

# F112 Display of Rate & Total

<b>Model: F112</b>	Flow rate/total and accumulated total display instrument, 15 point linearisation.		
Display LCD/keys:	High Intensity reflective numeric and alphanumeric LCD: 40 x 90mm (1.6"x3.5"). Seven 17mm (0.67") and eleven 8mm (0.32") digits. Three industrial micro-switch keys with UV-resistant silicone keypad.		
HD Casing:	Sturdy IP67 / NEMA 4X GRP casing. Polycarbonate window. Silicone seals.		
Mounting:	Direct mounting or Wall mounting. 130 x 120 x 75 mm (5.1"x4.72"x2.95") WxHxD.		
Operating Temperature:	-30°C to +80°C (-22°F up to 176°F) (IS -30°C to +70°C (-22°F up to 158°F))		
Power supply:	8-28 V dc. (Or via 4-20mA output see <b>AP</b> options below)		
Configuration:	Configuration is done at SETUP-level. SETUP-level can be protected with a password.		
Data protection:	EEPROM backup of all settings (every minute). Data retention at least 10 years.		
P Flowmeter - pulse input:	Coil/sine wave (sensitivity selectable), reed switch, NPN/PNP or NAMUR. Minimum 0 Hz. - maximum 10 KHz. Flowmeter supply voltage: 3.2 VDC. For NAMUR and some other signal pick-ups, external power to the flowmeter is required. (see PM option below). A: analogue input option		
Time/Date:	Clock function available for operator and remote communication.		
<b>OPERATOR FUNCTIONS:</b>	<b>TOTAL:</b>	17mm character-size - 7 digits. Total is resettable; 11 digit accumulated total is not.	
	Measuring units:	L, m3, GAL, USGAL, KG, lb, bbl, no unit. Maximum three decimal places.	
	K-factor:	7 positions 0.000010 - 9,999,999.	
	<b>FLOWRATE:</b>	8mm or 17mm character-size - 5 or 7 digits. Settings independent of TOTAL. Measuring units: ml, l, m3, gallons, kg, ton, lb, bl, cf, rev (for RPM), ft <sup>3</sup> , scf, Nm <sup>3</sup> , NI, igal, no unit. Maximum three decimal places.	
	Time units:	Seconds, minutes, hours, days.	
	KL-factor:	7 positions 0.000010 - 9,999,999.	
	Pulse	3 outputs available, choice of combination.	
	<b>AA</b> Analogue Output:	Active 4-20mA output (requires option PD or PM).	
	<b>AP</b> Analogue Output:	Non isolated passive 4-20mA – 10 bit resolution; scalable to flow rate.	
	<b>AF</b> Analogue Output:	Isolated passive 4-20mA – 10 bit resolution; scalable to flow rate.	
<b>Selected Options</b>	<b>AU</b> Analogue Output:	Active 0-10V output (requires option PD or PM).	
	<b>CB</b> RS232 Communication:	RS232 (2-wire) Modbus protocol ASCII / RTU. All functionality and display information is available for communication. <b>CT:</b> TTL Intrinsically Safe	<b>CH:</b> RS485 2-wire <b>CI:</b> RS485 4-wire
	<b>HC</b> GRP Casing:	Panel cut-out: 115 x 98 mm (4.53" x 3.86") – WxH	
	<b>HA</b> Aluminium casing:	IP67 aluminium casing with one M20 and two PG9 cable entries. Dimensions: as HD	
	<b>HV</b> GRP Casing:	HD mounted direct on VFF	<b>HL</b> GRP Casing: HD mounted direct on LM Pelton wheel
	<b>OT</b> Pulse Output:	Passive transistor output. Scalable in relation to total: i.e. pulse per X quantity- maximum output frequency 64Hz. Pulse-width 7.8 or 2000 ms. OA: Active 24Vdc PNP	
	<b>OR</b> Pulse Output:	Electromechanical relay output – isolated; max 230Vac NO, 0.5A per relay; must be PF or PM	
	<b>PB</b> or <b>PC</b> Supply:	Lithium Battery, life time dependent upon settings. Average life time approx five years	
	<b>PD</b> Supply:	8-28 Vac/dc - sensor supply voltage 8 - 12 and 24Vdc - max. 50mA@24Vdc	
	<b>PL</b> Supply:	4-20mA loop powered from sensor	
	<b>PM</b> Supply:	2-24 Vac/dc or 115-240 Vac supply. The module contains an adjustable power supply to the sensor of 8-24VDC; maximum supply 50mA @ 24Vdc.	
	<b>SN</b> Mounting Stem:	303 SS Mounting Stem (M20(m) x 1" NPT(f))	
	<b>XI</b> Hazardous area approval:	EEx ia IIB T4 to CENELEC approval available	
	<b>ZB</b> LCD:	Transflective LCD with green LED backlight for full sunlight and darkness – safe area only.	


**Documentation:**

Operating & Maintenance Manual	HF112PEN_v0204_04
Conformity:	These products conform to LVD, EMC and optionally ATEX

## Instrument Specification Sheet