

# Sludge Finder 2

## Continuous Sludge Blanket Level Measurement

Pulsar's Sludge Finder 2 is a controller and transducer system that provides reliable continuous sludge blanket level measurement. It is used in thousands of applications worldwide for detecting sludge blanket levels in primary, secondary, tertiary settlement tanks either with stationary or travelling bridges, clarifiers, gravity thickeners or sequencing batch reactor (SBR) systems.



## Technical Specification Sludge Finder 2 Controller:

PHYSICAL:	
Dimensions:	235 x 184 x 120mm (9.25 x 7.24 x 4.72in) Wall mount only.
Weight:	Nominal 1kg (2.2lbs)
Enclosure material/description:	Polycarbonate, flame resistant to UL94-5V
Cable entry detail:	10 cable entry knock outs, 5 x M20 and 1 x M16 underside. 4 x PG11 at rear
Transducer cable extensions:	2 twisted pair 0.5mm <sup>2</sup> with overall screen
Maximum separation:	200m (656ft)
ENVIRONMENTAL:	
Enclosure protection:	IP65 / NEMA 4X
Max. and min. temperature (electronics):	-20°C to +50°C (-4°F to +122°F)
APPROVALS:	
CE approvals:	2014/30/EU & 2014/35/EU - EMC Directive. Standards applied: EN 61010-1:2010 / EN 61326-1:2013 / EN 55011 / EN 61000 (3-2 / 3-3 / 4-2 / 4-3 / 4-4 / 4-5 / 4-6 / 4-7 / 4-11)
ATEX approval:	Controller must be within a safe area. See <a href="#">dB transducers</a> for level sensor approvals
OUTPUTS:	
Analogue outputs:	2 off isolated (to 150V floating) output of 4-20mA or 0-20mA into 1kΩ (user programmable and adjustable) 0.1% resolution
Digital output:	Half duplex RS232
Volt-free contacts, number & rating:	6 form "C" (SPDT) rated at 5A at 115V ac
Display:	192 x 128 pixel illuminated graphical display showing a variety of screens including echo profile. Fully programmable display options, integral keypad with menu navigation keys.
Radio modem (optional):	4-20mA using wireless exempt frequencies. Maximum range 500m (1640ft) line-of-sight
Communication bus (optional):	RS485 Modbus RTU/ASCII or Profibus DPV0 or DPV1 (slave device)
PROGRAMMING:	
On-board programming:	By integral keypad.
PC programming:	Via RS232
Programming security:	Via passcode (user selectable and adjustable)
Programmed data integrity:	Via non-volatile memory
PC software:	Sludge Finder PC within PC Software Suite - compatible with XP (service pack 3), Windows 7/8/10
SUPPLY:	
Operating voltage:	Universal 100-240V ac 50-60Hz, 22-28Vdc.
Power consumption:	20W maximum power (typically 11W)
Fuse:	2A slow blow



[www.pulsar-pm.com](http://www.pulsar-pm.com)

*Pulsar Process Measurement Ltd. operates a policy of constant development and improvement and reserves the right to amend technical details as necessary.*

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## Technical Specification Viper Transducer:



### PHYSICAL:

<b>Sensor body dimensions:</b>	Diameter 78 x 195mm (3.07 x 7.67in)
<b>Sensor body weight:</b>	Nominal 1.5kg (3.3lbs)
<b>Sensor body material:</b>	Valox 357. Wiper blade - Stainless steel
<b>Transducer cable extensions:</b>	4-core screened
<b>Maximum separation:</b>	200m (656ft)

### ENVIRONMENTAL:

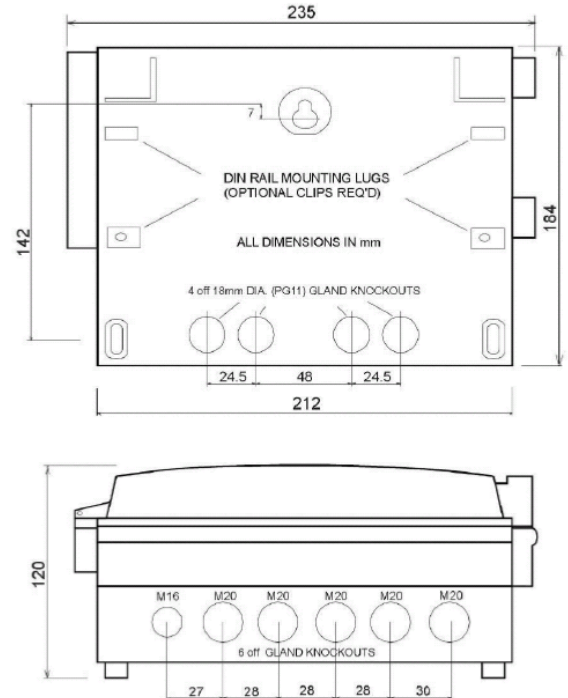
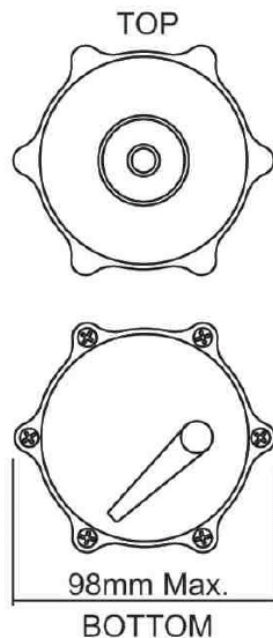
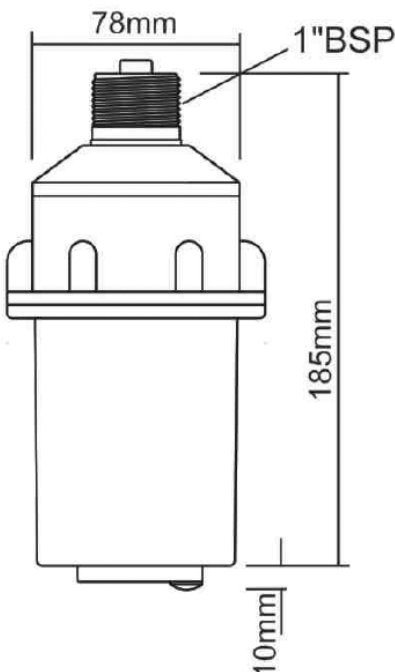
<b>Enclosure protection:</b>	IP68
<b>Max. and min. temperature (electronics):</b>	-20°C to +50°C (-4°F to +122°F)

### APPROVALS:

<b>CE approvals:</b>	2014/30/EU & 2014/35/EU - EMC Directive. Standards applied: EN 61010-1:2010 / EN 61326-1:2013 / EN 55011 / EN 61000 (3-2 / 3-3 / 4-2 / 4-3 / 4-4 / 4-5 / 4-6 / 4-7 / 4-11)
<b>ATEX approval:</b>	Viper transducer must be within a safe area

### PERFORMANCE:

<b>Accuracy:</b>	0.25% of the measured range or 10mm/0.39in (whichever is greater)
<b>Resolution:</b>	0.25% of the measured range or 10mm/0.39in (whichever is greater)
<b>Max. range:</b>	10m (32.8ft)
<b>Min. range:</b>	0.3m (0.98ft)
<b>Minimum sludge density:</b>	0.5% concentration



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