

## Lambda Sensor LSM 11-PM

This sensor is designed to measure the oxygen content and Lambda value of exhaust gases in automotive engines (gasoline or Diesel).

The catalytic effect of the electrode surface at the sensor's exhaust-gas produces a step-type sensor voltage profile in the area around  $\lambda = 1$ . Measurements are taken of the residual oxygen content in the exhaust gas. The active sensor ceramic ( $ZrO_2$ ) is heated from inside by means of ceramic Wolfram heater so that the temperature of the sensor ceramic remains above the 350 °C function limit irrespective of the exhaust-gas temperature. The high resolution signal in the area around  $\lambda = 1$  in combination with a robust motorsport connector is the main benefit of the LSM 11-PM.



Application	
Application	1.025 ... 1.5 lambda
Fuel	Gasoline/Diesel
Exhaust gas temperature range (operating)	250 ... 800 °C
Exhaust gas temperature range (maximum)	930 °C
Hexagon temperature	≤ 570 °C
Cable and protective sleeve temperature	≤ 250 °C
Connector temperature	≤ 120 °C
Storage temperature range	-40 ... 100 °C
Max. vibration (stochastic peak level)	800 m/s <sup>2</sup>

Electrical Data	
Power supply H+ nominal	12 ... 14 V
Heater power steady state	18 W

Mechanical Data	
Weight w/o wire	160 g
Length	86 mm
Thread	M18x1.5
Wrench size	22 mm
Tightening torque	50 ... 60 Nm

Characteristic		
Signal output	Ip meas / Ua (AWS)	
Accuracy @ lambda = 1.7	1.70 ±0.05	
Ua [mV]	Lambda [λ @ 400 °C]	Lambda [λ @ 650°C]
60	1.030	1.035
50	1.050	1.055
40	1.090	1.097
30	1.150	1.160
20	1.260	1.270
15	1.380	1.380
13	1.495	1.495

