

CARBON MONOXIDE CONCENTRATION SENSOR **CSCO-2**



Catalogue card



DESCRIPTION

Carbon monoxide concentration sensor CSCO-2 is a stationary device for measuring carbon monoxide content in explosion hazard areas in underground coal mines. It cooperates with telemetric central station CST-40(A), CST-40C through analogue station CSA-1 and CSA-2. It may also cooperate with other devices provided that the terminal of the feeder-measurement line is compatible.

The CSCO-2 sensor has two measuring ranges: 0-200 and 0-1000 ppm CO. It is power-supplied from an intrinsically safe source with voltage of 12 V. The measured and processed value of CO concentration is sent to analogue output which generates a signal of 0.4 to 2V. Additionally, by modulating the analogue value, the output may also work in serial digital mode transmission. The output in digital mode has one measuring range of 0-1000 ppm CO and may send (via the CSA-1 or CSA-2 station) the serial number of the sensor and other diagnostic information.

The CSCO-2 sensor is a device of M1 category and may thus be used in all underground mines with possible methane or coal dust explosion hazard.

BASIC TECHNICAL DATA

Carbon monoxide concentration sensor CSCO-2

Power supply	from 8 to 14,5 VDC (nominal 12 VDC) max 4 mA
Output operation modes	One analogue or digital. As analogue output 0.4-2 V for digital with unidirectional serial transmission.
Measurement range	0 - 1000 ppm CO
Output ranges (configurable)	0-1000 ppm for digital 0-200 ppm or 0-1000 ppm for analogue output
Accuracy	± 3 ppm in the range 0-100 ppm ± 5 ppm in the range 100-200 ppm ± 25 ppm in the range 200-1000 ppm
Temperature error	2 %
Resolution	1 ppm CO
Gas penetration method	through diffusion
Response time t_{90}	≤ 40s
Working position	Sensor inlet from the side or the bottom (recommended)
Scaling method	Calibrator KR-2
Working temperature range	from -10 °C to + 40°C
Relative humidity range	from 15% to 95%
Dimensions	110 x 75 x 80 mm
Weight	0,65 kg
Casing internal protection	IP-54

EXPLOSION-PROOF MARK



EC type examination certificate: KDB 07 ATEX 257