

# Boiler Pressure Regulator

# BPR2000

- Simple and low cost installation
- Maintenance free
- Solid State Circuitry
- No mechanical parts - providing high reliability
- Robust VRP Transducer
- Increased sensitivity ideal for flue gas draught measurement
- Self Contained Transmitter/Controller
- Weatherproof aluminium enclosure
- CE Certification

## DESCRIPTION:

BPR2000 is a 3-point UP/DOWN Draught regulator especially designed for incinerator, cremator and boiler use. BPR2000 contains a capacitive sensor cell where all parts are made of stainless steel or ceramic. The internal part of this type of cell is temperature compensated. BPR2000 is typically used to control a damper in the flue channel ahead of an extractor. This way the underpressure in the combustion chamber is stabilised independent of stack-draft, pressure drop past the heat exchange section and burner behaviour.

## SPECIFICATIONS

### Electrical

Supply voltage: 230Vac  $\pm$  10% 50/60 Hz  
 Analogue output: 4-20mA 0-1mA switch selectable. Max insertion 600ohm or 0-10V dc. Max current 5.0 mA  
 Damping filter time constant: 0.5 to 5 seconds, switch selectable

### Control Board (where fitted)

Control switching output: Solid-state relays, 12-80Vac or 80-240Vac (option) 2 ampere, resistive.  
 Damping filter time constant: 0.5 to 5 seconds, switch selectable.  
 Pressure Ranges: 5 to 1000 mm water gauge. Gauge or differential (50 Pa - 10 KPa)

### Pressure Media

Typically air or similar non-conducting gasses.

### Transducer

Capacitance principle with stainless steel body, diaphragm & electrode. Ceramic insulator. Internal temp. compensation.

### Performance

Accuracy<sup>1</sup>:  $\pm$ 1.2% of full-scale, at constant temperature  
 Non-linearity(BFSL):  $\pm$ 1% of full-scale  
 Hysteresis: 0.2% of full-scale  
 Non-repeatability: 0.2% of full-scale  
 Max. line pressure: 70 KPa (0.7 bar) in positive or negative direction  
 Thermal effects:  
 Zero/span shift: 0.1% per °C  
 Compensated range: -18 to +65°C  
 Warm up shift<sup>2</sup>: 0.5% of full-scale total

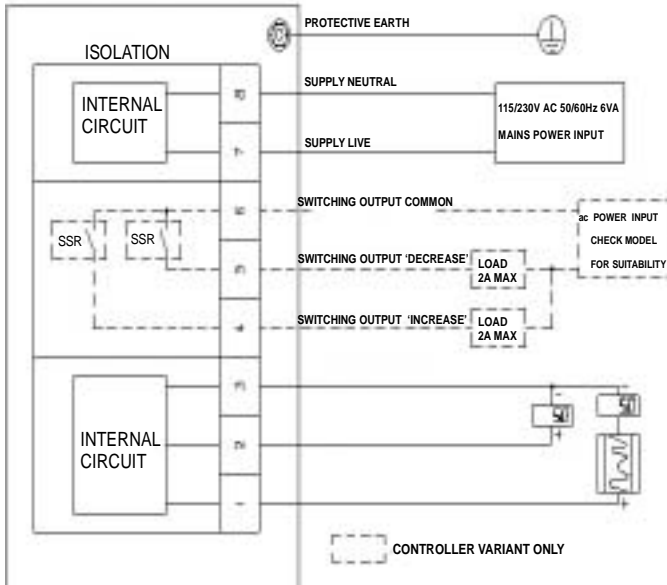
### Environmental

Enclosure : Diecast aluminium AISI 12, DIN 1725. Weatherproof to IP 65 wall mounting. LxWxH 180x140x71 (excl. fittings)  
 Pressure connection: 6mm OD compression fittings  
 Cable entries : 3 off drilled 20.6mm Dia. For M20 x 1.5 pitch or pq 13.5  
 Operating temperature: -18°C to 65°C  
 Weight : 1.5 kg net

<sup>1</sup>Accuracy expressed as the root sum squares of non-linearity, hysteresis and non-repeatability.

<sup>2</sup>While internal temperature compensation becomes effective

PRINTED CIRCUIT BOARD



From the same supplier:

#### Oxygen Indicator

OC 2000 Precise, fast reacting and sturdy oxygen indicator with alarms and safe control capabilities. Includes the OS 2000 probe.

#### Oxygen Trim Regulator

OTC2000 is a P.I.D. regulator that provides optimum combustion throughout the burner's full area of operation.

#### Fail Safe

FS 2000 'Fail Safe' offers approved and reliable RPM control of combustion air fans.

#### High-Temp. Extraction System

ETS 2000 Offers oxygen measurement in gases up to 1400 °C and higher - also in harsh environment.

#### Measuring smoke and dust

VEM250/251/252 ensures robust and economical optical measuring of smoke density and dust concentration.

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