

## CATALOG WMAG 21

Electromagnetic Flowmeter





#### GENERAL

WMAG21 series electromagnetic flow meters are specializing in measuring conductive liquid (conductivity>  $5\mu s/cm$ ). These series flow meters have high applicability for low flow rate, sewage, acid and alkali liquid, low abrasive slurry. Our products have advance intellective-tech, field show and communicator.

WMAG21 series electromagnetic flow meter

#### APPLICATION

Electromagnetic flow sensors WMAG30 are precision measuring devices, suitable for determining the flow rate of nearly any electrically conductive fluid, but also for substances such as sludge, pulp and paste. Due to the magnetic field, the device can be used to measure flow rates up to 12 m/s (39.3 ft/s) and a minimum conductivity of 5  $\mu\text{S/cm}$ , when using a synchronized static field. The entire measuring device comprises a flow sensor and a dedicated transmitter. Those can be delivered either separately or as a compact unit. The electromagnetic flow sensors WMAG30 are applied mainly in the following

- Water and sewage plants
- Chemical and pharmaceutical industry
- Food and beverage industry
- Mining, cement and mineral mate
- Pulp and paper industry, Energy industry
- Steel industry, public utilities



#### **FEATURE**

- Offer easy installation, User-friendliness operation.
- Keep in long-time use in 150 degree hot water
- High temperature sensor
- High temperature industrial components
- Insulating temperature parts between sensor and converter





#### TECHNICAL DATA

Velocity range  0.01m/s to 10 m/s  \[ \frac{\pmath{\text{totany}}{\pmath{\text{totange}}}  0.01m/s to 10 m/s  \[ \frac{\pmath{\text{totange}}{\pmath{\text{totange}}}  0.01m/s to 10 m/s  \[ \frac{\pmath{\text{totange}}{\pmath{\text{totange}}}  0.01m/s to 10 m/s  \]  \[ \pmath{\text{totange}}  0.01m/s to 10 m/s						
Accuracy  calculation and empty check function bidirectional measurementselectrode  Size  3/8 inch to 72 inch  Pressure rating  PN1.6 to PN40 MPa,Class150/300/600/900,JIS10k/20k  Body material  sus304 or 316L stainless steel  Flange material  carbon or sus304 or 316L  Cover materila of sensor  carbon or sus304 or 316L  Process connect  flange or threaded or clamp connect  Lining material  ptfe , chloroprene rubber,fep, pu  Electrode material  316L,hastelloy alloy,titanium, tantalum  Power supply  24VDC or 110VAC or 220VAC  Output signal  Alarm signal  high and low alarm output  Communction  Hart or RS485(modbus)  Display  LCD , 4-line, flow rate and total flow  Unit  m3,liter, gallon, ton(t) ,kg	Velocity range	0.01m/s to 10 m/s				
Pressure rating PN1.6 to PN40 MPa,Class150/300/600/900,JIS10k/20k Body material sus304 or 316L stainless steel Carbon or sus304 or 316L stainless steel Cover materila of sensor carbon or sus304 or 316L Process connect flange or threaded or clamp connect Lining material ptfe , chloroprene rubber,fep, pu Electrode material 316L,hastelloy alloy,titanium, tantalum Power supply 24VDC or 110VAC or 220VAC Output signal 4-20mA and pulse Alarm signal high and low alarm output Communction Hart or RS485(modbus) Display LCD , 4-line, flow rate and total flow Unit m3,liter, gallon, ton(t) ,kg	Accuracy	calculation and empty check function bidirectional				
Body material sus304 or 316L stainless steel  Flange material carbon or sus304 or 316L stainless steel  Cover materila of sensor carbon or sus304 or 316L  Process connect flange or threaded or clamp connect  Lining material ptfe, chloroprene rubber,fep, pu  Electrode material 316L,hastelloy alloy,titanium, tantalum  Power supply 24VDC or 110VAC or 220VAC  Output signal 4-20mA and pulse  Alarm signal high and low alarm output  Communction Hart or RS485(modbus)  Display LCD, 4-line, flow rate and total flow  Unit m3,liter, gallon, ton(t),kg	Size	3/8 inch to 72 inch				
Flange material carbon or sus304 or 316L stainless steel  Cover materila of sensor carbon or sus304 or 316L  Process connect flange or threaded or clamp connect  Lining material ptfe, chloroprene rubber,fep, pu  Electrode material 316L,hastelloy alloy,titanium, tantalum  Power supply 24VDC or 110VAC or 220VAC  Output signal 4-20mA and pulse  Alarm signal high and low alarm output  Communction Hart or RS485(modbus)  Display LCD, 4-line, flow rate and total flow  Unit m3,liter, gallon, ton(t),kg	Pressure rating	PN1.6 to PN40 MPa,Class150/300/600/900,JIS10k/20k				
Cover materila of sensor carbon or sus304 or 316L  Process connect flange or threaded or clamp connect  Lining material ptfe , chloroprene rubber,fep, pu  Electrode material 316L,hastelloy alloy,titanium, tantalum  Power supply 24VDC or 110VAC or 220VAC  Output signal 4-20mA and pulse  Alarm signal high and low alarm output  Communction Hart or RS485(modbus)  Display LCD , 4-line, flow rate and total flow  Unit m3,liter, gallon, ton(t) ,kg	Body material	sus304 or 316L stainless steel				
Process connect  Lining material  ptfe , chloroprene rubber,fep, pu  Electrode material  316L,hastelloy alloy,titanium, tantalum  Power supply  24VDC or 110VAC or 220VAC  Output signal  4-20mA and pulse  Alarm signal  high and low alarm output  Communction  Hart or RS485(modbus)  Display  LCD , 4-line, flow rate and total flow  Unit  m3,liter, gallon, ton(t) ,kg	Flange material	carbon or sus304 or 316L stainless steel				
Lining material ptfe , chloroprene rubber,fep, pu  Electrode material 316L,hastelloy alloy,titanium, tantalum  Power supply 24VDC or 110VAC or 220VAC  Output signal 4-20mA and pulse  Alarm signal high and low alarm output  Communction Hart or RS485(modbus)  Display LCD , 4-line, flow rate and total flow  Unit m3,liter, gallon, ton(t) ,kg	Cover materila of sensor	carbon or sus304 or 316L				
Electrode material  316L,hastelloy alloy,titanium, tantalum  Power supply  24VDC or 110VAC or 220VAC  Output signal  4-20mA and pulse  Alarm signal  high and low alarm output  Communction  Hart or RS485(modbus)  Display  LCD , 4-line, flow rate and total flow  Unit  m3,liter, gallon, ton(t) ,kg	Process connect	flange or threaded or clamp connect				
Power supply  24VDC or 110VAC or 220VAC  Output signal  4-20mA and pulse  Alarm signal  high and low alarm output  Communction  Hart or RS485(modbus)  Display  LCD , 4-line, flow rate and total flow  Unit  m3,liter, gallon, ton(t) ,kg	Lining material	ptfe , chloroprene rubber,fep, pu				
Output signal  4-20mA and pulse  Alarm signal  high and low alarm output  Communction  Hart or RS485(modbus)  Display  LCD , 4-line, flow rate and total flow  Unit  m3,liter, gallon, ton(t) ,kg	Electrode material	316L,hastelloy alloy,titanium, tantalum				
Alarm signal high and low alarm output  Communction Hart or RS485(modbus)  Display LCD , 4-line, flow rate and total flow  Unit m3,liter, gallon, ton(t) ,kg	Power supply	24VDC or 110VAC or 220VAC				
Communction Hart or RS485(modbus)  Display LCD , 4-line, flow rate and total flow  Unit m3,liter, gallon, ton(t) ,kg	Output signal	4-20mA and pulse				
Display  LCD , 4-line, flow rate and total flow  Unit  m3,liter, gallon, ton(t) ,kg	Alarm signal	high and low alarm output				
Unit m3,liter, gallon, ton(t) ,kg	Communction	Hart or RS485(modbus)				
1.100°C	Display	LCD , 4-line, flow rate and total flow				
Fluid temperature up to180 ℃	Unit	m3,liter, gallon, ton(t) ,kg				
	Fluid temperature	up to180 ℃				

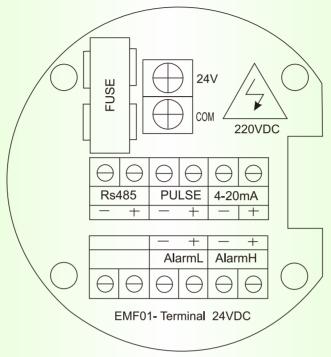
#### FLOWRANGE

Size	Qmax(m³/h)	Qmax(m³/h)	Size	Qmin(m³/h)	Qmax(m³/h)	Size	Qmin(m³/h)	Qmax(m³/h)
Dn 20	0.11	11	Dn125	4.4	441	500	71	7065
Dn 25	0.18	8 18 Dn150 6.4 635		635	600	102	10170	
Dn 32	0.29	29	Dn200	11.3	1130	700	139	13840
Dn 40	0.45	45	Dn250	17.7	1766	800	181	18080
Dn 50	0.71	71	Dn300	25.5	2543	900	229	22890
Dn 65	1.19	119	Dn350	34.5	3461	1000	283	28260
Dn 80	1.81	180	Dn400	45.2	4521			
Dn 100	1.83	282	Dn450	57.3	5722			

WWW.WMA.CO.ID PAGE 2

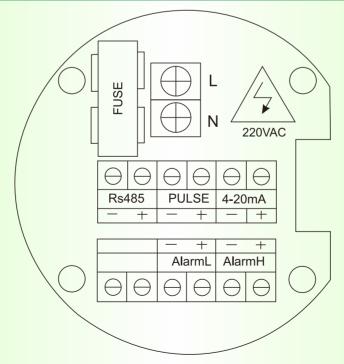


#### POWER 24VDC



24VDC POWER SUPPLY TERMINAL BLOCK SCHEMATIC

#### POWER 220VAC



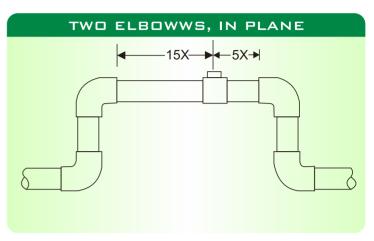
220VAC POWER SUPPLY TERMINAL BLOCK SCHEMATIC

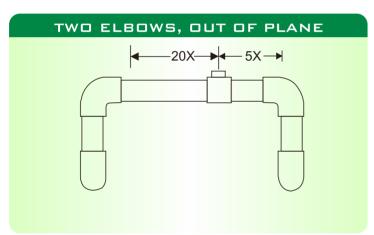
WWW.WMA.CO.ID PAGE 3

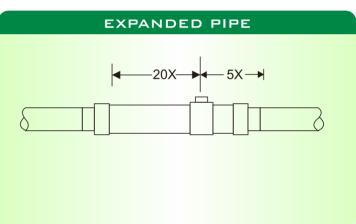


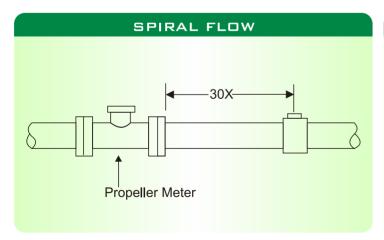
### NUMBER OF PIPE DIAMETER ( X = Diameter )

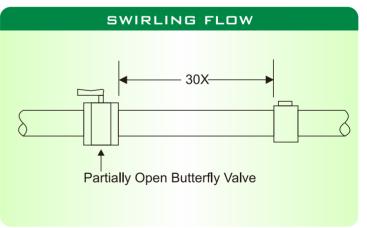
# REDUCED PIPE





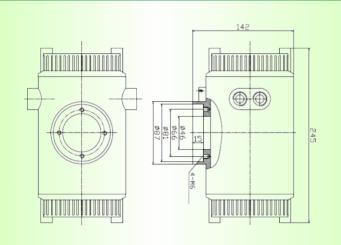


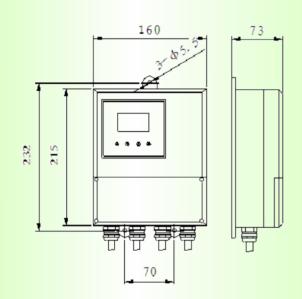


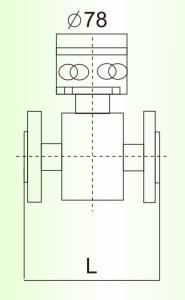


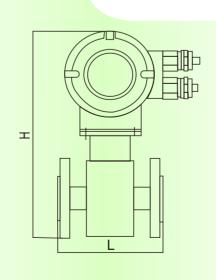


#### DIMENSION



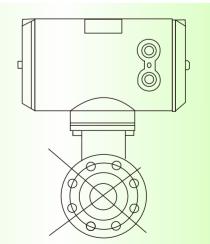








SIZE	L mm	SIZE	L mm	
DN10	160	DN250	400	
DN15	160	DN300	500	
DN20	160	DN350	500	
DN25	160	DN400	600	
DN32	160	DN450	600	
DN40	200	DN500	600	
DN50	200	DN600	600	
DN65	200	DN700	700	
DN80	200	DN800	800	
DN100	250	DN900	900	
DN125	250	DN1000	1000	
DN150	300	DN1200	1200	
DN200	350	DN1400	1400	





#### MODEL TABLE

WMAG21	10	16	2A	1	00	R	/N	Detail description
	20							DN20
								-
	1000							DN100
		10						PN1.0 Mpa
		16						PN1.6MPa
		25						PN2.5MPa
		40						PN4.0MPa
			2A					PTFE lining,316L electrode
1A		1A					rubber lining,316L electrode	
			0 220V.AC		220V.AC			
				1				24V.DC
					00			Integral type, IP65
					10			Split type, IP65
					11			Split type, IP698
						R		RS485(modbuse protocol)
						N		No communication
							/N	No cable (integral type)
							/**m	**meter cable (split type)

#### Note:

1. For ANSI, JIS, please contact us.

2. For ±0.2% of accuracy, please contact us.