

## PERMANENT INSTRUMENT

# ACTEON 2054-SB3-T and ACTEON 2055-SB50-T

### New field transmitters for sludge blanket and temperature detection

- Sturdy, watertight, easy to install
- Widescreen graphic display: instant measurements, trend line, calibration state
- Quick and simple intuitive programming
- 4-20 mA outputs, programmable relays



Simple, sturdy and reliable like its legendary predecessor, the APF series, with additional digital intelligence and leading-edge technology.

Technical specifications	
<b>Ranges</b>	0.0 to 100.0% (VB20 0-3 g/L and VB5 0-50 g/L sensors)
<b>Measurement accuracy</b>	±2%
<b>Temperature measurement range</b>	-10.00 to +50.00°C
<b>Temperature measurement accuracy (°C)</b>	±0.1°C
<b>Casing</b>	ABS
<b>Protection</b>	IP 65
<b>Operating temperature</b>	-25°C to +55°C
<b>Dimensions (L x W x D) /Weight</b>	173 x 195 x 103mm / 1.5kg
<b>Display</b>	Widescreen back-lit graphic display: 240 x 128 pixels (108 x 58mm)
<b>Power supply</b>	230/115 Vac 60Hz, Optional: 24Vdc
<b>Max power consumption</b>	10VA
<b>4-20mA outputs</b>	2 galvanic isolation outputs (max load 700ohms): - Adjustable from 0.00 to 20.00g/L or from 0.00 to 50.00g/L - Adjustable from -10.00°C to +50.00°C
<b>Relay outputs</b>	2 relays that can be configured in 2 different modes: - Adjustment in alarm mode (1 sludge blanket and 1 temperature (°C) threshold) - Adjustment in adjustment mode (2 sludge blanket thresholds with 2 relays)

The standard ACTEON 2054 and 2055 units come with a VB5 or VB20 sensor connected to 10 metres of cable.

### Fields of application:

- A reading of 100% indicates ultra-clear water while water with large amounts of suspended matter (concentrated sludge) will display 0% (any light is entirely absorbed).
- Using the new ACTEON 2054 and 2055 as fixed units will optimise sludge level detection in settling tanks: Wastewater treatment (primary and secondary settling tanks)

### Applications in oil separators

## Sludge blanket and temperature sensor:

PONCIR-VB5-10 and PONCIR-VB20-10

- **Measurement principle:** Optical absorption of infrared light, regulated and pulsed emission (10Hz frequency)
- **Dimensions:** Length: 210mm
- **Weight:** 1.2kg
- **Materials:** PVC and special glass, IP68
- **Temperature compensation (°C) :** automatic per CTN of +5 to +30°C
- **Emission wavelength:** 950nm (infrared)
- **Cable:** Multiple coated wires, polyurethane sheath. 10m standard length (up to 100m on request)

**Installation options:** *Fixed sensor-holder perch, accessories for in-pipe installation*



## The SB5 and SB20 optical sensors consist of three parts

### The head of the sensor

The sensor is cylindrical and has a diametral cavity with parallel walls (optical length 5mm [VB5] or 20mm [SB20]). Two quartz disks mounted on ring-type joints let through the radiation and protect the different diodes. This assembly absorbs thermal shocks and allows the sensor to operate up to 100°C.

### The body of the sensor

Equipped with a set of electronic boards, diode feeds and signal and amplification processors, the body of the sensor can be positioned up to 100m from the transmitter sensor.

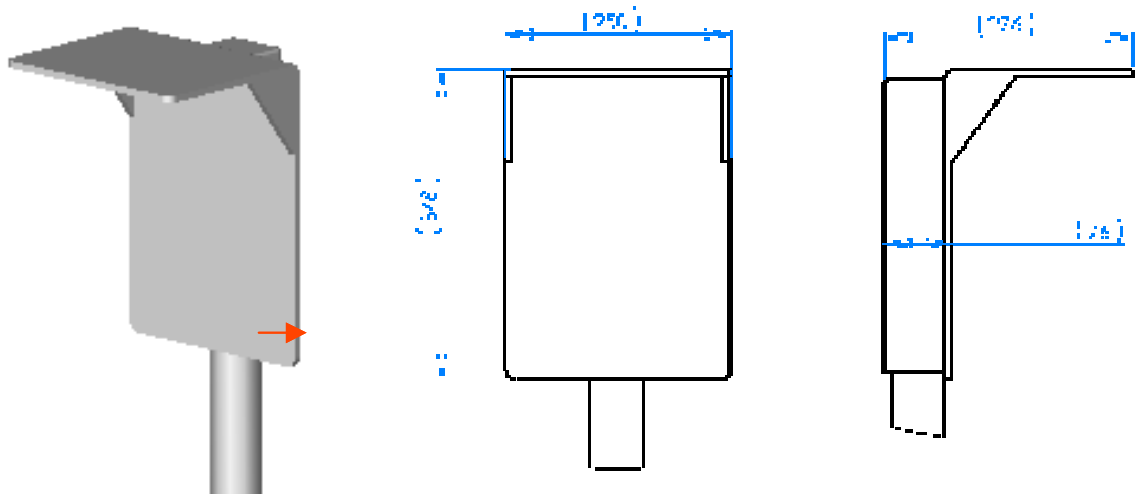
### The sleeve

This is where the electronic boards are connected to the coated cable. A cable gland is used to keep it watertight.

## Temperature Sensor:

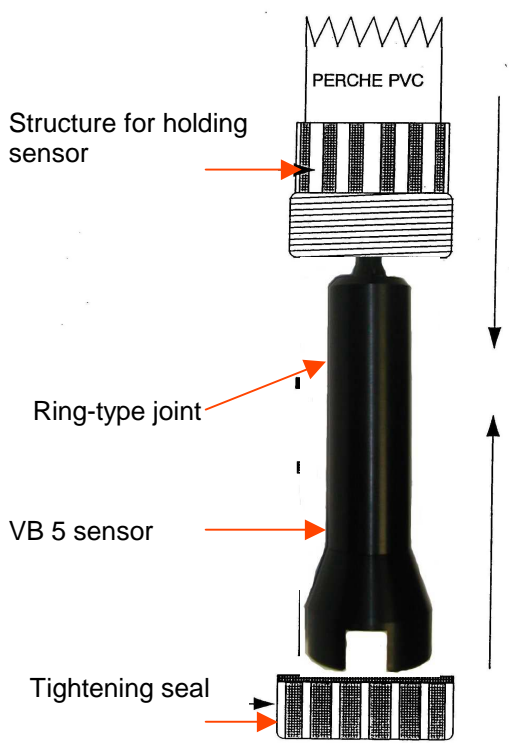
Delrin, Stainless steel, Silicone - IP68  
 Dimensions: Diameter 3mm (sensor), Length 115mm  
 Weight: 40g  
 Cable: 10m standard length

**Accessories for electronic unit installation:**



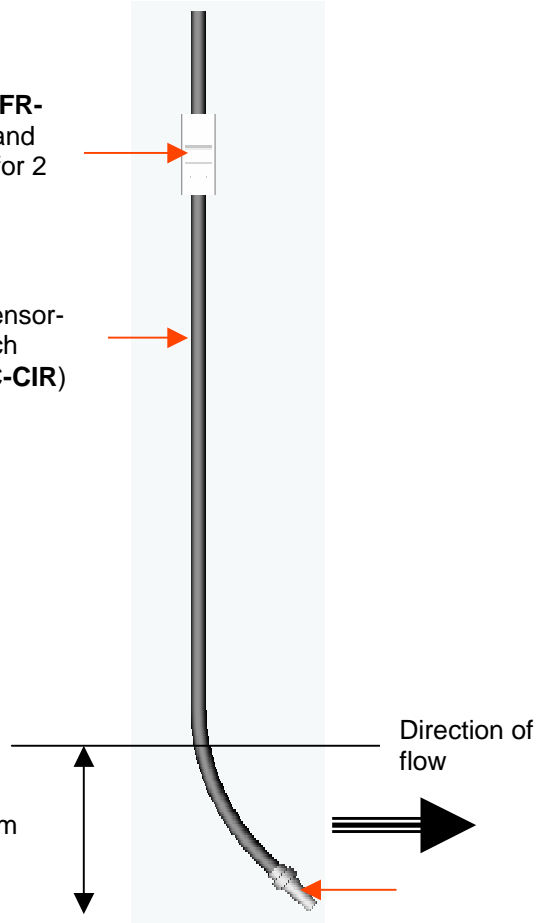
Hood mount for the ACTEON 2054 and 2055 transmitter (**PON-PDPCV-1** for 1 transmitter and **PON-PDPCV-2** for 2 transmitters).

**Accessories for sensor installation in tanks and open canals:**



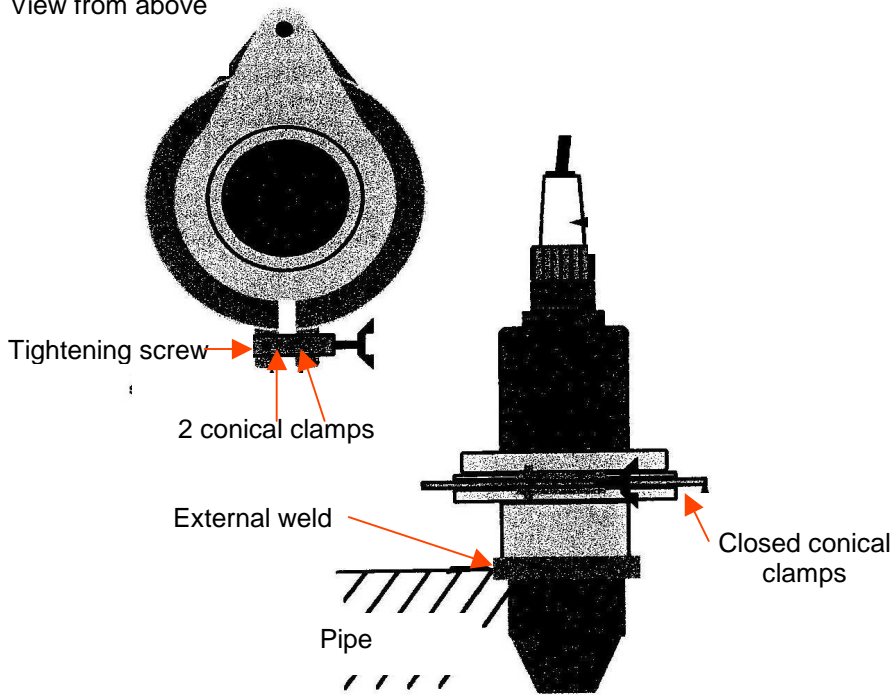
Stainless steel mount (**PONSPFR-1C** for 1 perch and **PONSPFR-2C** for 2 perches)

Elbowed Sensor-Holder Perch (**PONPPCC-CIR**)



**Accessories for sensor installation in pipes:**

View from above



VB5 sensor for in-pipe installation with a quick mounting/dismounting system using conical coupling clamps