

# QUANTUM 2

## Technical Specifications:

Pulsar's Quantum 2 pump station controller provides alarms, including a unique alarm warning of 'time to spill' in critical area, and resets tripped pumps automatically. The Quantum 2 is a fully featured pump controller using Pulsar's non-contacting ultrasonic technology to provide solid performance and sophisticated level management.



### PHYSICAL: MOUNTING OPTION SPECIFIC

<b>Mounting Option:</b>	<b>Fascia Mount:</b>
<b>Controller Body Dimensions:</b>	200 mm x 112 mm (7.9 in x 4.4 in) front, 165 mm x 105 mm (6.5 in x 4.1 in) cut-out
<b>Weight:</b>	Nominal 1.3 kg (2.9 lb)
<b>Enclosure Material/Description:</b>	Stainless steel and polycarbonate, flame resistant to UL94 V0
<b>Transducer Cable Extensions:</b>	Twin Screened
<b>Maximum Separation:</b>	1,000 m (3,280 ft)

### ENVIRONMENTAL

<b>IP Rating:</b>	IP64
<b>Max. &amp; Min. Temperature (Electronics):</b>	-20 °C to +55 °C (-4 °F to +131 °F)
<b>Flammable Atmosphere Approval:</b>	Safe area: compatible with approved dB transducers allowing installation to zone 0
<b>CE Approval:</b>	EMC approval to BS EN 50081-1: 1992 for emissions and BS EN50082:1995 for immunity and to BS EN61010-1:1993 for low voltage directive.
<b>UL Approval:</b>	UL Listed. UL Listed to Canadian safety standards. Certificate Number: E257330
<b>Power Supply:</b>	115 V AC +5%/-10% 50/60 Hz, 220 V AC +5%/-10%, 18-36 V DC 50/60 Hz

### PERFORMANCE

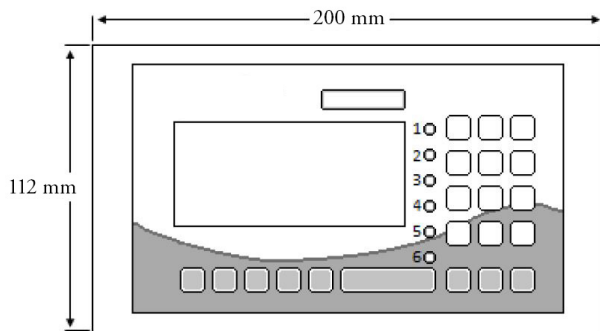
<b>Accuracy:</b>	+0.25% of the measured range or 6 mm (0.2 in), whichever is greater
<b>Resolution:</b>	dBMA3 0.3 mm (0.01 in), dB3 0.5 mm (0.02 in), dB6 and dB10 1 mm (0.04 in), dB15 1.5 mm (0.06 in), dB25 2.5 mm (0.1 in), dB40 5 mm (0.2 in)
<b>Range:</b>	Depending upon transducer, from 0 mm to 40 m (0 in to 131.2 ft)
<b>Echo Processing:</b>	Patented DATEM (Digital Adaptive Tracking of Echo Movement)
<b>Digital Communications:</b>	RS485 Modbus RTU or Profibus DP V0 or V1

### OUTPUTS / INPUTS

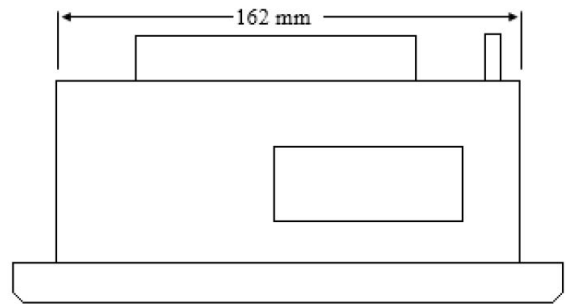
<b>Volt-free Contacts:</b>	10 in total. Relays 1-5 form C (SPDT) 5 A, 220 V AC. Relays 6-10 form C (SPDT) 3 A, 220 V AC
<b>Digital Inputs:</b>	7 NO or NC with 24 V DC internal supply, available max. 20mA
<b>Analog Output (Adjustable):</b>	2 off Isolated output of 4-20mA or 0-20mA into 500 Ω (user programmable and adjustable) 0.1% resolution
<b>Analog Input:</b>	Isolated input for loop-powered device. 4-20mA source. NB: Active input on request
<b>Serial Output:</b>	RS232 via RJ11 port
<b>Display:</b>	6 digits plus 12 character text, plus bar graph with direction indicators, remote communicator identifier, and program / run / test mode indicators

## PROGRAMMING

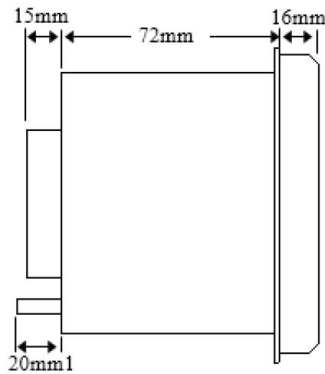
<b>Onboard Programming:</b>	Standard with integral keypad
<b>PC Programming:</b>	Via RS232 (RJ11 port)
<b>Programming Security:</b>	Via passcode (user selectable and adjustable)
<b>Programmed Data Integrity:</b>	Via non-volatile RAM, plus backup



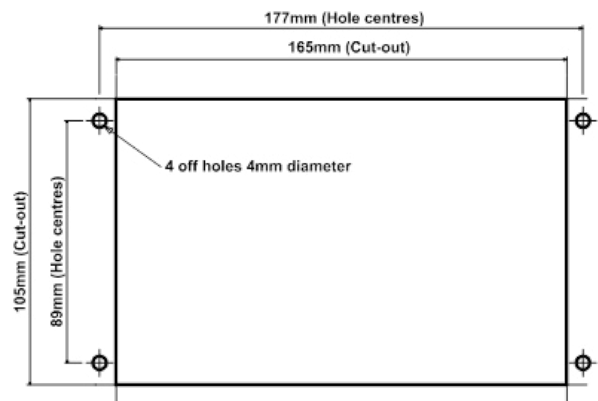
Quantum 2 Front Drawing



Quantum 2 Top Drawing



Quantum 2 Side Drawing



Cut-Out Dimensions



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