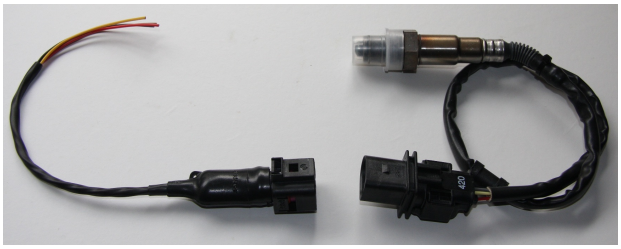
Notice LSU49-5V

KIT CONTENT
(can be sold separately)

- One LSU 4.9 sensor (cable length: 0.60m)
- One LSU49-5V controller (length 0.30m)



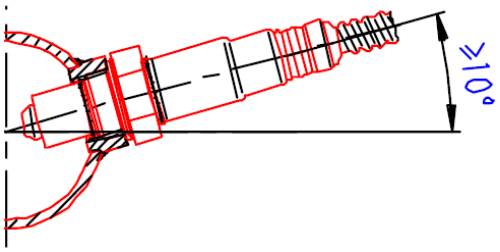
TIPS FOR LAMBDA SENSOR INSTALLATION

The sensor should not be placed at the exit of the cylinder head because the excessive temperature of the gases can damage it (T max. 950 °C).

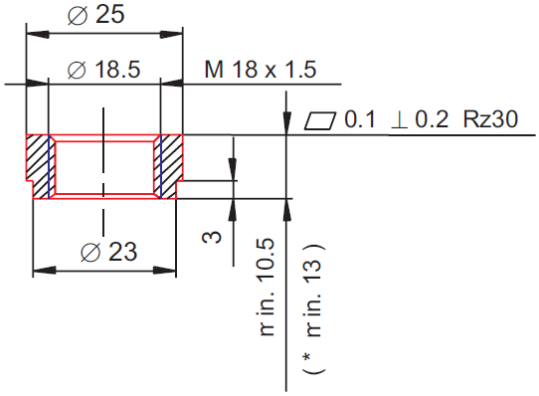
- Nor is advisable to mount the sensor near the exhaust exit because the pumping of gas lets enter the outer oxygen and deceive the measurement.

- Positioning the probe at a minimum angle as shown in Figure posterior to not collect water from the condensation of the steam generated by the fuel combustion.

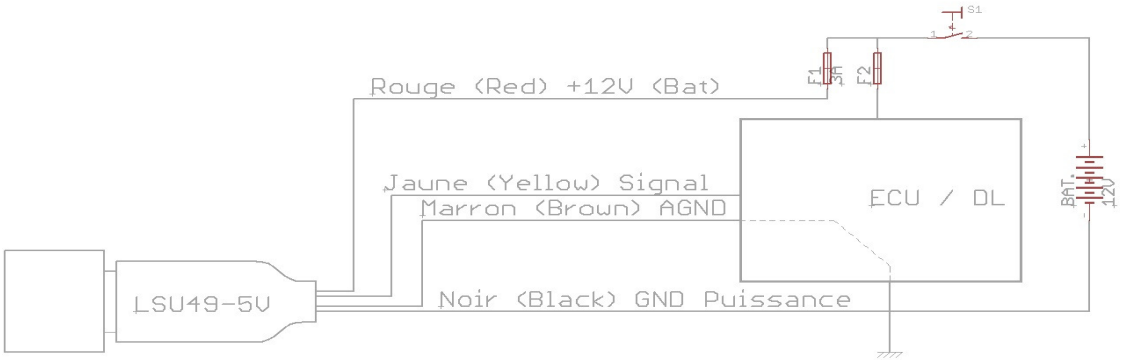
- Never leave a probe mounted in an exhaust pipe if it is not being used. Combustion residues accumulated in the sensitive part could prevent proper operation of the sensor



Typical racor to be welded in exhaust if necessary.



CONNECTION OF LSU49-5V



Do not connect yellow wire on 12V under threat of destruction of the analog output.
Do not connect the black wire to the analog ground but to the power ground.

The brown wire must be connected to the analog ground.

ANALOG OUTPUT LINEARISATION

Linéarisation of the analog output at
- exhaust pressure (P3) = 1013mB
- - H / C = 2 (for the scale A / F)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Richness	**1,755**	**1,500**	**1,450**	**1,400**	**1,350**	**1,300**	**1,250**	**1,200**	**1,150**	**1,100**	**1,050**	**1,000**	**0,950**	**0,900**	**0,850**	**0,800**
Lambda	0,570	0,667	0,690	0,714	0,741	0,769	0,800	0,833	0,870	0,909	0,952	1,000	1,053	1,111	1,176	1,250
A/F	8,4	9,8	10,1	10,5	10,9	11,3	11,8	12,3	12,8	13,4	14,0	14,7	15,5	16,3	17,3	18,4
O2 (=f(Ri,C,H))	-14,1%	-9,51%	-8,58%	-7,65%	-6,72%	-5,78%	-4,83%	-3,88%	-2,92%	-1,95%	-0,98%	0,00%	0,98%	1,98%	2,97%	3,98%
Vout (mV) (@P3)	**4**	**693**	**850**	**1014**	**1185**	**1360**	**1540**	**1725**	**1914**	**2107**	**2303**	**2500**	**2592**	**2686**	**2781**	**2879**

	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Richness	**0,750**	**0,700**	**0,650**	**0,600**	**0,550**	**0,500**	**0,450**	**0,400**	**0,350**	**0,300**	**0,250**	**0,200**	**0,150**	**0,100**	**0,050**	**0,001**
Lambda	1,333	1,429	1,538	1,667	1,818	2,000	2,222	2,500	2,857	3,333	4,000	5,000	6,667	10,000	20,000	1000,0
A/F	19,6	21,0	22,6	24,5	26,7	29,4	32,7	36,8	42,0	49,0	58,8	73,5	98,1	147,1	294,2	14709
O2 (=f(Ri,C,H))	4,99%	6,01%	7,03%	8,06%	9,10%	10,15%	11,20%	12,26%	13,33%	14,40%	15,49%	16,57%	17,67%	18,78%	19,89%	20,99%
Vout (mV) (@P3)	**2978**	**3079**	**3183**	**3288**	**3395**	**3504**	**3616**	**3729**	**3844**	**3961**	**4080**	**4201**	**4324**	**4449**	**4576**	**4702**

Preheating phase, sensor too cold: Vout = 2500mV
Unconnected sensor, or overload or regulation error: Vout < 100mV

CHARACTERISTICS

Power supply: from 9V to 18V
Consumption: maxi 2A on cold sensor
Measurement range: air to 1.55 richness
Offset: +/-15mV
Gain precision: +/-1%
Output resistance: 2k (1k if Vout set to ground on detected fault)
Maximum temperature use: 100ºC
Sensor heating temperature: regulated to 780ºC (can drift with sensor aging)
Total length: 30cm
Weight: 30g
IP: IP65
Connector: output wires (4 wires section 0.5mm) for signal and power supply. Type VW on sensor side.

ADVICES

Do not use leaded gasoline.
Excessive consumption of oil by the engine decreases the life expectancy of the sensor.
Do not use a fuse higher than à 5A (recommended value: 2A).

For further information see the corresponding web page on www.THQtronic.com