

Technical Data Lambda Probe LS2-K/LS2-KV



Fig. 1 Lambda Probe LS2-K, LS2-KV

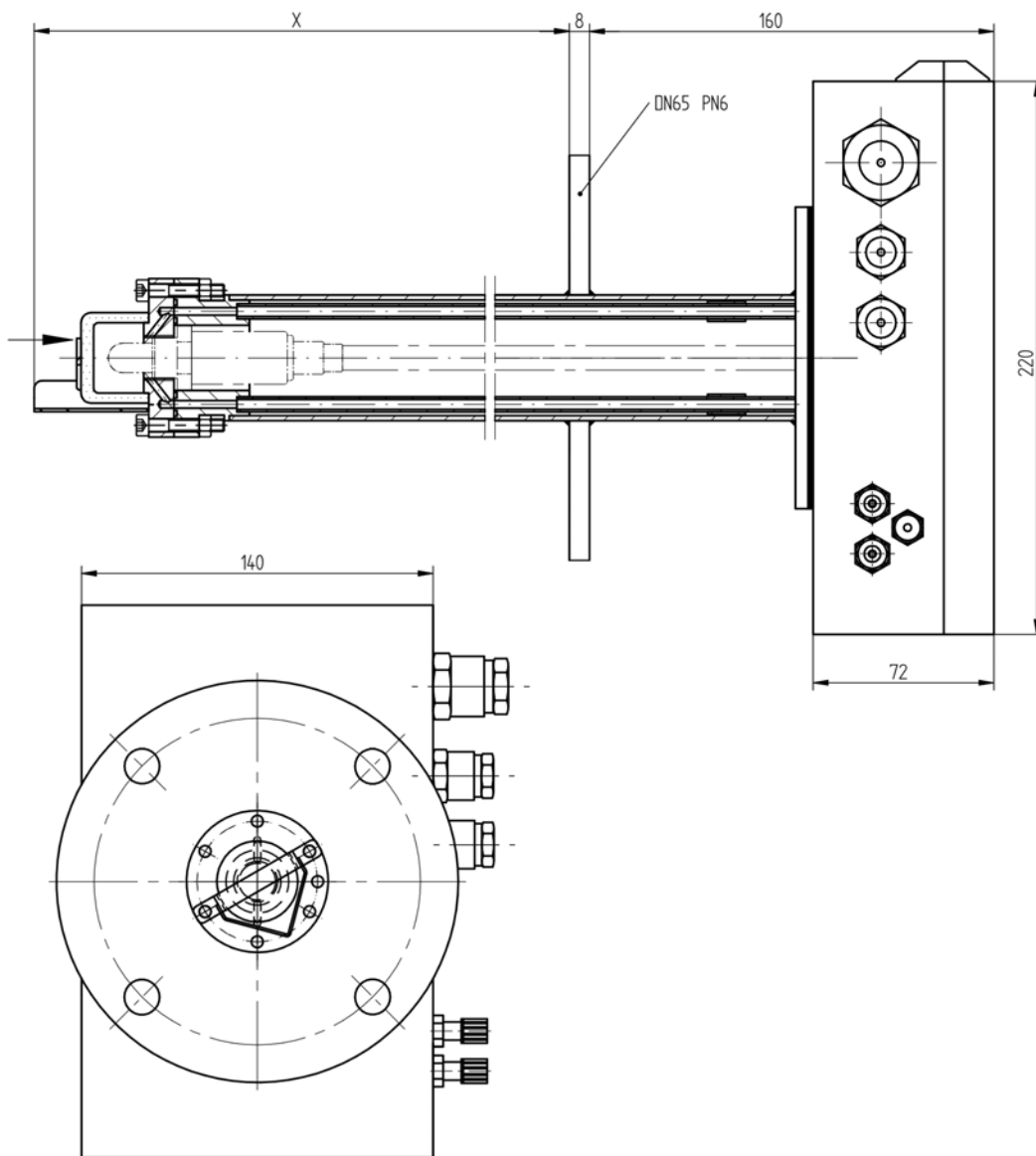


Fig. 2 Lambda Probe LS2-K, LS2-KV

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Technical Data

Measurement range	0 ... 21 vol.% O ₂ with restriction 18 ... 21 vol. % O ₂
Measurement accuracy	± 5 % of the measured value not better than ± 0.2 vol. %
Drift/month	max. 2 % of the measured value or 0.1 vol. % O ₂
Pressure influence of the measuring gas	-1,6 mV/100 mbar change
Typical probe voltage output	0.01 ... 21 vol. % O ₂ 150 ... -12 mV
Probe internal resistance R _I in air 20 °C/68 °F and 13 V heating voltage	≤ 100 Ω
Probe voltage in air 20 °C/68 °F n new state and 13 V heating voltage	0 ... -20 mV
Supply voltage measurement cell heating	11 ... 16 VDC; polarity changes cyclically
Heat output at 13 V in steady state condition	approx. 18 W
Heating current at 13 V in steady state condition	approx. 1.4 A
Insulation resistance between heating and probe connection	> 30 MΩ
Calibration	Semi automatic calibration with air or test-gas (max 0.3 bar) fully automatic calibration (optional)
Pneumatic connections	Reference air → instrument air primary pressure 0.3 bar Calibration air → instrument air primary pressure 0.3 bar or test-gas

Operating condition

Mounting position	Horizontal via vertical to horizontal
Mounting / measuring gas extraction device	Directly in exhaust gas channel/ in situ
Lifetime (typical)	≥ 5 years for light fuel oil and natural gas
Permissible fuels	Gaseous hydrocarbons natural gas L/H fuel oil EL/S coal special fuels on request

Environmental conditions

Operation	Permissible temperature range	-20 ... +60 °C / -4 ... +140 °F
	Permissible duration of exhaust gas temperature	≤ 450 °C / 842 °F
Transport	Permissible temperature range	-20 ... +70 °C / -4 ... +158 °F
Storage	Permissible temperature range	-20 ... +70 °C / -4 ... +158 °F
Electronic safety	Degree of protection DIN EN 40050	IP65

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Order Information

Lambda Probe LS2-K for measurement of oxygen (O₂), for flue gas temperatures up to 450 °C / 842 °F
with test gas connection for semi automatically calibration, connection on screw terminals, IP65

Description / Type	Order no.
Lambda Probe LS2-K, semi automatically calibration, immersion depth from flange 500 mm / 19.7" in	650R2030
Lambda Probe LS2-K, semi automatically calibration, immersion depth from flange 1,000 mm / 39.3" in	650R2031
Lambda Probe LS2-K, semi automatically calibration, immersion depth from flange 1,500 mm / 59" in	650R2032

Additional required: Lambda Transmitter LT2, configuration for LS2 in type 'semi automatically calibration'
order no. 657R102/LS2/3K ...
counter flange, order no. 655R0179/R0180
flange seal, order no. 655P4209

Lambda Probe LS2-KV for measurement of oxygen (O₂), for flue gas temperatures up to 450 °C / 842 °F
with test gas connection for full automatically calibration, connection on screw terminals, IP65

Description / Type	Order no.
Lambda Probe LS2-KV, full automatically calibration, immersion depth from flange 500 mm / 19.7" in	650R2050
Lambda Probe LS2-KV, full automatically calibration, immersion depth from flange 1.000 mm / 39.3" in	650R2051
Lambda Probe LS2-KV, full automatically calibration, immersion depth from flange 1.500 mm / 59" in	650R2052

Additional required: Lambda Transmitter LT2, configuration for LS2 in type 'full automatically calibration'
order no. 657R102/LS2/5KV ...
counter flange, order no. 655R0179/R0180
flange gasket, order no. 655P4209

The information in this publication is subject to technical changes.



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