



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 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

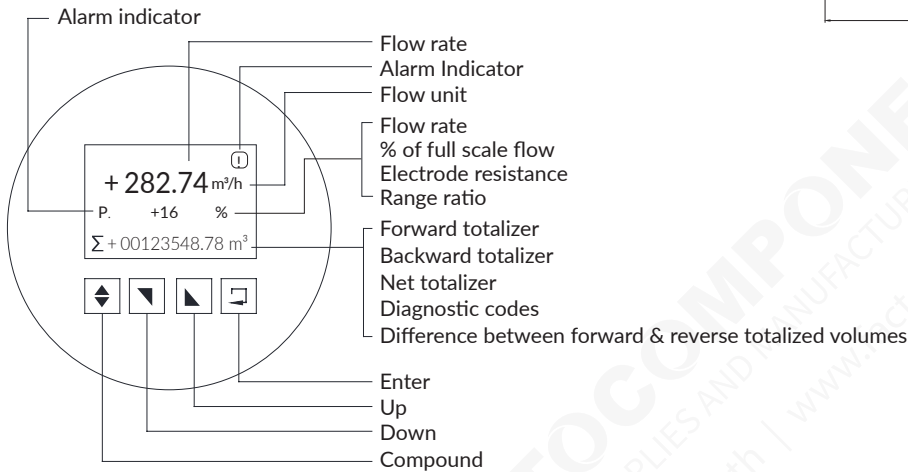
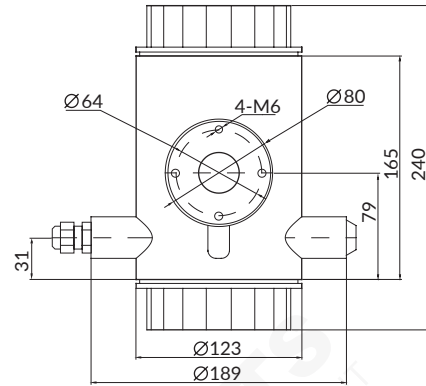
- Various liner materials are available to satisfy nearly all industrial applications.
- Wide fluid velocity range of 0-39 ft/sec (0-12 m/s) with excellent low-flow accuracy.
- Flange-type process connections available in ANSI, DIN, and JIS style
- Optional 5 Amp, form C reley contacts allow high power 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

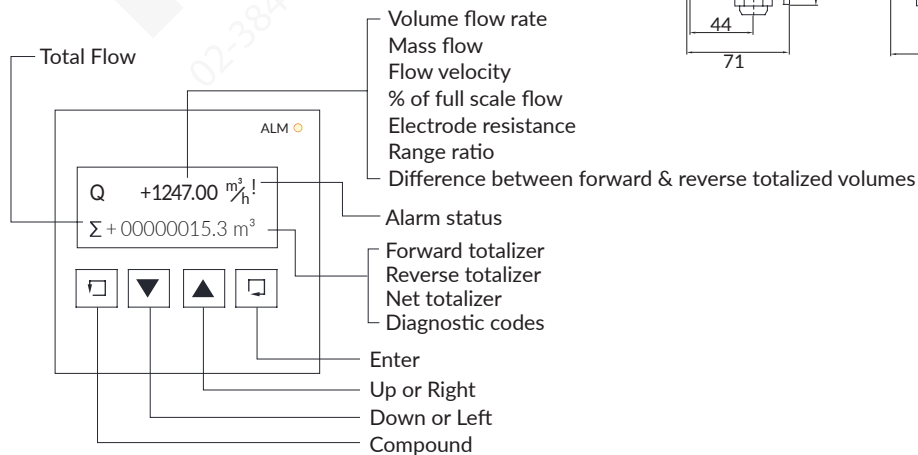
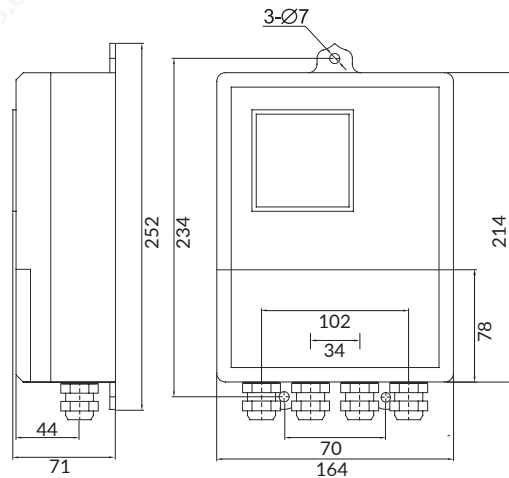
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|-----------------------|---|--------------------------|---|
| • Size: | 3/8"~80" (DN10~DN2000) | • Communication: | HART
RS485/Modbus
Profibus-DP |
| • Measuring Range: | 0.32ft/s (0.1m/s) min. fluid velocity
39 ft/s (12 m/s) max. | • Electrode & Grounding: | Stainless Steel 316L
Nickel
Hastelloy C
Titanium
Tantalum |
| • Material: | | • Ambient Temperature: | -5 ~ +130 °F (-20 ~ 55 °C) |
| Measuring Tube: | Stainless Steel #304 | • Process Connection: | Flanged |
| Flange material: | Carbon Steel (standard)
Stainless Steel #304 (optional)
Stainless Steel #316 (optional) | Flange types: | Standard ANSI 150# |
| Coil Housing: | Carbon Steel (standard)
Stainless Steel #304 (optional)
Stainless steel #316 (optional) | Options: | JIS 10K / JIS 20K / JIS 40K
ANSI 300# / ANSI 600#
DIN PN10 / PN16 / PN25 / PN40 |
| • Liner: | Chloroprene Rubber (Neoprene)
Polyurethane, Hard Rubber (Ebonite)
PTFE, F46, PFA | • Grounding Resistance: | < 10 Ω |
| • Protection: | IP65
IP68 (remote type only) | • Accuracy: | $\pm 0.5\%$ of reading (Velocity ≥ 0.5 m/s)
± 0.005 m/s (Velocity < 0.5 m/s) |
| • Conductivity: | $\geq 5 \mu\text{S/cm}$ | • 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 |
| • Power Requirements: | 110-240V _{AC} or 16-36 V _{DC} | | |
| • Outputs: | 4-20mA, pulse,
(2) open collector switches or (2) Form C,
(2) Form C, 5 Amp relay contacts (optional) | | |

MOUNTING DRAWING

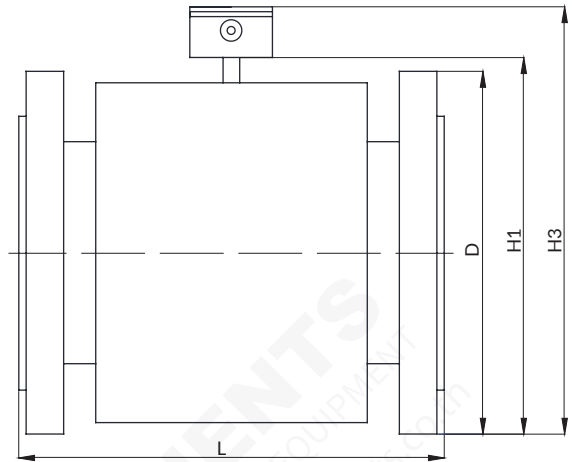
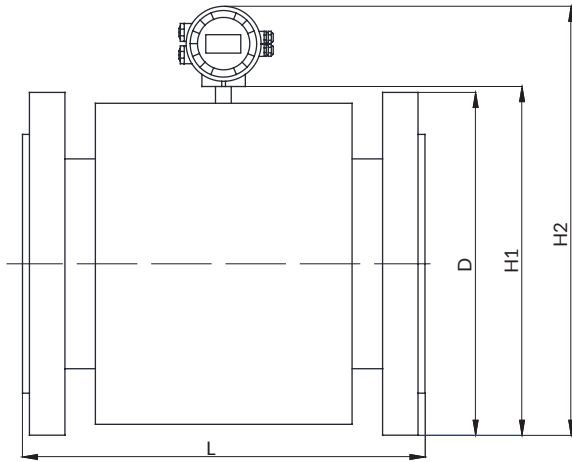
STANDARD INTEGRAL TYPE



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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TYPE OF FLUID	Please provide the name of your fluid media, the operating PH, and conductivity
FULL SCALE FLOW	Please provide the max and min flow rate, in units of Lb/hr, GPM or LPM
LINE SIZE	Please provide the nominal pipe size and process connection type (flange, threaded, etc.)
PRESSURE & TEMPERATURE	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 ½"~8" (DN15~DN200)	C													
Sanitary type - ½"~8" (DN15~DN200)	S													
Threaded type - ½"~8" (DN15~DN200)	T													
Wafer type - ½"~8" (DN15~DN200)	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											
Ceramic			C											
Integral type						IN								Transmitter
Remote type - with 5m cable						RE								
Max Pressure (362 psi) 2.5Mpa with flanges up to 3"/DN80								2.5						Pressure
Max Pressure (232 psi) 1.6Mpa with flanges up to 6"/DN150								1.6						
Max Pressure (145 psi) 1.0 Mpa with flanges up to 36"/DN900								1.0						
Max Pressure (87 psi) 0.6Mpa with flanges up to 80"/DN2000								0.6						
Standard - IP65									65					Protection
IP68 flow body and IP65 transmitter, only for remote type									68					
Not Needed										0				Grounding rings
Grounding electrode										1				
SS# 304 grounding ring										2				
16~30 V _{DC}											DC			Power supply
85~265 V _{AC} @ 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													EXI	
Explosion Proof - for remote type													EXR	
Aluminum Enclosure, SS # 304 flow tube, CS coil housing and process connection													NN	Materials
Aluminum Enclosure, SS # 304 flow tube, CS coil housing and SS # 304 process connection													C304	
Aluminum Enclosure, SS # 304 flow tube, coil housing and SS # 304 process connection													304	
None													NN	Options
With CS install flange													IF	