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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

| Mounting Option:                     | Fascia Mount:  |
|--------------------------------------|--|
| Controller Body<br>Dimensions:       | 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 |
| Weight:                              | Nominal 1 kg (2.2 lb)  |
| Enclosure Material /<br>Description: | Stainless steel and polycarbonate, flame resistant to UL94 V0                      |
| Transducer Cable<br>Extensions:      | Twin Screened  |
| Maximum Separation:                  | 1,000 m (3,280 ft)   |

#### **ENVIRONMENTAL**

| IP Rating:                                | IP64  |
|---|---|
| Max. & Min. Temperature<br>(Electronics): | -20 °C to +55 °C (-4 °F to +131 °F)   |
| Flammable Atmosphere<br>Approval:         | For installation in non-flammable area only. Most compatible transducers suitable for flammable atmospheres. See sensor / transducer datasheet or brochure. |
| CE Approval:                              | 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                       |
| UL Approval:                              | UL Listed. UL Listed to Canadian safety standards. Certificate Number: E257330  |
| Power Supply:                             | 115 V AC +5%/ -10% 50/60 Hz, 220 V AC +5%/ -10%, 18-36 V DC   |

#### PERFORMANCE

| Accuracy:                      | +0.25% of the measured range or 6 mm whichever is greater  |
|--------------------------------|--|
| Resolution:                    | dBMACH3 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) |
| Range:                         | Depending upon transducer, from 125 mm to 40 m (4.9 in to 131.2 ft)  |
| Echo Processing:               | Patented DATEM (Digital Adaptive Tracking of Echo Movement)  |
| <b>Digital Communications:</b> | RS485 Modbus RTU or Profibus DP V0 or V1   |

### PROGRAMMING

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





15mm

20mm

72mm

Zenith Drawing Side

#### **INPUTS / OUTPUTS**

| Volt-free Contacts::           | 6 form "C" (SPDT) 5A, 220 V AC  |
|--------------------------------|---|
| Digital Inputs:                | 7 NO or NC with 24 V DC internal supply, available max. 20mA  |
| Analog Output<br>(Adjustable): | Isolated output of 4-20mA or 0-20mA into 500 $\Omega$ (user programmable and adjustable) 0.1% resolution  |
| Analog Input:                  | Isolated input for loop-powered device. 4-20mA source   |
| Serial Output:                 | RS232 via RJ11 port   |
| Display:                       | 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 Top



#### I N F O @ P U L S A R M E A S U R E M E N T . C O M

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