



## ELECTROMAGNETIC FLOW CONVERTER APE511

Bull.	484
Last update	October 2015
Italy version	
English version	X





# AP.E - Engineering

Instrumentation for industrial process and water plant



## ELETTROMAGNETIC FLOW CONVERTER APE511

### OUR PRODUCTS

#### MEASURE

Flow  
Level  
Pressure  
Temperature  
Density  
Displacement  
Rotation  
Energy  
Voltage  
Current  
and others...

#### ANALYZERS

Measure and Control

PH  
Redox  
Conductivity  
Chlorine  
Turbidity  
Opacity  
Oxygen  
and others...

#### AUTOMATIC

VALVES  
SLUICE GATE  
GATE VALVES  
Control and  
on-off Type

VALVE  
CONTROLLER  
Static (Triac)  
with Auto/Man

#### AUTOMATIONS

PLC-PCS  
Data-logger  
Controller  
Control  
panel

SOFTWARE  
ISI-S.C.A.D.A

CUSTOMIZED  
ENGINEERING

Instrumentation  
control



APE511-C  
Field version



APE511-Q  
Rack version  
(Control panel)



APE511-P  
Portable version

### WORK RANGE

DN (mm)	Min. Measur. (mc/h)	F.S. (6 m/s) (mc/h)	F.S. (12 m/s) (mc/h)	DN (mm)	Min. Measur. (mc/h)	F.S. (6 m/s) (mc/h)	F.S. (12 m/s) (mc/h)
3	0,0025	0,15	0,30	175	8,4	500	1000
6	0,01	0,6	1,2	200	14	800	1600
8	0,017	1	2	250	17	1000	2000
10	0,034	2	4	300	25	1500	3000
15	0,067	4	8	350	34	2000	4000
20	0,14	8	16	400	50	3000	6000
25	0,17	10	20	450	60	3600	7200
32	0,34	20	40	500	67	4000	8000
40	0,5	30	60	600	100	6000	12000
50	0,67	40	80	700	134	8000	16000
65	1	60	120	800	167	10000	20000
80	1,7	100	200	900	200	12000	24000
100	3,4	200	400	1000	250	15000	30000
125	5	300	600	1100	280	16800	33600
150	6,7	400	800	1200	334	20000	40000

### TECHNICAL DATA

Application	: industrial hi-tech
Mounting	: field C version – rack Q version – portable P version
Casing	: in plastic material C version – aluminium Q and P version
Keyboard	: 16 keys antidust, with access password
Display	: LCD 2x16, language Italian/English
Indication	: Flow and Volume
Range measures	: 0,1÷6 m/s or 0,1÷12 m/s (see table)
Analog Input	: from electromagnetic flowmeter (see technical bull.)
Digital Output	: 1÷4 rele' (3A-250Vac) (see optional)
Analog Output	: 4÷20 mA galvanically insulated (see optional)
Accuracy	: +/-0,1 % v.l.
Empty pipe	: included
Cut-off	: programmable
Connections	: with terminal block (optional industrial connector)
Ambient conditions	: Temperature -10÷50°C - Humidity 4÷95%
Protection	: IP65 C version (see Optional)
Supply	: std 90÷240 Vac (3W) (see Optional)
Dimension	: L240 H210 P110 C vers. L213 H128 P200 Q vers

Quality parameters  
MTBF 100.000 hours  
BURN-IN 120 hours



(Example of programmed display)



## ELECTROMAGNETIC FLOW CONVERTER APE511 OPTIONALS

DESCRIPTION		TAG	
Rack mounting	3U - 19" ½ rack standard (213x128x200 mm) (prot. IP55)	Q	
	3U 19" rack mounting frame for two equipments	B	
	3U 19" ½ rack closing panel for frame	C	
Keyboard and display	16 keys anti-dust keyboard with mnemonic symbols and access keyword 16 characters 2 lines LCD with Italian / English messages Visualizations in volume and weight engineering units Istantaneous flow, resettable and absolute totalization, autotest, programming	D	
Range	6 m/s	6	
	12 m/s	12	
Totalizers	N <sup>o</sup> 1 resettable	-	G
	N <sup>o</sup> 1 absolute (fiscal)	-	H
	N <sup>o</sup> 2 resettable + N <sup>o</sup> 2 absolute (for bidirectional flow) + N <sup>o</sup> 1 presetter for batch	-	Y
Analog output	Mono / bidirectional 4÷20 mA with galvanic separation modulo SMART/HART	P PA	
Digital output	N <sup>o</sup> 1 relay (Max 50Vdc 0,2A) for totalization	-	M
	N <sup>o</sup> 4 relay (Max 50Vdc 0,2A) programmable as: - direct totalizer; - inverse totalizer; - minimum and maximum flow alarm; - malfunction – empty pipe alarm; - flow direction; - presetter (batch)	-	R
Digital input	N <sup>o</sup> 1 passive contact programmable as:		T
	- partial totalizers reset;	-	
	-zero blockage of measure (for washing)		
	- presetter reset	-	
Serial output	RS485 – for P.C.		4
	RS232 – interface for P.C. / modem / radio link / local printer		3
Special function	Calendar clock; Time counter for fiscal measurement; Others on specific requirements	-	U
Cut-off	Programmable	-	K
Empty pipe device	- Zero blockage of measure		W
	- Signaling on display	-	
	- Alarm on digital output	-	
Electrodes auto-cleaning			16
Connections to flowmeter	Industrial connector		18
Power supply	90 ÷ 240Vac 3W		2
	12 ÷ 24Vac ±10% 3W		N
	10 ÷ 35Vdc ±10% 3W		Z
	others on request		S

**ACCESSORIES** : Rod/canopy for protection (field version) **see bull. 356EN**

: overvoltage protection for power supply lines

: overvoltage protection for 4/20mA signal lines