Calamba Water District
Production Department

Technical Specification

Maximum Working Pressure:	16 bar
Liquid temperature	0.1 to 50 ^{0}C
Precision Class	ISO4064 rev.2005, accuracy class 2
Configuration	compact - the display is built in to the unit
Power source	2D size Li-battery up to 15 years lifetime
Environmental Protection	IP 68, ambient operation temp. -25^{0}C up to +55^{0}C
Volume display options	1. Net (forward less reverse) 2. Forward only 3. Reverse only 4. Forward and reverse alternating
Data logger	volumes and alarms data (48KB,4013 data points)
Connections	2"- 6" flanged- flanged according to ISO BS10 and ANSI150
Severity levels	Mechanical class M1
Presuure loss	ΔP .016 Bar

Outputs

Analog Output	The analog output show the currently measured flow rate This output is a 4-20mA current loop (the end user must supply power to the unit) The analog output is programmable for forward and reverse flow
Digital (pulse) output	The digital (pulse) output is an open drain transistor output that provides pulse per quantity with these options 1. Two scaled forward and/or reverse mode pulses 2. One scaled forward pulse and one alarm frequency output 3. Measuring units of the output can be programmed different than displayed units pulse resolution will be shown on the display for each pulse separately

Dry contact output	The dry contact output is dual mechanical relay output that provides pulse per quantity with these options 1. Two scaled forward and/or reverse mode pulses 2. One scaled forward pulse and one alarm frequency output 3. Measuring units of the output can be programmed different than displayed units pulse resolution will be shown on the display for each pulse separately onsite power supply 5-35VDC is needed
SSR (Solid State Relay)	The SSR is dual electronic relay output that provides pulse per quantity with these options 1. Two scaled forward and/or reverse mode pulses 2. One scaled forward pulse and one alarm frequency output 3. Measuring units of the output can be programmed different than displayed units pulse resolution will be shown on the display for each pulse separately onsite power supply 5-35VDC is needed
Encoder Output	The encoder output is a serial communication protocol utilizing U11204 (sensus protocol) additional pulse output is available as an option
Modbus Protocol Output/ M-Bus	The Modbus protocol output has the following available functions 1. Alarms (battery, empty pipe) 2. AMR serial no. 3. Real time clock (RTC) 4. Volume units 5. Flow rate units 6. Current flow 7. Flow direction 8. Forward and reverse version 9. Flow and volume resolution

Digital Display

The vacuum sealed (IP68) digital display is equipped with the following
a. Forward & reverse flow notification symbol
b. 12 digits accumulation volume
c. Programmable decimal point for high resolution
d. 4 digits for flow rate with automatic floating decimal point
e. Programmable flow rate units available
g. Alarm display is identical for all sizes or models
The transparent LCD digital display glass lens is made of molded
heat treated 6mm / 1/4" glass to ensure against scratching and breakage
serial number is permanently stamped in the electronic digital display

Other features

Excellent long-term stability and realibilty
Rugged mechanical design -submersible (IP68)
Bi- directional- including bi-directional outputs (digital and analog)
Flexible data formats including flow directions flow rates and volumes
AMR and cellular network ready with alerts and static features
Multiline LCD
Programmable Display (units and outputs resolution)
EMI/RFI protection

TECHNICAL INFORMATION AND DIMENSIONS

Nominal size	mm	50	80	100	150
	inch	2	3	4	6
L - Length without couplings (mm)		200	225	250	300
W- Width (mm)		165	200	220	285
H- Height (mm)		194	210	223	282
Weight (kg) -cast iron body		9	13	15	32
Flow rate m3/h		DN 50-2"	DN 80-3"	DN 100-4"	DN 150-6"
Q1 Minimum flow rate		0.080	0.125	0.200	0.500
Q2 Transistional flow rate		0.125	0.200	0.320	0.800
Q3 Permanent flow rate		40	63	100	250
Q4 Overload flow rate		50	80	125	313
Q3/Q1 ®		500	500	500	500
Starting flow		0.025	0.025	0.025	0.2

WARRANTY:

Ten years (10) against factory defect and product support