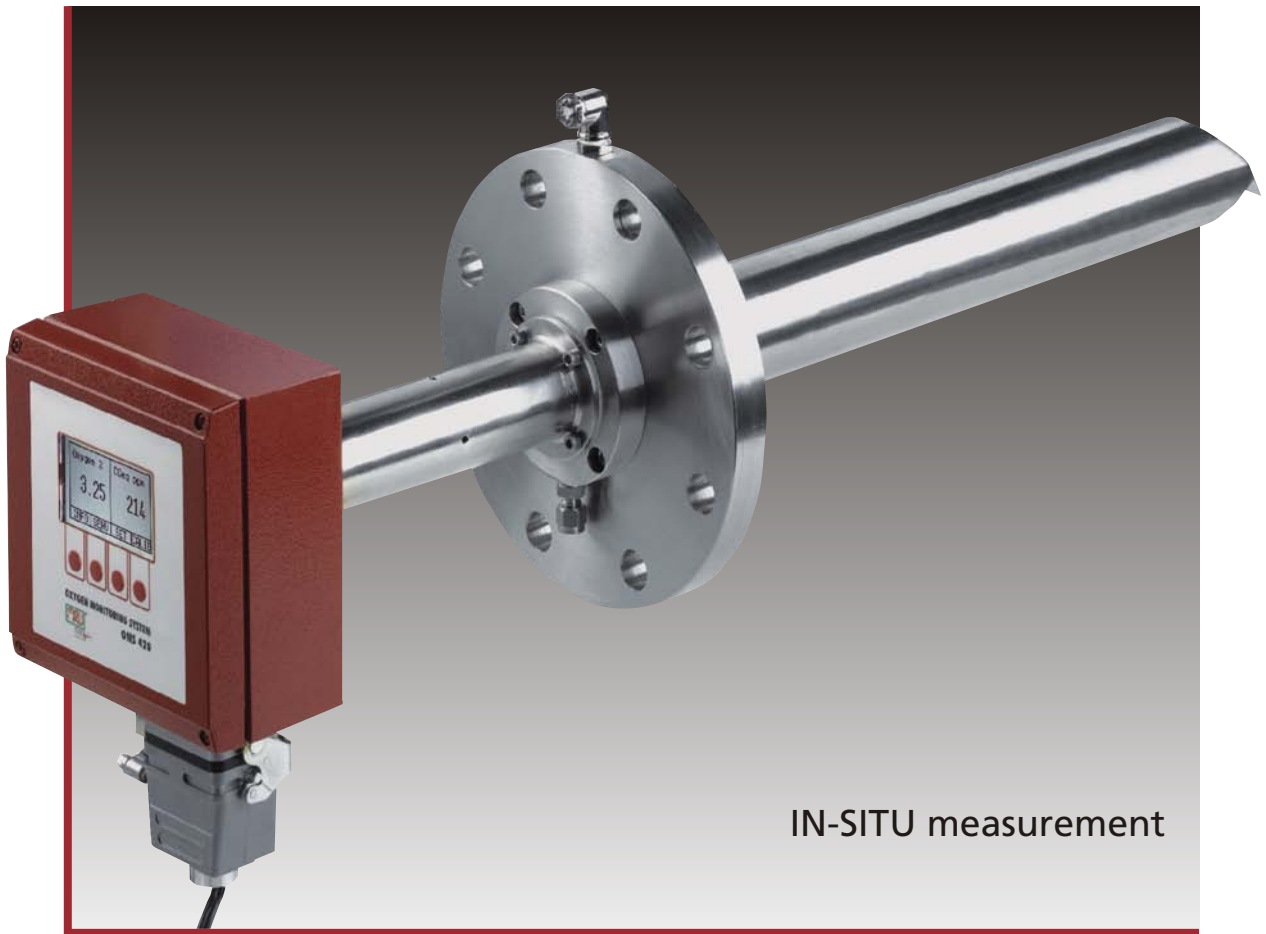




# EMISSION MONITORING SYSTEMS

We *care* about the environment

## REDUCE COSTS WITH COMBUSTION REAL TIME ANALYSIS



IN-SITU measurement

### OMS 420

Combustion optimisation  
by means of simultaneous  
O<sub>2</sub> and CO<sub>e</sub> monitoring



O<sub>2</sub> CO<sub>e</sub>

# OMS 420

IN-SITU real time analysis  
Oxygen (O<sub>2</sub>) and  
combustibles (CO<sub>e</sub>)\*

## Measuring principle

Oxygen (O<sub>2</sub>) = ZrO<sub>2</sub> zirconium oxide  
CO<sub>e</sub> (combustibles) = heated solid electrolyte

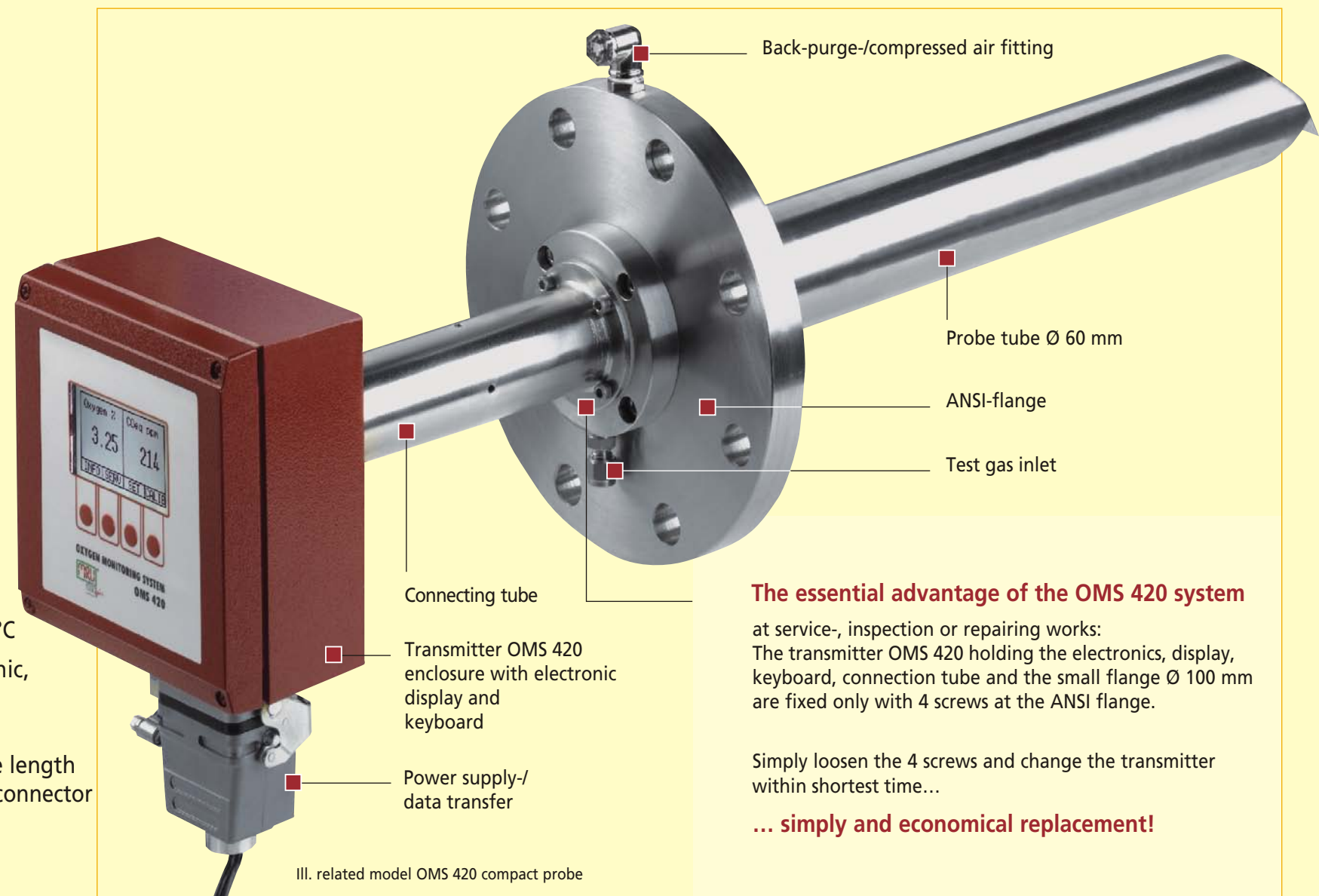
\* total of flue gas combustibles (CO + H<sub>2</sub> + C<sub>x</sub>H<sub>y</sub>)  
displayed as equivalent CO

## Standard features

- Clean combustion (low dust) with combustion temperatures up to max. 1.000 °C
- Die casting aluminium enclosure with electronic, keyboard, front-up display of **O<sub>2</sub>** and **CO<sub>e</sub>**
- Standard ANSI-flange with variable probe tube length Ø 60 mm and with back-purge-/compressed air connector (other flanges e.g. DIN on request)
- Connecting tube with with reference air inlet with small flange, Ø 100 mm
- Rugged industrial plug für power supply and data transfer (analog 4 ... 20 mA, digital RS 485)

## Options

- CO<sub>e</sub> measurement
- Compressed air back-purge with control valve complete with electronic, incl. adjustable intervals - recommended for high dust sites -
- Automatic calibration for span and offset by means of pneumatic unit PU 420
- Application with high temperatures up to approx. 1.700 °C with ceramic tube and ejector (model HT)
- Remote control- and display unit max. 10 m (model RT) for applications with high ambient-/ radiation temperature >50 °C

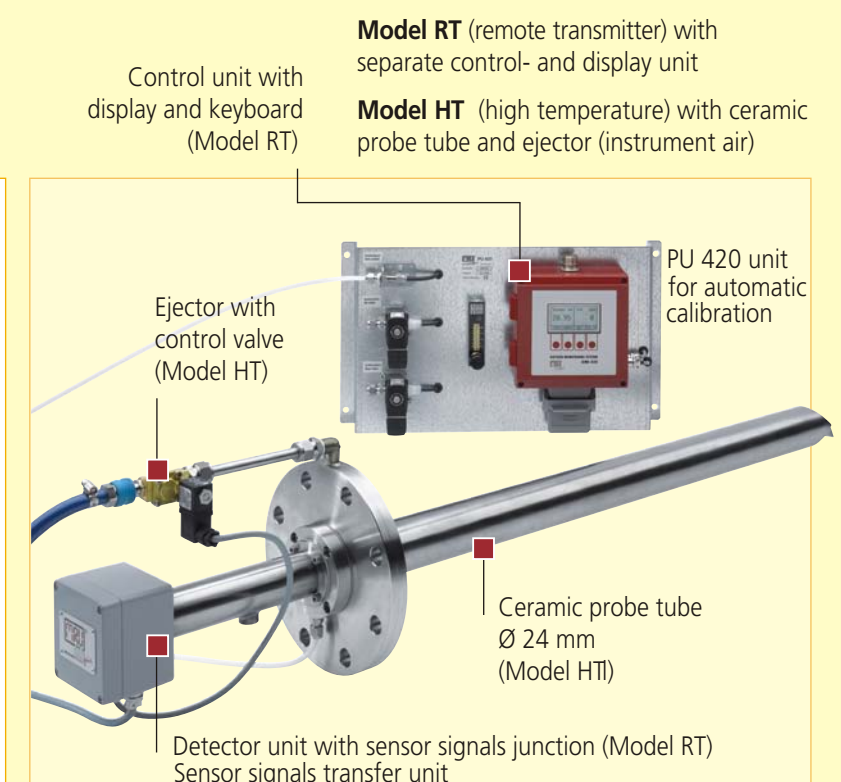
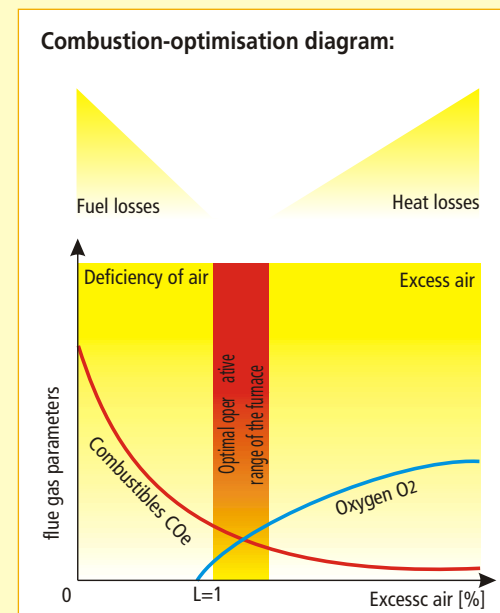


## The essential advantage of the OMS 420 system

at service-, inspection or repairing works:  
The transmitter OMS 420 holding the electronics, display, keyboard, connection tube and the small flange Ø 100 mm are fixed only with 4 screws at the ANSI flange.

Simply loosen the 4 screws and change the transmitter within shortest time...

**... simply and economical replacement!**



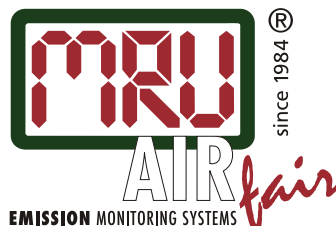
Picture shows model OMS 420 RT

## Technical specifications

<b>Warm up time</b>	min. 30 minutes
<b>Measuring range</b>	0,1 ... 25 % Vol.-% O <sub>2</sub> 0 ... 1.000 ppm CO <sub>e</sub> (option combustibles measurement)
<b>Accuracy</b>	O <sub>2</sub> : ±0,2 % or ±5 % of reading, whichever is larger CO <sub>e</sub> : ±50 ppm or ±10 % of reading, whichever is larger
<b>Flange</b>	ANSI flange: Ø 230 mm / probe tuber: Ø 60 mm, up to max. 4,0 m length or flange DN80 PN16
<b>Flange temperature</b>	min. +70 °C ... max. +150 °C (condensation at the flange of stack gas must be avoided)
<b>Response time T90</b>	<10 seconds
<b>Analog outputs</b>	2 x current loop 4 ... 20 mA, with galvanic isolation linearized for both 0 ... 25 % O <sub>2</sub> and 0 ... 1000 ppm CO <sub>e</sub> (user free range changing in 0,5% steps is available)
<b>Digital output</b>	galvanic isolated RS 485 ( with Modbus protocol)
<b>Power supply</b>	18 ... 24 Vdc (for model OMS 420), 90 ... 100 W 100 ... 240 Vac (for model OMS 420 RT and HT) max. 100 W
<b>Probe connection</b> (only model OMS 420)	special cable with: 2 x for power supply 24 Vdc (model OMS 420) add. 1 x for FG (grounding) 2 x for power supply 100 ... 240 Vac (model OMS 420 RT) 2 x for signal RS 485 input, 2 x for signal RS 485 output 2 x for 4 ... 20 mA analog output O <sub>2</sub> 2 x for 4 ... 20 mA analog output CO <sub>e</sub>
<b>Electronic of transmitter</b>	with local microprocessor, display and 4 push-buttons
<b>Calibration inlet</b>	with test gas fitting for 6/4 mm tube cal gas supplied manually or automaticly by pneumatic unit PU 420
<b>Back-purge inlet</b>	min. 6 ... 8 bar compressed air with quick connector for 8 mm tube
<b>Ambient temperature of electronics</b>	-20 °C ... +55 °C
<b>Enclosure</b>	Die casting aluminium, 160 x 160 x 60 mm and 200 mm probe tube, Ø 50 mm
<b>Protection class</b>	IP 65
<b>Weight</b>	3,5 kg (without probe and flange) 13,5 kg with 600 mm probe and flange 27,5 kg with 1.800 mm probe and flange

Data subject to change without notice.

Dealer:



MRU · Measuring instruments for flue gases and environmental protection GmbH  
Fuchshalde 8 · 74172 Neckarsulm-Obereisesheim  
Phone +49 71 32-99620 · Fax +49 71 32-996220  
info@mru.de · www.mru.eu