

BM-3 — ELECTROMAGNETIC FLOWMETER

MAIN FEATURES

DIAMETER RANGE 10 TO 1200MM
PULSE, FREQUENCY AND ANALOGUE OUTPUT (4-20MA)
POWER SUPPLY STANDARD: 115/230V 50/60HZ
POWER SUPPLY ON REQUEST: 12, 24, 48V, AC/DC 50/60HZ
NON-TOUCH BASIC MANUAL CONTROL WITH MAGNETIC POINTER
DATALOGGER - DATA STORAGE IN THE PRESET TIME INTERVALS
PIPE AND ELECTRONIC SELF DIAGNOSTIC
INTERFACE RS232, RS485

AGAINST MODEL **BM-3** FLOWMETER
BM-3-E IS NOT EQUIPPED WITH
DATALOGGER, KEYBOARD,
RS485 INTERFACE AND REAL TIME
CLOCK. CONTROL IS POSSIBLE
THROUGH MAGNETIC POINTER OR
RS232 INTERFACE.



BM-3-E
ECONOMIC VERSION



APPLICATIONS

WATER, FOOD, PAPER AND CHEMICAL INDUSTRY

B METERS

Contatori Acqua - Water Meters

B METERS srl

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BM-3 – TECHNICAL SPECIFICATIONS

NOMINAL SIZE	DN10 TO DN1200
NOMINAL PRESSURE	PN10 TO PN40
FLOW RANGE	0.1 TO 10 M/S (0.02 TO 5000 l/s)
ACCURACY	0.5% (0.5 TO 10 M/S) OF MEASURED VALUE 1% (0.1 TO 0.5 M/S) OF MEASURED VALUE
MAXIMAL MEDIUM TEMPERATURE	UP TO 90°C FOR HARD RUBBER LINING UP TO 150°C FOR PTFE LINING
AMBIENT TEMPERATURE	-20 TO 60°C (-4 TO 140°F)
POWER SUPPLY	115/230V (+10%, -15%), 50/60HZ, AUTO SELECTABLE 12V, 24V, 48V AC/DC 50/60HZ AS OPTION
POWER CONSUMPTION	10 VA
LINING	HARD RUBBER PTFE
ELECTRODES	STAINLESS STEEL, HASTELLOY, TITANIUM, TANTALUM AND PLATINUM
FLANGES	DIMENSIONS ACCORDING TO DIN, ANSI
SENSOR DESIGN	FLANGED, FLANGELESS, FOOD INDUSTRY AND ALL STAINLESS STEEL DESIGN
PROTECTION CATEGORY	COMPACT VERSION: IP67 SEPARATE VERSION: CONVERTER IP65 (OPTIONALLY IP67) SENSOR IP67 (OPTIONALLY IP68)
PROGRAMMABLE OUTPUTS	FREQUENCY 0 TO 12 KHZ PULSE 0 TO 50 HZ RELAY CONTACTS 100 V / 0.5 A CURRENT LOOP 4 TO 20 MA
INPUT	DIGITAL INPUT WITH PROGRAMMABLE FUNCTION
COMMUNICATION	RS485, RS232
CONTROL	KEYBOARD, MAGNETIC POINTER, RS232 OR RS485
LOW-FLOW CUTOFF	PROGRAMMABLE VALUE
TIME CONSTANT	SETTABLE IN RANGE 1 TO 20 S
OTHER FEATURES	TEST OF EXCITATION COILS, STATUS OF PIPE LINE AND ELECTRONIC UNIT DIAGNOSTIC OF INTERNAL TEMPERATURE AND POWER SUPPLY VOLTAGES REAL TIME CIRCUIT FOR DATALOGGING DATALOGGER MEMORY UP TO 20000 VALUES (PROGRAMMABLE SAMPLE RATE) REGISTRATION OF MIN. AND MAX. FLOWRATE INCLUDING DATE AND TIME
CONFORMITY REQUIREMENTS	LVD (SAFETY) ACCORDING TO EN 61010-1 , EN61010-1/A2 PED ACCORDING TO DIRECTIVE 97/23/EC EMC ACCORDING TO EN 61000 PART 3-2, 3-3, EN 61000 4-3, 4-4, 4-5, 4-6, 4-8, 4-11, EN 61000 PART 6-2, EN 50081-1

THE **BM-3** ELECTROMAGNETIC FLOWMETER IS A DEVICE DESIGNED FOR MEASURING, INDICATING AND STORING FLOW AND PASSED THROUGH VOLUME DATA OF CONDUCTIVE LIQUIDS. FLOWMETER **BM-3** RECORDS BOTH POSITIVE AND NEGATIVE FLOW. AS THERE ARE NEITHER MOVING NOR MECHANICAL PARTS IN THE FLOW PROFILE THE DEVICE CAN BE APPLIED TO MEASURE EXTREMELY POLLUTED LIQUIDS CONTAINING EVEN SOLID PARTICLES. THE ONLY CONDITION THAT LIMITS ITS USE IS THE MINIMUM ELECTRICAL CONDUCTIVITY OF THE FLUID BEING MEASURED.

FEATURES

THE **BM-3** IS A HIGHLY ACCURATE AND STABLE DEVICE. THE CONSTRUCTION OF THE **BM-3** INDICATOR USES COMPONENTS WITH A LONG-TERM TIME AND TEMPERATURE STABILITY. CONFIGURATION DATA IS BACKED UP AND CAN BE RECOVERED AFTER A POWER FAILURE. THE BACK-UP STRUCTURE ENABLES DATA RECOVERY IN CASE OF A PARTIAL LOSS OF DATA (AS A RESULT OF E.G. HIGH LEVEL ELECTROSTATIC DISCHARGE OR HIGH NOISE OF POWER SUPPLYING). INTERNAL CPU PROVIDES ALL FUNCTIONS USUALLY BUILT IN ELECTRONIC FLOW METERS, INCL. LOW FLOW RATE CORRECTION, FREQUENCY RESPONSE SETTING, BANDWIDTH OF SENSITIVITY SETTING AT LOW FLOW RATES, ETC.

INPUTS / OUTPUTS

THE **BM-3** FLOWMETER IS EQUIPPED WITH SIX ISOLATED OUTPUTS AND ONE ISOLATED INPUT AS STANDARD. DIGITAL OUTPUTS (FREQUENCY, PULSE AND RELAYS) AND INPUT ARE USER CONFIGURABLE. CURRENT OUTPUT 4-20 MA CAN BE USED AS PASSIVE OR ACTIVE TYPE. FOR COMMUNICATION ARE AVAILABLE RS232 AND RS485 OUTPUTS.

APPLICATIONS

THE **BM-3** ELECTROMAGNETIC FLOWMETER IS DESIGNED TO BE USED IN THE CHEMICAL INDUSTRY, PAPER INDUSTRY, WATERWORKS MAINTENANCE, WASTE-WATER MAINTENANCE ETC.