



MONITA R SERIES

Remote Meter Reading

For Remote Meter Reading and Logging of Pulse Meters with Alarm Notifications

At last an intelligent Automatic Meter Reading product that not only reads your meter but alarms on zero usage or a maximum demand. With the data logging option full consumption profiles can be collected. Great for irrigation and Key Account meters, and housed in a compact self powered, weatherproof housing. Perfect for the water and gas industries for large users where the detection of the failure of the meter could pay for the product many times over. Also suitable for existing AMR systems and very remote meters where it is far more economical to use the Monita R Series.

OPERATION

The *Monita* is simply connected up to four (4) pulse cable meters. The Monita is programmed via the Infra Red Cable and PC software. The Monita record counts over time, so that the counts or readings collected depend on the logging interval selected, which range from 1 second to 99 minutes. Readings can be called in via SMS or via an email. The email will send the logging file which is then processed to create an ASCII file for importing into databases, spreadsheets etc.

FEATURES

- Rugged purpose built product
- Up to 4 meter inputs
- P.I.N. programming security
- SMS and or Email Meter Readings
- Waterproof to 1 metre. (I.P. 67)
- 5-10 Year stand alone battery life*
- Data Logging (Max 2 million records)
- Maximum Demand Alarm
- Zero Usage Alarm
- Ideally suited for Key Account customers
- Ideally suited for irrigation meters
- External Aerial option

APPLICATIONS

- Key Account Meters
- Irrigation Meters
- Very Remote Meters
- Pipelines



INSTALLATION

The *Monita* requires the installation of a suitable SIM card. If email notification is required a suitable network must be used with GPRS capability. Meters are then connected to the terminal block of the product using the meter cables supplied by the meter manufacturer.

TECHNICAL SPECIFICATION

Meter Inputs	Unpowered - Isolated Voltage Free Inputs	Up to 4 inputs in Short Cable Mode (Software Selectable) Fast switching Mode Lower noise immunity Max cable input cable length 4 metres.
		<p>Switch Type Voltage Free switch with Normally Open (NO) contacts with minimal debounce</p> <p>Min pulse width (N/O) 2mS</p> <p>Min Pulse Separation 9mS</p> <p>Input impedance >10KOhms</p> <p>Max Input Frequency 90Hz @20% Positive Duty Cycle 55Hz @50% Positive Duty Cycle</p> <p>Edge Detection-Open to Closed(NO) or Closed to Open(NC)</p>
	Up to 4 Inputs in Long Cable Mode (Software selectable) Slow switching Mode Higher noise immunity Max cable length 10 meters.	
	Wetting Current	<p>Instantaneous Pulse Switch Current at Make 270µA</p> <p>Continuous Pulse Switch Current During Make 2.9µA</p> <p>Instantaneous Pulse Input Impedance at Make 10K Ohm</p> <p>Continuous Pulse Input Impedance During Make 910K Ohm</p> <p>Input Circuit Capacitance 10nF or 57µF</p> <p>DC Wetting Voltage Applied to Pulse Switch 2.7V</p>
Communications	Serial	Proprietary infrared interface at 115kbps for connection to Laptop or desktop PC for downloads or logger configuration. Requires Infra Red Cable - Part Number MTIRC10
	Internal GSM Modem	Dual band GSM cellular device 900/1800 Mhz Or 850/1900 Mhz Short Message Service (SMS) GPRS Class B (4+1) up to 85.6 kbps as email Configurable for up to 24 calls per day. 5 Email addresses of max 30 characters 5 SMS numbers
Display		Option for a LCD 2 x 8 Display.
Logging Features	Memory	0, 100K or 2 Million Records
	Frequency	1 to 65,536 seconds
	Alarms	Low or Zero usage in a period High Usage in a period Return of State (When used as an alarm input)

	Device ID	Up to 20 Alphanumeric characters/ Factory set 10 digit numeric value	
	Input ID	Each Input can have an alphanumeric value of up to 20 characters	
	Clock	On board 24 hour real time clock with date facility	
Physical	Dimensions	82 mm Ø x 170 mm	
	Construction	Base & Sides	U.V. Stabilized 20% Glass Filled Nylon
		Top	U.V. Stabilized Polycarbonate
		Cap	U.V. Stabilized Polyurethane (Santoprene)
	Weight	470 gms	
	Operating Temperature	-20 °C to +75°C for all logger functions -20° C to +55°C for GSM functions	
	Environmental Protection	I.P 67 Submersible to 1 metre	
	Internal Power	Lithium -Ion cell operational for upto 5 years. Low battery alarm in data packet at call in.(Email or SMS)	
Mounting	Option 1 - Stainless Steel "L" Bracket Option 2 - Glass filled Nylon "L" bracket Option 3 - Pole Mount Base with 25mm BSP threaded adaptor		
*Battery Life	Battery Life is a function of the Logging Interval, Call in Frequency and temperature. Typically @ 20° C, with a 15 Minute Logging Interval the R Series will make up to 2000 calls or the shelf life of the battery, which is 10 years, which ever is lesser.		
Tamper	Case open detection and cable cut detection with notification by SMS or email. Needs a three wire connection		



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