

# ZENITH

## Technical Specifications:

Pulsar's Zenith is a high specification, pumping station management system. Pulsar's proven, non-contacting, ultrasonic technology provides almost all known pumping routines in an easy-to-use package. By combining advanced ultrasonic level measurement with the control and monitoring of pumps, and providing many other control functions, it is possible to eliminate a PLC by using Zenith in a smaller station.



### PHYSICAL

<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 kg (2.2 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>	For installation in non-flammable area only. Most compatible transducers suitable for flammable atmospheres. See sensor / transducer datasheet or brochure.
<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

### PERFORMANCE

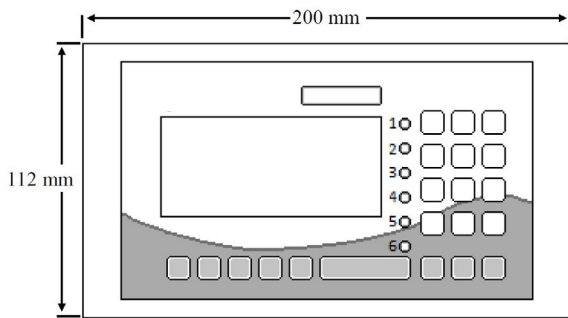
<b>Accuracy:</b>	+0.25% of the measured range or 6 mm whichever is greater
<b>Resolution:</b>	dBMA3 0.3 mm (0.01 in), dB3 0.5 mm (0.02 in), dB6 and dB10 1 mm (0.04 in), dB15 1.5 mm (0.06 in), dB25 2.5 mm (0.1 in), dB40 5 mm (0.2 in)
<b>Range:</b>	Depending upon transducer, from 125 mm to 40 m (4.9 in 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

### PROGRAMMING

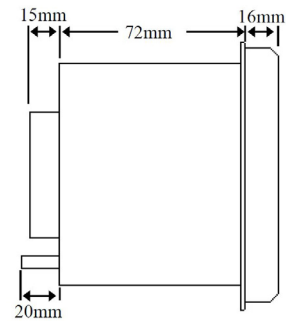
<b>Onboard Programming:</b>	Standard with integral keypad
<b>PC Programming:</b>	Via RS232 (RJ11 port)
<b>Programming Security:</b>	Via password (user selectable and adjustable)
<b>Programmed Data Integrity:</b>	Via non-volatile RAM, plus backup

## INPUTS / OUTPUTS

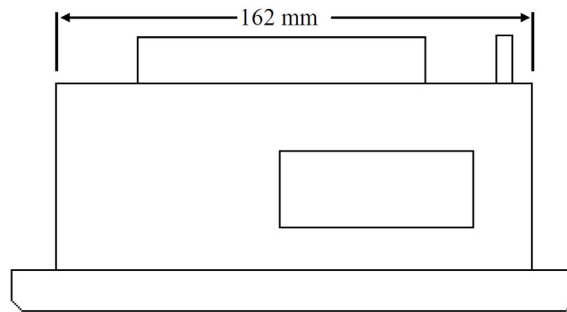
<b>Volt-free Contacts::</b>	6 form "C" (SPDT) 5A, 220 V AC
<b>Digital Inputs:</b>	7 NO or NC with 24 V DC internal supply, available max. 20mA
<b>Analog Output (Adjustable):</b>	Isolated output of 4-20mA or 0-20mA into 500 Ω (user programmable and adjustable) 0.1% resolution
<b>Analog Input:</b>	Isolated input for loop-powered device. 4-20mA source
<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



Zenith Drawing Front



Zenith Drawing Side



Zenith Drawing Top



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