

FC3 — ELECTROMAGNETIC FLOWMETER

MAIN FEATURES

DIAMETER RANGE 10 TO 1200MM
PULSE, FREQUENCY, STATUS, ANALOGUE OUTPUT (4-20MA)
POWER SUPPLY STANDARD: 85 TO 264V AC 50/60HZ
POWER SUPPLY ON REQUEST: 12, 24, 48V DC
DATALOGGER MEMORY - UP TO 15000 SAMPLES IN REAL TIME
EMPTY PIPE DETECTION, PIPE AND ELECTRONIC SELF DIAGNOSTIC
EXCITATION COILS TEMPERATURE MEASUREMENT
INTERFACE RS232, RS485 (MODBUS)

AGAINST MODEL FC3 FLOWMETER
FC3-E IS NOT EQUIPPED WITH
DATALOGGER, KEYBOARD,
RS485 INTERFACE AND REAL TIME
CLOCK. CONTROL IS POSSIBLE
THROUGH MAGNETIC POINTER OR
RS232 INTERFACE.



FC3-E
ECONOMIC VERSION



APPLICATIONS

WATER, FOOD, PAPER AND CHEMICAL INDUSTRY

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FC3 - TECHNICAL SPECIFICATIONS

NOMINAL SIZE	DN10 TO DN1200
NOMINAL PREASSURE	PN10 TO PN40 (1,0 TO 4,0MPa)
FLOW RANGE	0,03 TO 12M/S (0.01 TO 6000L/S)
ACCURACY	0,25% FOR RANGE 0.5 TO 12M/S 0.003M/S FOR RANGE 0.03 TO 0.5M/S
MAXIMAL MEDIUM TEMPERATURE	70°C (158°F) - HARD RUBBER LINING 150°C (302°F) - PTFE LINING / 130°C (266°F) - E-CTFE LINING
AMBIENT TEMPERATURE	-20°C TO +60°C (-4°F TO +140°F)
POWER SUPPLY	85 TO 264V AC, 50/60Hz 12, 24, 48V DC OPTIONAL
POWER CONSUMTION	10VA
LINING	HARD RUBBER PTFE / E-CTFE
ELECTRODES	STAINLESS STEEL, HASTELLOY, TITANIUM
FLANGES	DIN, ANSI
SENSOR DESIGN	FLANGED, FLANGELESS, FOOD INDUSTRY, ALL STAINLESS STEEL DESIGN
PROTECTION CATEGORY	COMPACT VERSION: IP67 REMOTE VERSION: TRANSMITTER IP65 (OPTIONALLY IP 67) SENSOR IP67 (OPTIONALLY IP 68)
PROGRAMMABLE OUTPUTS	FREQUENCY 0 TO 12kHz, PROGRAMMABLE PULSE 0 TO 500Hz, PROGRAMMABLE STATUS, PROGRAMMABLE CURRENT LOOP 4-20mA
INPUT	DIGITAL INPUT WITH PROGRAMMABLE FUNCTION
COMMUNICATION	RS485 (MODBUS), RS232
CONTROL	KEYBOARD, MAGNETIC POINTER, RS485 (MODBUS) OR RS232
LOW-FLOW CUTOFF	PROGRAMMABLE VALUE
TIME CONSTANTS	SETTABLE IN RANGE 1 TO 20s
OTHER FRATURES	EMPTY PIPE DETECTION, PIPE AND ELECTRONIC SELF DIAGNOSTIC, TEST OF EXCITATION COILS, DIAGNOSTIC OF INTERNAL TEMPERATURE AND POWER SUPPLY, DATALOGGER MEMORY (UP TO 15000 SAMPLES, PROGRAMMABLE SAMPLE RATE) WITH REAL TIME CLOCK, REGISTRATION OF MIN. AND MAX. FLOW RATE
CONFORMITY REQUIREMENTS	LVD (SAFETY) ACCORDING TO EN 61010 PED ACCORDING TO DIRECTIVE 97/23/EC EMC ACCORDING TO EN61000

THE FC3 ELECTROMAGNETIC FLOWMETER IS HIGHLY ACCURATE DEVICE DESIGNED FOR MEASURING, INDICATING AND STORING FLOW AND PASSED THROUGH VOLUME DATA OF CONDUCTIVE LIQUIDS. FLOWMETER FC3 RECORDS BOTH POSITIVE AND NEGATIVE FLOW. AS THERE ARE NEITHER MOVING NOR MECHANICAL PARTS IN THE FLOW PROFILE THE DEVICE CAN MEASURE EXTREMELY POLLUTED LIQUIDS CONTAINING EVEN SOLID PARTICLES. THE ONLY CONDITION THAT LIMITS ITS USE IS THE MINIMUM ELECTRICAL CONDUCTIVITY OF FLUID BEING MEASURED.

FEATURES

THE FC3 IS NOT ONLY HIGHLY ACCURATE BUT ALSO VERY STABLE DEVICE. THE CONSTRUCTION OF FC3 FLOWMETER 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 PARTIAL LOSS OF DATA (AS A RESULT OF E.G. HIGH LEVEL ELECTROSTATIC DISCHARGE OR HIGH NOISE OF POWER SUPPLYING). INTERNAL CPU PROVIDES FUNCTIONS AS: LOW FLOW RATE CORRECTION, FREQUENCY RESPONSE SETTINGS, BANDWIDTH OF SENSITIVITY SETINGS AT LOW FLOW RATES ETC. FC3 FLOWMETER CAN DETECT EMPTY MEASURING TUBE. FURTHERMORE, TEMPERATURE OF EXCITATION COILS COULD BE USED TO DISPLAY THE MEASURED LIQUID TEMPERATURE.

INPUT / OUTPUTS

THE FC3 FLOWMETER IS EQUIPPED WITH SIX ISOLATED OUTPUTS AND ONE ISOLATED INPUT AS STANDARD. DIGITAL OUTPUTS (FREQUENCY, PULSE AND RELAYS) AND INPUT CAN BE CONFIGURED BY THE USER. CURRENT OUTPUT (4-20mA) CAN BE USED AS BOTH PASSIVE AND ACTIVE TYPE. RS232 AND RS485 WITH IMPEMETED MODBUS PROTOCOL ARE AVAILABLE FOR COMMUNICATION.

APPLICATIONS

CHEMICAL INDUSTRY, PAPER INDUSTRY, WATERWORKS MAINTENANCE, WASTE-WATER MAINTENANCE ETC.