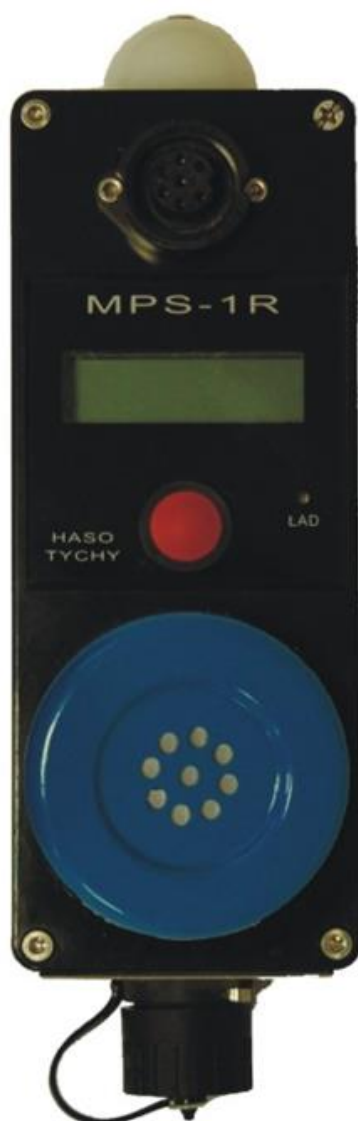


# PORTABLE SIGNALLING GAS CONCENTRATION SENSOR WITH RS422 INTERFACE MPS-1R



Catalogue card



## DESCRIPTION

Portable signalling gas concentration sensor MPS-1R is designed to work with remote probe and it is used to measure atmospheric parameters and signaling exceeding the gas concentration. The sensor and probe are connected to one another by cable, which implies that it is a stationary set. One use might be to measure the concentration of methane in the combine mining work area.

MPS-1R has autonomous power supply (battery), which can supply methane detector for minimum 30 hours. The loading of methane detector can be done by loader type MPS-1L only out of hazard area. In explosion hazard areas MPS-1, MPS-1i can be supplied by suitable intrinsically safe feeder. This feeder supplies electronics of methane detector and loads battery.

The sensor can be set to two alarm thresholds PA1 and PA2. Exceeding PA1 switches the alarm signaling, PA2 switches warning signaling. Sensor has two outputs (UW1, UW2) to control external devices in the case of exceeding of permissible alarm thresholds.

MPS-1R has the ability to archive measurement data through a computer calibrator KK-1. A detailed description can be found in the manual of KK-1.

## BASIC TECHNICAL PARAMETERS

### Sensor MPS-1R

Power supply + calibrator	Un=12÷15V, In=0,25A
Power supply autonomy	min 30h; about 50h outwatch (without signaling excess)
Charging	only by loader MPS-1L out of hazard area
Auxiliary power	Uout = 3,5V
Scaling method	calibrator KR-2 (cable communication)
Working temperature range	from -10 °C to + 40°C
Relative humidity range	from 0% to 95% without condensation
External dimensions	240 x 75 x 90 mm
Weight	1,4 kg
Casing internal protection	IP-54
<b>Intrinsic parameters of J1 connector:</b>	
Power supply + calibrator, pins 3-1	Ui = 16 V, Ci=0, Li=0
Charging, auxiliary power., pins 2-1	Uo = 4,2V; Io = 42mA; Po = 44mW; Co = 100uF; Lo = 100mH
UW1,2, pins 5-1 i 6-1	Ui = 30V; li = 0,6A; Pi = 1,67W Uo = 4,2V; Io = 3mA; Po = 3,15mW Ci = 0; Li = 0; Co = 100uF; Lo = 1mH
Communication, pins 4-7	Ui = 30V; li = 50mA; Pi = 70mW Ci = 0; Li = 0
Intrinsic parameters J12 connector - RS 422 interface board	Uo = 4,2V, Io = 213mA Ci = 12,1µF, Li = 480µH Co = 100 µF , Lo = 9,5mH

## EXPLOSION-PROOF MARK



I M1 Ex ia I Ma

EC type examination certificate: FTZU 10 ATEX 0042X