

APPLICATION DATA SHEET

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Emissions Monitoring System Model 2950

- ✓ Wall mounting controller
- ✓ 24V DC or 110/230vAC operation
- ✓ 24V Independent Audio/Visual Alarm driver
- ✓ Volt free contact outputs
- ✓ 4-20mA signal outputs
- ✓ Digital display showing gas concentration
- ✓ Battery backup options
- ✓ Optional additional input/output cards
- ✓ Easy installation
- ✓ Duct mounting Oxygen sensor

The Skil Model 2950 is a simple to use oxygen analyser utilising a Zirconia Oxygen sensor mounted directly into the process or flue.

The product is not susceptible to interference from any other gases and can tell the relative amount of oxygen in any atmosphere.

The controller gives a direct 4-20mA output and a direct reading so you can instantly see the oxygen content on a clear LCD screen and interface to host control systems. The control panel allows the user to set alarm levels based on the Oxygen reading and CO₂ calculation.

The product can be used to provide control of the oxygen content or give alarms and trigger external devices.

Oxygen Probe Specification

| | |
|-------------------------------------|-------------------|
| Supply Voltage, V | 24Vdc \pm 5% |
| Supply Current, A | 500mA |
| Output Signal | 0-10Vdc or 4-20mA |
| Oxygen Range | 0.1 - 25% vv |
| Ambient temperature | -10°C to 50°C |
| Resolution | 12 bit |
| Sensitivity | 1.05ms/mbar |
| Accuracy | \pm 2% |
| Reproducibility | \pm 1% |
| Warm up time | 10min (approx.) |
| Permissible gas temperature | -100 +250°C |
| Gas flow rate | 0-10m/s |
| Repetitive permissible acceleration | 5g |
| Incidental permissible acceleration | 30g |
| Protection level, housing | IP65 |



CH₄ H₂S CO₂
NO_x SO₂ NO₂ CO

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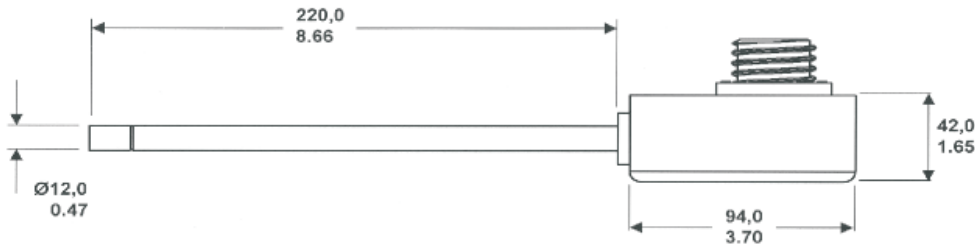
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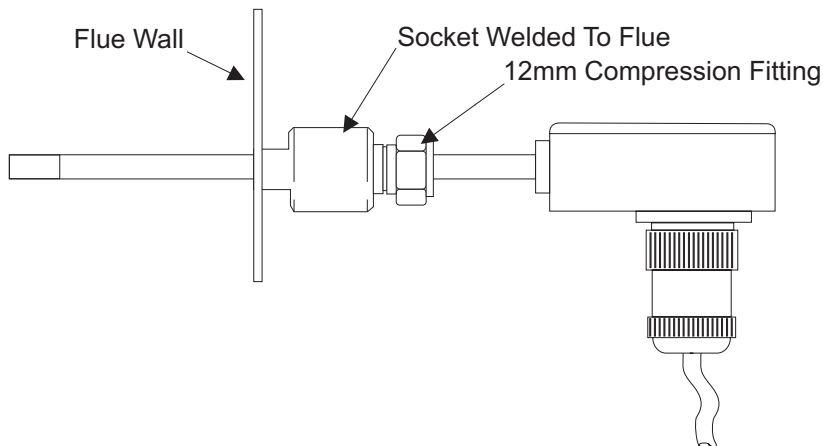
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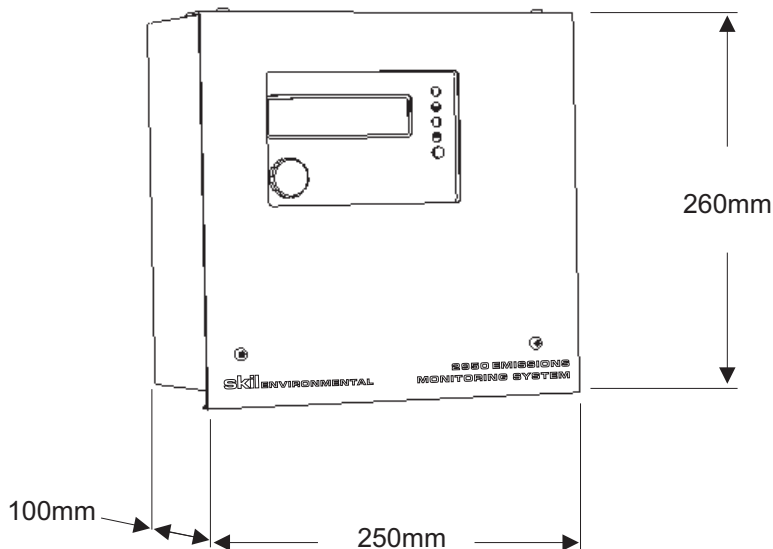
Basic Probe Dimensions



Recommended Probe Mounting



Basic Control Panel Dimensions



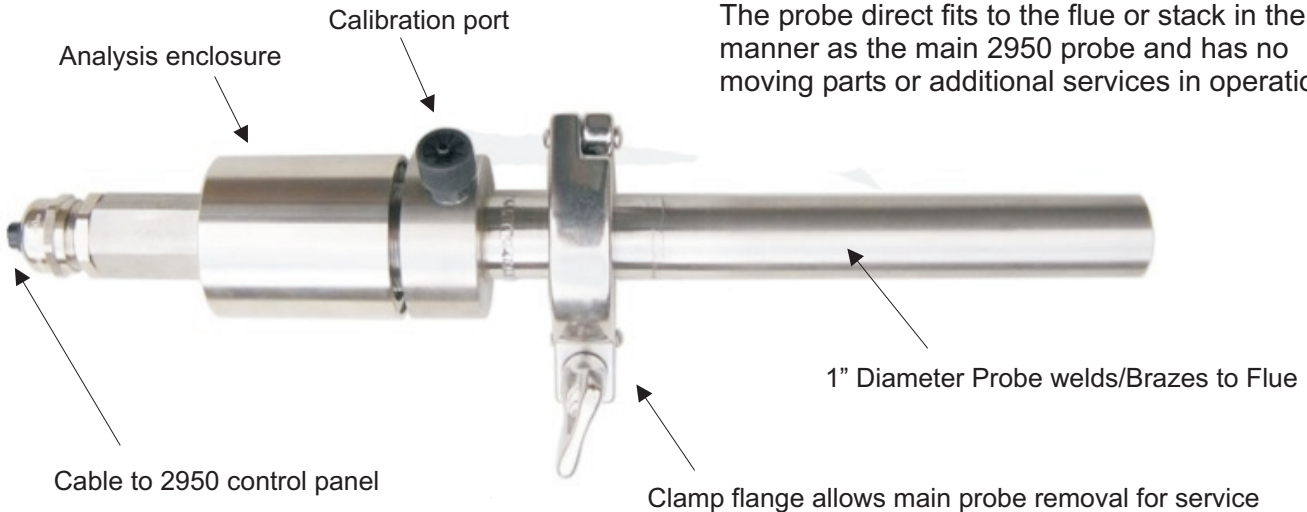
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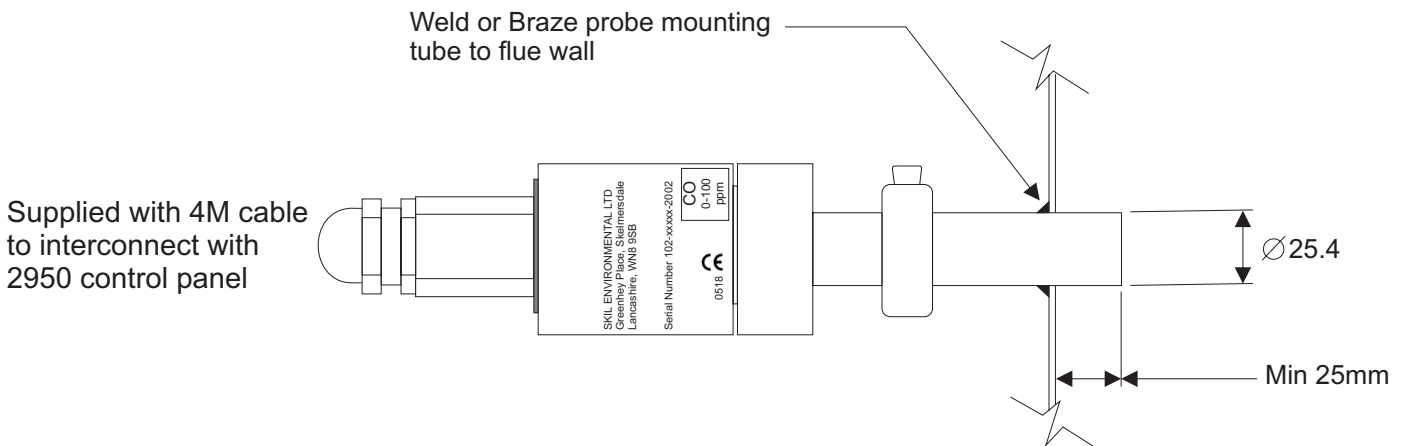
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Carbon Monoxide Probe

An additional probe can be fitted to the Skil Model 2950 to provide Carbon Monoxide measurement. The probe direct fits to the flue or stack in the same manner as the main 2950 probe and has no moving parts or additional services in operation.



Carbon Monoxide Probe Mounting Details



Carbon Monoxide Probe Specifications

| | |
|-------------|---|
| Range | 0-1000ppm |
| Power | 24V DC |
| Temperature | -10 to 50 Deg C Ambient 100 Deg C Flue Temp |
| RH | 5 to 95% RH |
| Accuracy | +/- 3% |
| Output | Linear 4-20mA output from Skil 2950 control panel |

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Control Panel Specifications

| | |
|-----------------------|--|
| Power Source | 85 to 260 VAC (18 to 30 VDC Option) |
| Power Consumption | 40 Watts |
| Display | 2 x 16 backlight LCD |
| Operating Temperature | 0°C to 50°C |
| Operating Humidity | Up to 95% non-condensing |
| Resolution | 2 Decimal Places O2 and CO2 |
| | Temp Displayed as Whole Numbers (Temp is optional) |
| | 1 Decimal Place Efficiency 0-100% (Option) |
| Update Rate | 1 Second |
| Size (mm) | 255 (H) x 265 (W) x 100 (D) |
| Inputs | O2 sensor (4-20mA) |
| | Temp Sensor Option (4-20mA 0-500 Deg C) |
| Available Outputs | 3 x configurable SPCO relays (7 Amp non conductive load) |
| | 1 x fault SPCO relays (7 Amp non conductive load) |
| | 1 x solid state audio/sounder 24VDC |
| | 1 x solid state visual/flasher 24VDC |
| | 4-20mA Output For Oxygen Reading |
| | 4-20mA Output For Calculated CO2 |
| | 4-20mA Output For Temperature (Optional) |
| | 4-20mA Output For Efficiency (Optional Requires Temp Probe Option) |
| Optional Equipment | Battery backup module 7AH 255 (H) x 265 (W) x 100 (D) |
| CE Declaration | EN50081-2: 1994 |
| | EN50082-2: 1995 |
| | EN61010-1: 2001 |

Order Codes

| Part Number | Description |
|-------------|--|
| 90-5135501 | 2950 base unit Includes: Control Panel Duct Mounted Probe 3M Interface Cable |
| 90-5135601 | 2950 Temperature Probe Option |
| 90-5135701 | 2950 Efficiency Output Option (See note below) |
| 90-5138301 | 2950 CO Probe Option (Note: Control Panel Allows Efficiency or CO Probe Output Not Both) |

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NO₂ SO₂ NO_x CO

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