

# 8100 Monitor for Sludge Blanket Detection



*Partech Instruments is a specialist company providing analysers and instruments for monitoring and control in; wastewater, raw water, industrial effluent and surface water applications.*

*Whatever the application and whatever the location, Partech will supply an effective and efficient service and a support package tailored to suit the customer*

The 8100 Monitor provides a reliable method of detecting the sludge blanket level in clarifiers and settlement tanks, or increasing levels of suspended solids or sludge density in a large range of processes.

Control of the sludge blanket level is essential to ensure discharge consent compliance and efficient control of the treatment process. If the sludge blanket in a settlement tank is allowed to rise close to the surface there is a danger that solids will leave the tank and contaminate the next process stage or be discharged into the water course. Alternatively if the sludge blanket is not allowed to stabilise or form a blanket or is pumped out too frequently the settlement process does not take place at all and solids will remain in suspension. Additionally there is a danger that thin sludge or water will be pumped from the bottom of the tank into the sludge handling system thus reducing the effectiveness of that process.

The 8100 Monitor is suitable for mounting outdoors on the bridge of settlement tanks, as the enclosure is IP65 rated and no outer enclosure is required. Provision must be made for transmission of the output signal to the control system; this is normally possible via spare slip rings. Where this is not possible a radio telemetry option is available, allowing transmission directly to the control system without the need for installation of cables.



The 8100 Monitor is designed to work with Partech's range of infrared sensors to provide an alarm output to aid in the control of Sludge Blanket/Water interfaces found in a variety of settlement tanks.

The 8100 Monitor provides a high alarm to indicate the presence of the sludge blanket at the point where the sensor is located. An additional system fault alarm is also provided.

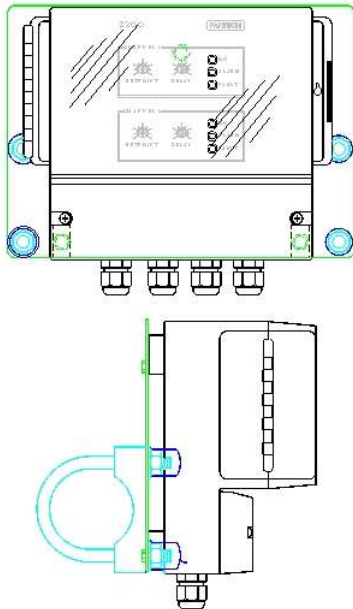
The correct selection of infrared sensor enables the detection of the sludge/water interface on Final Settlement Tanks or Primary Tank even when the settlement process is 'upset' and the interface has become disturbed.

Guidance on sensor selection can be found on both the sensor datasheet and from your Partech representative.

## Compatible Sensors

- Soli-Tech 20 Sensor
- Infrared Sensors

## 8100 Monitor for Sludge Blanket Detection



**Monitor shown with mounting bracket part number 171280**

### Part Numbers

163000	8100 Monitor
171350	8100 Monitor, 115VAC Power Supply Option
171370	8100 Monitor, 12VDC Power Supply Option
171360	8100 Monitor, 24VDC Power Supply Option
171280	Mounting Bracket for 8100 Monitor



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The company reserves the right to alter the specification without prior notice. E&OE

### Physical

Weight	1 kg
Dimensions (h x w x d)	160 x 195 x 105 mm
Enclosure Rating	IP65
Enclosure Material	ABS
Cable Entries	4 x PG11 (cable 5 to 10 mm)
Cable Size	Max Conductor Cross Section 2.5 mm <sup>2</sup>

### Environmental Data

Operating Temperature	-20 to 60°C
Storage Temperature	-20 to 60°C
Location	Indoor or Outdoor

### Power Supply

Voltage	115/230 VAC +10/-15% Field Selectable, 12 and 24 VDC options available
Power Consumption	8W
Fuse	100 mA

### Analog Output

Number	0
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### Measurement Details

Response Time	1 to 90 seconds
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### Relay Outputs and Set Points

No	2
Contacts	SPCO
Rating	5A @ 230 VAC, 5A@125 VDC
Type	1 High Blanket Alarm, 1 Fault Alarm
Adjustment	5 - 95% Sensor Range
Local Annunciation	Green LED for Normal, Red LED for Blanket Alarm, Amber LED for Fault

### Serial Communications

RS232	Pending
Modbus	Pending
Profibus	Pending

### User Interface

Display	3 LED's
Setup	Front Panel Trim Adjustments

### Software

Remote Programming	No
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### Mounting

Type	Surface
Bracket/Plate	Part Number 171280 for attachment to handrail

### Approvals

EMC Standard	EN50082-1 (1994) Residential, Commercial, Light Industry
EMC Directive	89/336/EEC
Low Voltage Directive	73/23/EEC



Thank you for reading this data sheet.

For pricing or for further information, please contact us at our UK Office, using the details below.



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Please note - Product designs and specifications are subject to change without notice. The user is responsible for determining the suitability of this product.