



ELECTROMAGNETIC FLOWMETERS



THE FIRST ITALIAN MANUFACTURER OF ELECTROMAGNETIC FLOWMETERS FOR 33 YEARS IN BOTH ITALIAN AND FOREIGN HIGH-TECH MARKET

Boll.	200
Date.	june 2004
Italian version	
English version	X



Automation Progetti



- ITALIAN MANUFACTURER -
since 1975

MODULAR CONVERTER FOR ELECTROMAGNETIC FLOWMETER AP501/AP502 –Base or Hi-Tech version



AP501/ AP502
FOR FIELD MOUNTING



AP501/ AP502
FOR RACK MOUNTING



AP501 / AP502 PORTABLE

Table of Working/ranges

DN (mm)	Min. maesurement (mc/h)	Min. F.S. (mc/h)	Max. F.S. (6m/s) (mc/h)	Max. F.S. (12 m/s) (mc/h)	DN (mm)	Min. maesurement (mc/h)	Min. F.S. (mc/h)	Max. F.S. (6m/s) (mc/h)	Max. F.S. (12 m/s) (mc/h)
3	0,0025	0,015	0,15	0,30	175	8,4	50	500	1000
6	0,01	0,06	0,6	1,2	200	14	80	800	1600
8	0,017	0,1	1	2	250	17	100	1000	2000
10	0,034	0,2	2	4	300	25	150	1500	3000
15	0,067	0,4	4	8	350	34	200	2000	4000
20	0,14	0,8	8	16	400	50	300	3000	6000
25	0,17	1	10	20	450	60	360	3600	7200
32	0,34	2	20	40	500	67	400	4000	8000
40	0,5	3	30	60	600	100	600	6000	12000
50	0,67	4	40	80	700	134	800	8000	16000
65	1	6	60	120	800	167	1000	10000	20000
80	1,7	10	100	200	900	200	1200	12000	24000
100	3,4	20	200	400	1000	250	1500	15000	30000
125	5	30	300	600	1100	280	1680	16800	33600
150	6,7	40	400	800	1200	334	2000	20000	40000

GENERAL TECHNICAL DATA

- Version: A) HI-TECH ,for industrial application , microprocessor based , with non-volatile memory (EEPROM); **i.c. with sockets**
B) BASE, for general application, microprocessor based , with non-volatile memory (EEPROM); **welded i.c.**
- Mounting: field (**see optional**)
- Casing: in plastic material (**see optional**)
- Zero.....: automatic compensation (autozero)
- Range.....: 0,1/6-12m/s (**see optional**)
- F.S.....: programmable (see table)
- Autorange: automatic
- Keyboard: 16 keys, antidust, multicolor with access key
- Language: Italian / English
- Data display.....: alphanumeric programmable on LCD (2 x 16) (**see optional**)
- Input.....: from electromagnetic flowmeter
- DC Output: 4 ÷ 20 mA galvanically insulated active (max 600 Ω) ; 4 ÷ 20 mA galvanically insulated passive (10 ÷ 30 Vdc) (**see optional**)
- Digital Output.....: No.1-4 (**see optional**)
- Digital Input: No.1 (**see optional**)
- Serial Output.....: RS232/485 (**see optional**)
- Accuracy.....: ±0,1% HT version - ±0,15% BASE version
- Autotest.....: malfunction warning on LCD
- Cut-off: programmable (**see optional**)
- Empty pipe: (**see optional**)
- Electrodes auto-cleaning : (**see optional**)
- Connections: with terminal block and PG11/PG13,5 fittings cable (**see optional**)
- Electric protection: line filters, fuses, varistors on power supply (CE)
- Mec. protection.....: IP 65 (field); IP55 (rack) (CEI EN 60529)
- Humidity.....: 4 ÷ 95 % (non condensing) HT version /5 ÷ 90%(non condensing) BASE version
- Ambient temp.....: -20 ÷ 60 °C HT version -10 ÷ 50 °C BASE version
- Power supply: std 220/110 Vac ± 10 % (3W) ; others on request (**see optional**)
- Dimensions: L240 H210 P110 mm (field version) ; L213 H128 P200 mm (rack version)
- Weight: 2 Kg
- Burn-in.....: 120 hours HT version / 40 hours BASE version
- MTBF: 100.000 hours HT version / 50.000 hours BASE version
- Optional**: **see bull.204**
: **special functions on request**

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OPTIONAL AP501/AP502 - B or HI-TECH version

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	Clear 16 keys anti-dust keyboard with mnemonic symbols and access keyword	D
	16 characters 2 lines LCD with Italian / English messages Visualizations in volume and weight engineering units Instantaneous flow, resettable and absolute totalization, autotest, programming	
Range	Bach-lit LCD	E
	6 m/s	- it needs of the opt. D
Totalizers	12 m/s	6
	N ^f 1 resettable	- it needs of the opt. D
Analog output	N ^f 1 absolute (fiscal)	- it needs of the opt. D
	N ^f 2 resettable + N ^f 2 absolute (for bidirectional flow)	- it needs of the opt. D
	+ N ^f 1 presetter for batch	Y
Digital outputs	Mono / bidirectional 4÷20 mA with galvanic separation	P
Digital input	N ^f 1 relay (Max 50Vdc 0,2A) for totalization	- non compatible with opt. R
	N ^f 4 relay (Max 50Vdc 0,2A) programmable as:	- it needs of the opt. D
	- direct totalizer;	- non compatible with opt. M
	- inverse totalizer;	
	- minimum and maximum flow alarm;	
Serial output	- malfunction – empty pipe alarm;	
	- flow direction;	
	- presetter (batch)	
	N ^f 1 passive contact programmable as:	- non compatible with opt. 3
Special function	- partial totalizers reset;	- it needs of the opt. G or Y
	- zero blockatge of measure (for washing)	
	- presetter reset	- it needs of the opt. Y
Cut-off	RS485 – interface for P.C.	4
	RS232 – interface for P.C. / modem / radio link / local printer	3
Empty pipe device	Calendar clock;	- it needs of the opt. D
	Time counter for fiscal mesurement; Others on specific requirements	
Electrodes auto-cleaning	Programmable	K
	- Zero blockage of measure	
	- Signalintg on display	- it needs of the opt. D
Connections to flowmeter	- Alarm on digital output	- it needs of the opt. R
	Industrial connector	16
	220/230Vac ±10%	18
	110/115Vac ±10%	2
	24Vac ±10%	1
Power supply	24Vdc ±10%	N
	Altre a richiesta	Z
		S

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