

WIRELESS STRAIN GAUGE SYSTEM ABSOLUTE

The Absolute Strain Gauge System uses a low power radio link to transfer up to two digitised strain measurements to a stationary antenna mounted nearby. The signals are passed to a receiver where they are decoded and output as CAN bus messages and analogue outputs.

The full system consists of the following components:

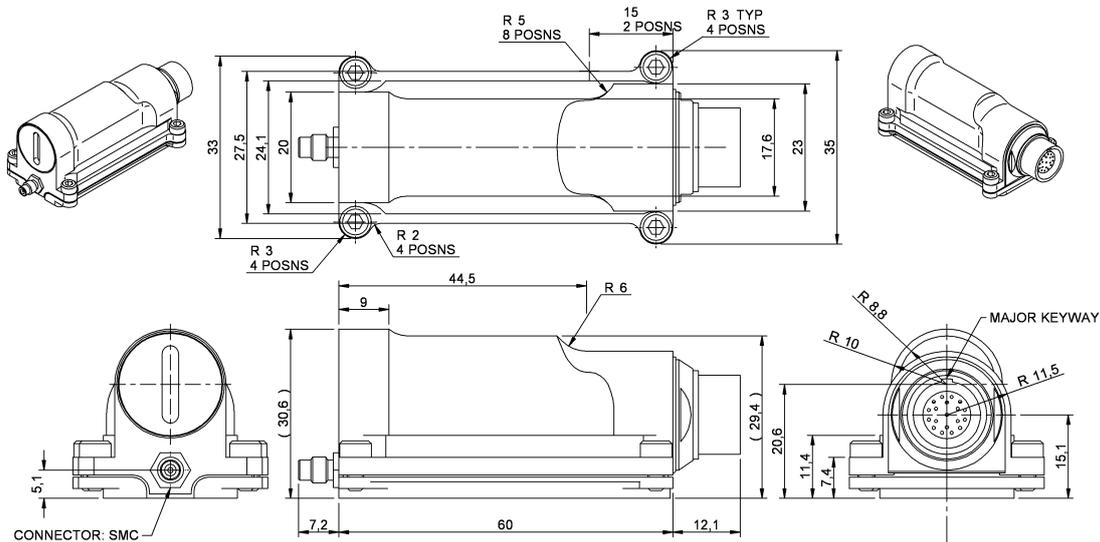
- Strain gauge receiver with antenna
- Transmitter with antenna

The following customer provided equipment is required to configure the system:

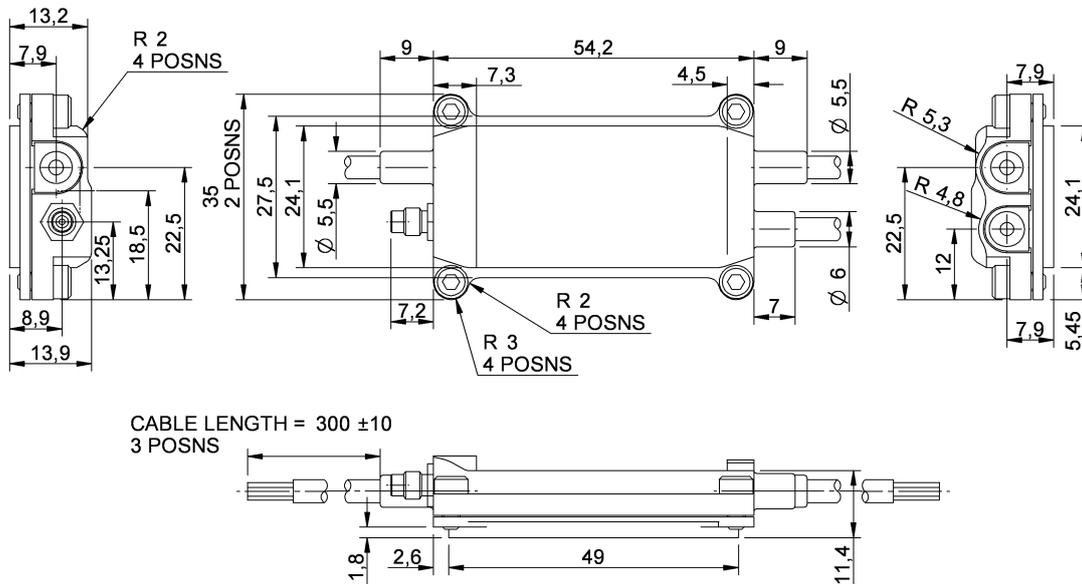
- Recommended CAN card Vector CANcardXL
- PC with RS232 interface and terminal emulator software
- PC with RS232 interface to run the calibration GUI for the transmitter, if re-calibration is required

<p>Electrical</p> <p><u>Receiver</u></p> <ul style="list-style-type: none"> • CAN interface • 2x Analogue outputs • Antenna supplied • Supply +8 to +16 VDC • Max positive torque 4.75±0.15V (clips at 4.9V) • Zero torque 2.5±0.15V • Max negative torque 0.25±0.15V (clips at 0.1v) • Max deviation of output from 20°C to 125°C: Standard system = ±7% of full scale Thermally compensated system = ±3.5% of full scale <p><u>Transmitter</u></p> <ul style="list-style-type: none"> • Available with internal ½ AA Sulfuryl Chloride battery, which can be renewed by user, no need to return to MESL, or external battery • Battery life 24 hours (typ) of continuous transmission • Two channels • Gauge circuit specification for each channel Balanced and modulus compensated full bridge 1kohm gauges Gauge factor ≥ 2 • PT1000 connection if thermal compensation is required • RS232 interface for calibration • Antenna supplied • Message transmission rate up to 1kHz • RF Specification: Nominal frequency 433.920MHz Modulation ASK encoded serial data <p>Each transmitter has a unique encrypted serial number. The system can be supplied with calibration data programmed into the transmitter.</p>	<p>Application</p> <ul style="list-style-type: none"> • Measurement of strain <p>Mechanical</p> <p><u>Receiver</u></p> <ul style="list-style-type: none"> • Black anodised aluminium case • Weight 115g • Resistant to standard Motorsport fluids • 434 MHz helical antenna, approx 79mm long x 15mm diameter, with SMA female connector • Shock 50g (max), ½sine for 11ms, 5 times per axis <p><u>Transmitter</u></p> <ul style="list-style-type: none"> • Black aluminium body • Operating temperature +10°C to 125°C • Polyester cable bosses for strain relief where fitted <p>Connection</p> <p><u>Receiver</u></p> <ul style="list-style-type: none"> • AS2-10-35PN Connector • Antenna 25SMA-50-2-6/111 NE <p><u>Internal Battery Transmitter</u></p> <ul style="list-style-type: none"> • EHN-2F-319-XLM Connector • Antenna connector via case-mounted bulkhead SMC socket <p><u>External Battery Transmitter</u></p> <ul style="list-style-type: none"> • 28AWG un-screened cable • Cable length 300mm • DR25 jacketed cable • Antenna connector via case-mounted bulkhead SMC socket <p>For pin-out details contact MESL</p>
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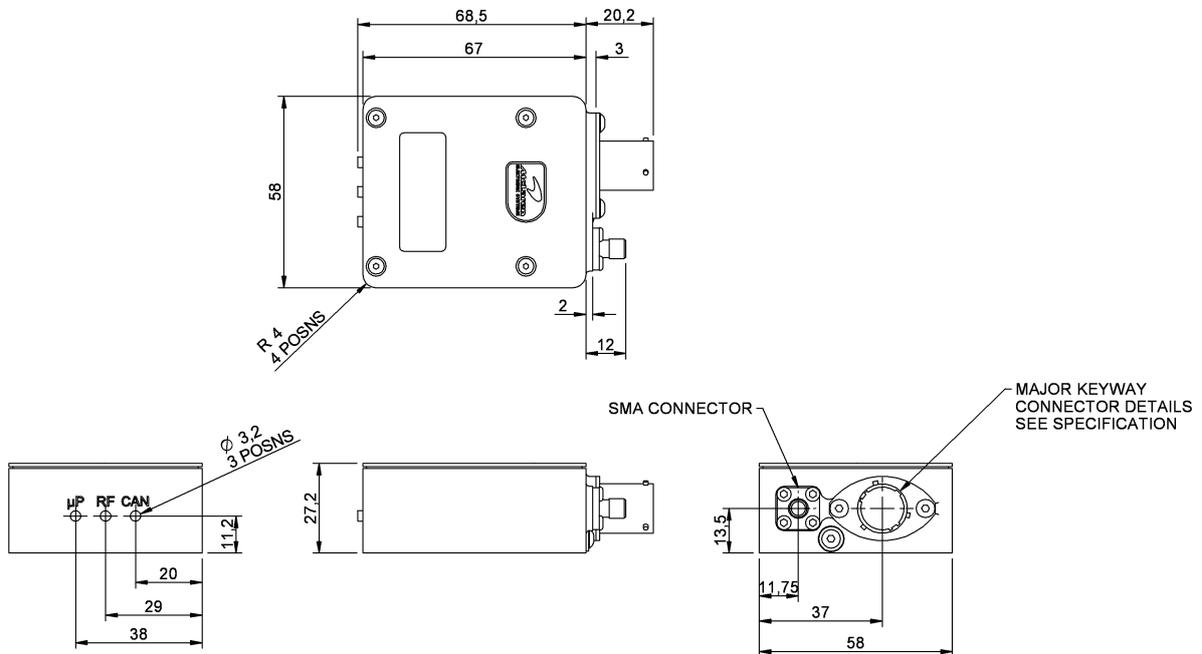


Description	Order Code
ASGT with internal battery	O 030 205 006 003
Spare battery	O 030 205 990 001
Transmit antenna	O 030 205 990 003



Description	Order Code
ASGT with external battery	O 030 205 006 004
Transmit antenna	O 030 205 990 003

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Description	Order Code
Drive plate receiver	O 030 205 005 000
Receiver ANA/CAN/PWR connection cable	O 030 205 990 000
1.5m antenna extension cable	O 030 205 990 004