
39 ft/s (12 m/s) max.
- Material:
  - Measuring Tube: Stainless Steel #304
  - Flange material: Carbon Steel (standard)  
Stainless Steel 304(Optional)  
Stainless Steel 316(Optional)
- Coil Housing: Carbon Steel (standard)  
Stainless Steel #304 (optional)  
Stainless steel #316 (optional)
- Liner: Chloroprene Rubber(Neoprene)  
Polyurethane, Hard Rubber(Ebanite)  
PTFE, F46, PFA
- Protection: IP65  
IP68 (remote type only)
- Conductivity:  $\geq 5 \mu\text{S/cm}$
- Power Requirements: 110-240V<sub>AC</sub> or 16-36 V<sub>DC</sub>
- Outputs: 4-20mA, pulse,  
(2) open collector switches or  
(2) Form C, 5 Amp relay contacts
- Communication: HART  
RS485/Modbus  
Profibus-DP
- Electrode & Grounding: Stainless Steel 316L  
Nickel  
Hastelloy C  
Titanium  
Tantalum
- Ambient Temperature: -5 ~ +130 °F (-20 ~ 55 °C)
- Process Connection: Flanged  
Flange types: Standard ANSI 150#  
Options: JIS 10K / JIS 20K / JIS 40K  
ANSI 300# / ANSI 600#  
DIN PN10 / PN16 / PN25 / PN40
- Grounding Resistance: < 10  $\Omega$
- Accuracy:  $\pm 0.5\%$  of reading (Velocity  $\geq 0.5$  m/s)  
 $\pm 0.005$  m/s (Velocity < 0.5 m/s)
- Temperature: 14~140 °F (-10~60 °C) - Polyurethane  
-5~160 °F (-20~71 °C) - Neoprene  
-40~356 °F (-40~180 °C) - PFA  
-40~356 °F (-40~180 °C) - PTFE

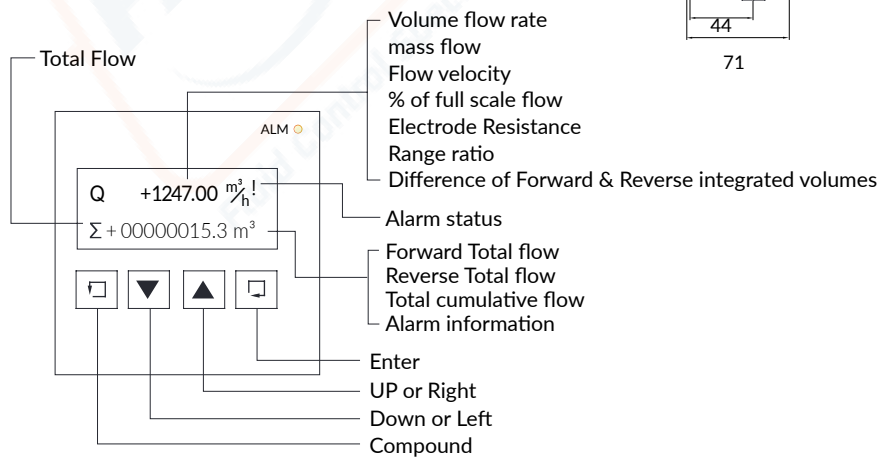
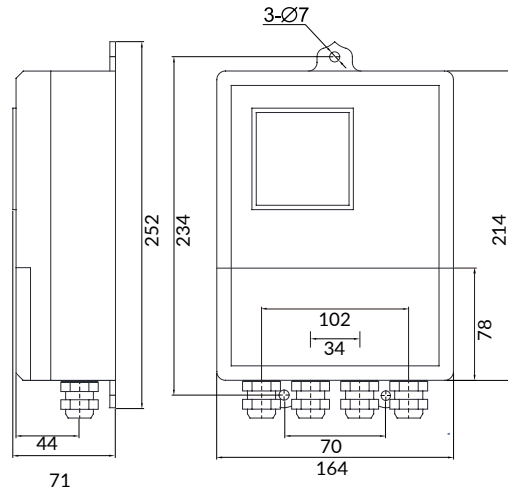


# MOUNTING DRAWING

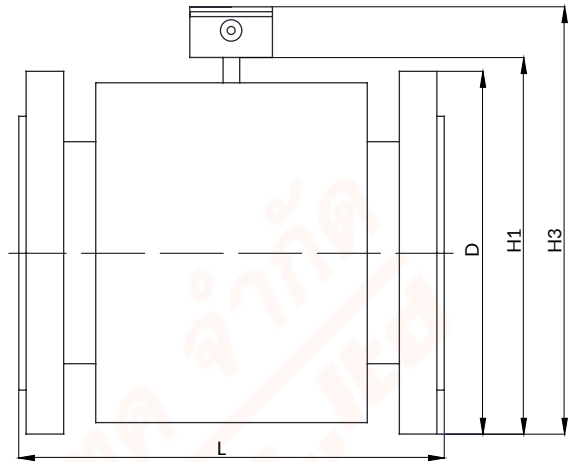
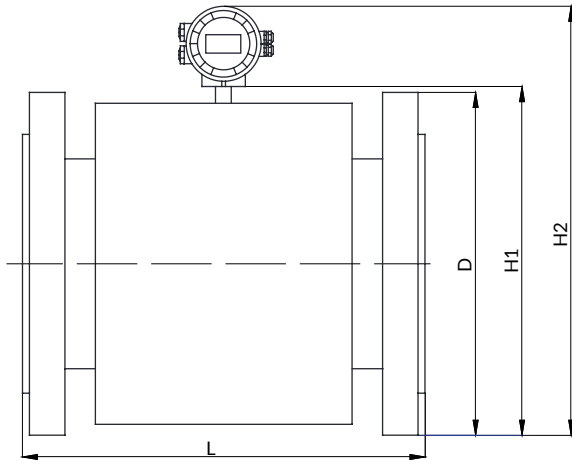
## STANDARD INTEGRAL TYPE



## STANDARD REMOTE TYPE



## DIMENSIONS - Inline (ANSI flange)



NOM. PIPE DIAMETER - IN. (mm)	RATED PRESSURE PSIG (bar)	INSTRUMENT OUTLINE DIMENSION INCHES (mm)				FLANGE CONNECTION DIMENSION INCHES (mm)	WEIGHT LBS. (Kg)	
		L	H1	H2	H3		Integral	Remote
½" (15)	363 (25)	7.87 (200)	6.10 (155)	11.22(285)	8.46 (215)	3.74 (95)	12.12(5.5)	7.71(3.5)
¾" (20)		7.87 (200)	6.29 (160)	11.41(290)	8.66 (220)	4.13 (105)	14.33(6.5)	9.92(4.5)
1" (25)		7.87 (200)	6.49 (165)	11.61(295)	8.85 (225)	4.52 (115)	15.43(7)	11.02(5)
1¼" (32)		7.87 (200)	7.08 (180)	12.20(310)	9.44 (240)	5.51 (140)	18.73(8.5)	14.33(6.5)
1½" (40)		7.87 (200)	7.48 (190)	12.59(320)	9.84 (250)	5.90 (150)	19.84(9)	15.43(7)
2" (50)		7.87 (200)	7.87 (200)	12.99(330)	10.23 (260)	6.49 (165)	24.25(11)	19.84(9)
2½" (65)		9.85 (250)	8.66 (220)	13.77(350)	11.02 (280)	7.28 (185)	28.66(13)	24.25(11)
3" (80)		9.85 (250)	9.44 (240)	14.56(370)	11.81 (300)	7.87 (200)	33.06(15)	28.66(13)
4" (100)	230 (16)	9.85 (250)	9.84 (250)	14.96(380)	12.20 (310)	8.66 (220)	37.47(17)	33.06(15)
5" (125)		9.85 (250)	11.02 (280)	16.14(410)	13.38 (340)	9.84 (250)	37.47(21)	41.88(19)
6" (150)		11.81 (300)	12.59 (320)	17.71(450)	14.96 (380)	11.22 (285)	57.32(26)	52.91(24)
8" (200)	145 (10)	13.78 (350)	14.96 (380)	20.07(510)	17.32 (440)	13.38 (340)	74.95(34)	70.54(32)
10" (250)		17.71 (450)	16.92 (430)	22.04(560)	19.29 (490)	15.35 (390)	108.02(49)	103.61(47)
12" (300)		19.68 (500)	19.29 (490)	24.40(620)	21.65 (550)	17.51 (445)	130.07(59)	125.66(57)
14" (350)		19.68 (500)	21.65 (550)	26.77(680)	24.01 (610)	19.88 (505)	154.32(70)	149.91(68)
16" (400)		19.68 (500)	23.62 (600)	28.74(730)	25.98 (660)	22.24 (565)	191.80(87)	187.39(85)
18" (450)		21.65 (550)	25.19 (640)	30.31(770)	27.55 (700)	24.21 (615)	224.87(102)	220.46(100)
20" (500)		21.65(550)	27.55 (700)	32.67(830)	29.92 (760)	26.37 (670)	268.96(122)	264.55(120)
24" (600)		23.62 (600)	31.49 (800)	36.61(930)	33.85 (860)	30.70 (780)	357.14(162)	352.73(160)
28" (700)	87 (6)	27.56 (700)	33.85 (860)	38.97(990)	36.22 (920)	33.85 (860)	676.82(307)	672.40(305)
32" (800)		31.50 (800)	38.38 (975)	43.50(1105)	40.74 (1035)	38.38 (975)	919.33(417)	914.91(415)
36" (900)		35.43 (900)	42.32 (1075)	47.44(1205)	44.68 (1135)	42.32 (1075)	1161(527)	1157(525)
40" (1000)		39.37 (1000)	46.25 (1175)	51.37(1305)	48.62 (1235)	46.25 (1175)	1503(682)	1499(680)
48" (1200)		47.25 (1200)	55.31 (1405)	60.43(1535)	57.67 (1465)	55.31 (1405)	1647(747)	1642(745)
56" (1400)		55.12 (1400)	64.17 (1630)	69.29(1760)	66.53 (1690)	64.17 (1630)	2441(1107)	2436(1105)
64" (1600)		63.00 (1600)	72.04 (1830)	77.16(1960)	74.40 (1890)	72.04 (1830)	3146(1427)	3141(1425)
72" (1800)		70.87 (1800)	80.51 (2045)	85.62(2175)	82.87 (2105)	80.51 (2045)	4314(1957)	4310(1955)
80" (2000)		78.75 (2000)	89.17 (2265)	94.29(2395)	91.53 (2325)	89.17 (2265)	5472(2482)	5467(2480)

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<b>TYPE OF FLUID</b>	Please provide the name of your fluid media, the operating PH, and conductivity
<b>FULL SCALE FLOW</b>	Please provide the max and min flow rate, in units of Lb/hr, GPM or LPM
<b>LINE SIZE</b>	Please provide the nominal pipe size and process connection type (flange, threaded, etc.)
<b>PRESSURE &amp; TEMPERATURE</b>	We will calibrate your flow meter as close to your operating conditions as possible

### ALMAGWP SERIES

EXAMPLE: ALMAGWP-F-50-0-3-IN-2.5-65-0-DC-0-EXI-NN-NN

ALMAGWP-	*_	*	*_	*	*_	*	*_	*	*_	*	*_	**_	**	DESCRIPTION
ANSI 150# Flange	F													Connection
Ceramic - 4Mpa (DN15~DN200) ½"~8"	C													
DIN Standard Flange	D													
Sanitary type (DN15~DN200) ½"~4"	S													
Threaded type (DN15~DN200) ¾"~2"	T													
Wafer type (DN15~DN200) ¾"~8"	W													
DN10-DN 2000 (¾"~80")		**												Size
316 stainless steel			0											Electrode
Nickel			1											
Hastelloy C			2											
Tan			3											
Ti			4											
Ceramic			C											
Chloroprene Rubber (Neoprene)			3											Liner material
PU (Polyurethane)			4											
PTFE			5											
PFA			6											
F46			7											
Hard Rubber (Ebonite)			8											
Other			9											
Ceramic			C											
Integral type							IN							Transmitter
Remote type - with 5m cable							RE							
Max Pressure (362 psi) 2.5Mpa with flanges up to DN80								2.5						Pressure
Max Pressure (232 psi) 1.6Mpa with flanges up to DN150								1.6						
Max Pressure (145 psi) 1.0 Mpa with flanges up to DN2000								1.0						
Max Pressure (87 psi) 0.6Mpa with flanges up to DN2000								0.6						
IP65									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				
16~30 V <sub>DC</sub>											DC			Power supply
85~265 V <sub>AC</sub> @ 45-63 Hz											AC			
No Digital 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		
None													NN	Options
With CS install flange													IF	

