

Dräger MSI 150 PRO2-i Flue Gas Analysis



ST 6370-2005

The Dräger MSI 150 PRO2-i is the perfect combination of state of the art and easy-to-use measurement technology packed into a robust and reliable hand-held analyser. The monitoring of all major combustion parameters during start-up and initial operation of heating systems and emission control of industrial furnaces are just two tasks that can easily be carried out with the Dräger MSI 150 PRO2-i.



ST 6653-2005

Dräger MSI 150 PRO2-i:
Industrial 4-gas analyser.

Features

- Display and print out in: ppm, mg/m³, mg/m³@O_{2ref.i}, mg/KWh@O_{2ref.} and mg/MJ@O_{2ref.}
- Selectable O_{2ref.} value
- Selectable factor for NO_x
- Built-in infrared transmitter
- Data memory
- Online data transfer to PC
- Interface for barcode scanner
- Shock protected gas conditioner
- Protection pads with magnet holders
- CO off-scale protection with additional cleansing pump, thus the O₂ and CO₂ values can still be monitored
- CO ambient air monitoring without additional probe
- Velocity measurement

CO-off-scale protection

Before and during the measurement process, the intelligent background monitoring of the instrument checks the emerge of the CO content. In case the Dräger MSI 150 PRO2-i realises that the CO concentration rises too quick, so that the range is expected to be exceeded, the sensor will promptly be cleaned and flushed via the additional diaphragm pump. Thus the O₂ value, the CO₂ value, as well as the efficiency can still be measured.

Standby mode

In order to increase battery life the Dräger MSI 150 PRO2-i switches to standby-mode when not in use.

Data transfer

The internal data memory can hold all measurement result of a day's work for further data processing on a PC. The online data transmission function is useful for time consuming installations of bigger boilers, where all measurement values are transmitted in real-time to a connected PC. Software samples are available on our CD-ROM "Dräger MSI-Workbench", which is available upon request.

Measured values

The Dräger MSI 150 PRO2-i measures:

- Ambient air temperature
- Flue gas temperature
- Oxygen, O₂
- Carbon monoxide, CO
- Chimney draft, P in hPa
- Pressure, P in mbar
- Differential pressure

Option:

- NO_x

plus one of the following options:

- CO high, NO₂, SO₂

and additionally:

- O₂ measurement in air duct
- CO in ambient air without additional probe

TECHNICAL DATA

Approvals	Approved according German regulation, TÜV ByRgG 215, M-KC 1001-00/03
Display	LC-display; 6-lines, 20 characters each; alphanumeric, backlit
Interface	Serial, 2,400 up to 115,200 baud
Operating temperature	+ 5 °C to + 40 °C
Storage temperature	- 20 °C to + 50 °C
Power supply	Maintenance-free, sealed lead accumulator, 6 V / 1.2 Ah, capacity up to 8 h, charger
Gas sampling	Membrane pumps for gas sampling and purging of sensors with fresh air
Gas conditioning	Integrated gas conditioning cartridge with condensate trap and particle filters
Dimensions	205 x 180 x 105 mm (H x W x D)
Weight	2,050 g

Display	Principle	Range	Resolution	Accuracy
T-ambient	PTC	- 20 to + 100 °C	0.1 °C	≤ 1 °C
T-gas	Thermocouple	0 to 1,000 °C caution: probe	1 °C	0 to 250 °C: ≤ 2 °C 250 to 400 °C: ≤ 4 °C
O ₂ , oxygen	El. chem. Sensor	0 to 25 Vol.%	0.1 Vol.%	0.3 Vol.%
CO, carbon monoxide	El. chem. Sensor H ₂ -compensated	0 to 4,000 ppm	1 ppm	0 to 2,000 ppm: ± 20 ppm or < 5 % of MV
CO+, (option) carbon monoxide	El.-chem. Sensor	0 to 2,000 %	0.001 %	± 0.01 % or < 5 % of MV
NO, (option) nitrogen monoxide	El. chem. Sensor	0 to 2,000 ppm	1 ppm	± 5 ppm or < 5 % of MV
SO ₂ , (option) sulphur dioxide	El. chem. Sensor	0 to 4,000 ppm	1 ppm	± 10 ppm or < 5 % of MV
CO, undiluted	Calculated	0 to 9,999 ppm	1 ppm	
CO ₂ , carbon dioxide	Calculated		0.1 Vol.%	
Draft	Semiconductor	- 10 to + 5 hPa	0.01 hPa	
Gas pressure	Semiconductor	+ 5 to + 120 mbar	0.01 mbar	
Efficiency	Calculated	0 to 199.9 %	0.1 %	
Stack loss	Calculated	- 20 to + 100 %	0.1 %	
Excess air	Calculated	1.00 to 9.99 %	0.01 %	

MV = Measuring value

ORDER INFORMATION

Dräger MSI 150 PRO2-i, portable combustion analyser	56 00 659
Option NO-channel 0 to 2,000 ppm	56 00 357
Option CO+-channel 0 to 2,000 %	56 00 514
Option NO ₂ -channel 0 to 200 ppm	56 10 516
Option SO ₂ -channel 0 to 4,000 ppm	56 10 517
Probes and additional accessories	s. price list

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