pulsar
MEASUREMENT

THE ULTIMATE CONTROLLER

Technical Specifications:

A control system that combines ultrasonic level and flow measurement and Remote Terminal Unit and advanced pump control in one economic, easily programmed, modular unit.

PHYSICAL: MOUNTING OPTION SPECIFIC

Mounting Option:	Standard Wall Mount:	Fascia Mount:
Controller Body Dimensions:	225 mm H x 262 mm W x 105 mm D (8.9 in x 10.3 in x 4.1 in)	124 mm H X 224 mm W x 114 mm D (4.9 in x 8.8 in x 4.5 in). 116 mm x 179 mm (4.6 in x 7.05 in) cut out, 34 mm (1.3 in) in front of panel, 80 mm (3.1 in) behind
Weight:	Nominal 2 kg (4.4 lb)	Nominal 1.5 kg (3.3 lb)
Enclosure Material / Description:	Polycarbonate	Polycarbonate / stainless steel
Cable Entry Detail:	11 off; 9 x M20 and 2 x M16 knockout underside	
Transducer Cable Extensions:		2-core screened, 1,000 m (3,280 ft) max
Mounting:	Indoor / Outdoor	Indoor, 2,000 m (6,561 ft) altitude max
IP Rating:	IP65, pollution degree 2, IK06 at -20 °C (-4 °F)	IP64 (front of panel)

ENVIRONMENTAL

Max. & Min. Temperature (Electronics):	-30 °C to +55 °C (-22 °F to +131 °F) ambient
Flammable Atmosphere Approval:	For installation in non-flammable area only. Most compatible transducers suitable for flammable atmospheres. See sensor / transducer datasheet or brochure.
CE Approval:	See EU Declaration of Conformity

PERFORMANCE

Accuracy:	±0.25% of the measured range or 6 mm (0.2 in), whichever is greater. ±2 mm (0.08 in) for dBR16 mmWAVE RADAR
Resolution:	±0.1% of the measured range or 2 mm (0.08 in), whichever is greater
Measurement Range:	Dependent on transducer, max 40 m (131.2 ft) (dB40), min zero (dBMACH3)
Rate Response:	Fully Adjustable
Echo Processing:	DATEM (Digital Adaptive Tracking of Echo Movement)

PROGRAMMING

Onboard Programming:	By capacitive touchscreen
Data Security & Integrity:	Security: via passcode (user selectable / adjustable). Integrity: non-volatile memory
Memory:	2 (1 x internal) 4 GB supplied as standard (up to 32 GB optional)

SUPPLY

AC Supply:	Universal 85-264 V AC (400 Hz), 50 W maximum input power (2 A 'T' 20 mm (0.8 in) fuse)
DC Supply:	22-28 V DC (internally fused 2 A 'T')

CONNECTIVITY

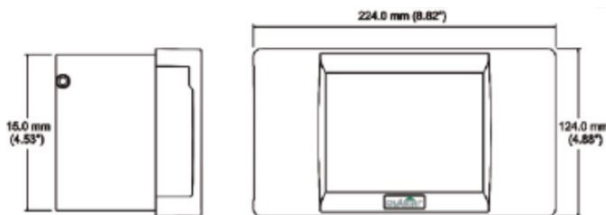|	
Mini USB (External):	Connecting of laptop / PC, located under a flap on side of the unit
USB A Socket (Internal):	Connecting of peripherals such as modems
'D' Type 9 Pin (Internal):	Connecting of optional comms (Modbus RTU, Profibus)
Camera Port (Internal):	Power and comms of Pulsar camera

RTU / COMMUNICATIONS

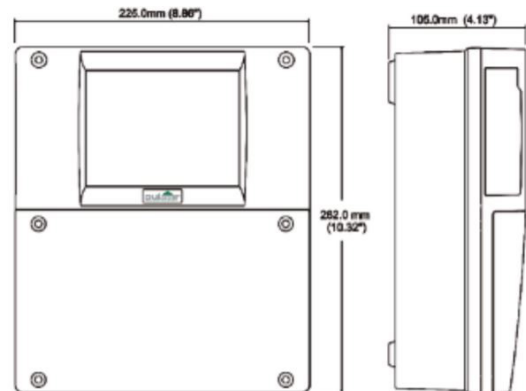|	
Protocol Supported:	DNP3 Level 4, WITS Protocol 1.1 via Ethernet or mode (optional) Modbus RTU, TCP/IP (optional), Profibus V1 (optional), GSM/GPRS/PSTN, RS485 Pulsar expansion bus

INPUTS

Digital Inputs:	8 digital inputs, min input voltage 5 V DC, max input voltage, 30 V DC (max current 3 mA). 24 V DC input supply maximum total current 24 mA
Analog Inputs:	2 off 4-20mA or 0-20mA sink or source (user programmable and adjustable) 0.1% resolution, open circuit voltage (source mode) at 4-20mA, 22 V at 20mA, 18 V

OUTPUTS

Digital Outputs:	8 Form C (SPDT), rated at 5 A at 240 V AC
Analog Outputs:	2 off, isolated (floating) outputs (to 150 V) 4-20mA or 0-20mA into 1 kΩ. 0.1% resolution
Display:	144.8 mm (5.7 in) TFT color display with a capacitive touchscreen

Ultimate Controller fascia mount drawing front and side   Ultimate Controller wall mount drawing front and side