Sensors for Building Services



Grant supply a wide range of sensors for the building services industry. These sensors are compatible with all Grant Squirrel data loggers. These include current and voltage transducers, air velocity transducers and carbon dioxide and light intensity sensors.

Miniature clip-on AC current transducers (BSS 540, BSS 541, BSS 542)

Accommodates a 15mm diameter cable or a 15x17mm bus-bar BSS 540 accuracy is higher than BSS 541

Clamp-on AC current transducers (BSS 542)

Accommodates a 43mm diameter cable Measurement range: For BSS 540, 0 to 25A (100A max) For BSS 541, 0 to 100A (200A max) For BSS 542, three switch selectable ranges 0 to 250A, 0 to 500A and 0 to 1000A Output: 0 to 1V DC for all ranges Basic accuracy: ±0.25 to ±3% Output connection: 4mm safety sockets Operating temperature: -10 to +50°C

Max. operating voltage: 650V Dimensions: BSS 540 and BSS 541 43x23x125mm, weight 125g

BSS 542 38x90x205mm, weight 550g

Miniature Portable or Din Rail **Mounting AC Voltage Transducer** (BSS 543 and BSS 544)

Provides DC voltage signal proportional to AC voltage input, as well as offering isolation between the input and output. FS input Voltage: 0-240V (BSS 543) or

0-440V (BSS544) Output: 0 to 1V FS

Frequency range: 40 to 60 Hz Operating temperature: 0 to 60°C Dimensions: 98.5x22.5x75mm, weight 120g Power supply: self-powered

A number of accessories such as sets of test leads and voltage probes for single or three-phase supplies are required.

Optical Meter Reader (BSS 530)

Miniature optical reader using infra-red sensors to detect rotating disc or pointer on a standard utility meter with mechanical dials. Emits a pulsed signal for every revolution Output: volt-free relay contact rated 200mA @ 50V DC (normally off) Operating range: 5 to 30mm autofocus

Power: external PP3 battery pack Dimensions: 40x35x20mm

Attachment: Via double-sided bonding tape for temporary or permanent installation

Air Velocity Transducer (BSS 533 and BSS 534)

Measuring ranges: 0.125 to 50m/s Accuracy: ±2% of reading, ±0.5% Full Scale

Output: linear, 0 to 5V DC

Temperature range: for sensor 0 to +93°C Temperature compensation range: 0 to 60°C Response time: 0.2 s (tested at 7.5m/s),

slower at lower velocities

Input power: 12 to 28V DC, 350mA max Please note that a separate power supply is needed to power this sensor (details available on request).

Dimensions: probe 6.4mm diameter, 300mm long, on 5m cable, electronics enclosure 80x60x126mm

Carbon Dioxide Sensor (BSS 535)

For indoor air quality measurements. Single beam, non-dispersive infa-red. Measuring range: 0 to 2000 ppm

Output: 0 to 10V

Power: 24V DC nominal, 18-30V DC Operating range, 300mA peak current draw (10ms), 70mA average current. Please note a separate power supply is needed to power this sensor (details available on request).

Temperature range: -5 to 45°C Response time: 1 min Repeatability: ±1%FS Dimensions: 80x80x35mm

Light Intensity Sensors (BSS 531 and BSS 532)

General purpose high stability and sensitivity used for lightmeters, exposure meters etc. Use BSS 531 for measuring visible light only and BSS 532 for measuring visible and

> 0-1000 lux 400 to 700nm

280 to 410nm

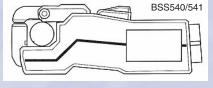
±5%(visible) ±10%(uv)

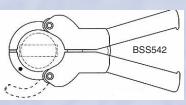
33x52x75mm

10 to +50°C

ultraviolet light.

Measurement range:	BSS 531	BSS 532
	0-1000 lux	0-1000 I
Spectral response: (visible)	400 to 700nm	400 to 70
Spectral response: (uv)		280 to 4
Output:	0 to 5V	0 to 5V
Accuracy:	±5%(visible)	±5%(vis
		±10%(u\
Dimensions:	40x50x52mm	33x52x7
Veight:	125g	110g
Operating temperature:	10 to +50°C	10 to +5
ypical DC power supply:	9V battery or 9V supply from mains adaptor	











www.grant.co.uk