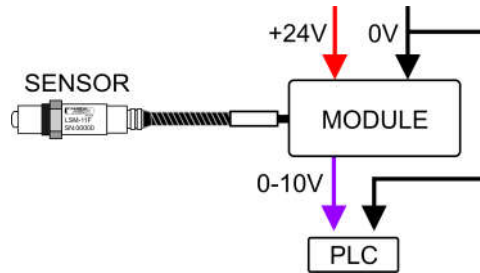




## Lambdapower O2 Lineariser module short-form instructions (24V)

**Overview and Function:** Converts raw O2 sensor signal to linear 0 to 10V output for industrial PLC.

### Wiring Colours:



Pin1) RED +24VDC; Pin2) BLACK 0V GND; Pin3) VIOLET 0-10V analogue output (Vout)

Recommended regulated 24.0VDC power supply. Startup 1.5A, Const 0.26A. (Acceptable range 15.0VDC - 30.0VDC)

Requires Lambdapower O2 sensor (for industrial uses only) - LSM11F (green dot) recommended, though LSM11B will also work. After initial setup, warmup time for LSM11F sensor: 3 minutes, during initial setup recommended warmup time 30 minutes.

Max cable run 15 metres, supply wires are polarity protected and all lines are EM filtered and can be run in the same conduit as other power and signal cables. Try to avoid connecting Purple wire to +24V whilst GND is connected.

### Module dimensions:

Weight 325g approx, Supplied harness length approx 1.5m

Resin Potted ABS enclosure 68 x 110 x 35mm incl mounting lugs, Moisture and dust resistant to IP55

### Installation Notes:

Module has manual adjustment to allow for manufacturing tolerances between different sensors.

With sensor warmed up and in free air, adjust trimmer so Vout sits just at its maximum output (10.05V - 10.20V). This headroom above 10.0V is recommended to allow for sensor aging, we recommend to treat all values above 10.0V as maximum FSD, ie. 10.0V, rather than calculating a new multiplication factor.

Recommended screwdriver size 2.0mm x 0.4mm flat blade, eg. Wera 118006. Sensor can be quick tested to check response by briefly pointing a flame at tip, eg. pocket lighter, blowtorch. Continuous gas temperatures above 800°C will require an air jet directed over the sensor body.

### Interpreting the output:

Example output table, Multiplication factor is always 2.09

Vout	Mult Factor	% O2
10v or more than 10v	2.09	20.90%
5v	2.09	10.45%
0.1v	2.09	0.21%

Average output accuracy is better than 0.7% O2. For professional use only, not for retail or D.I.Y. fitment.