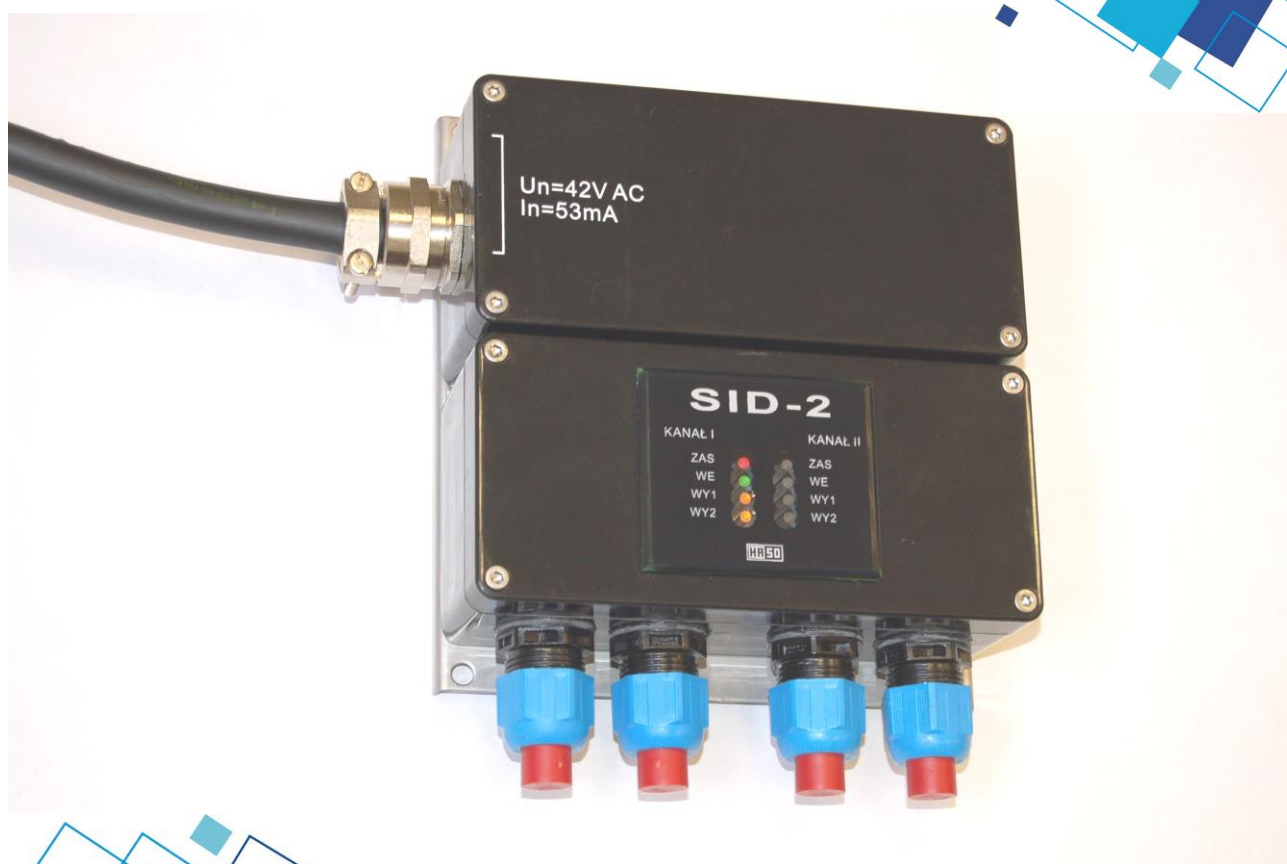


INTRINSICALLY SAFE TWO-STAGE SEPARATOR **SID-2**



Catalogue card



DESCRIPTION

Intrinsically safe Two-Stage Separator SID-2 is a stationary device designed for transmitting two-stage information between intrinsically safe circuits. It is used for separation of intrinsically safe circuits in class "ia" or "ib" in any combination. The separator system is supplied by non-intrinsically safe voltage 42VAC and buffer supplied from inbuilt battery. The separator is a two-channel device, each channel has one input and two independent, separated outputs. The inputs circuit recognize the "diode contact" stage and generate at the outputs a signal analogous to the input signal. The outputs simulate "diode contact" or "contact" and incorporate OPTO-MOS relays. Output no 2 of each channel can be controlled by input state or by power state. The output circuits may also be used as contacts for resistor dividers in the parameterized line circuits. The separator can be connected to six independent, separated intrinsically safe circuits.

SID-2 in the AC power supply unit is an M2 category device, whereas, in the electronic system unit it is an M1 category device with "ia" design.

The application of the separator in energy blocking and cut-off systems will cause the outputs action (cut-off) in the following instances:

- shorting in the input circuit,
- exceeding of permissible input circuit resistance,
- power failure,
- battery discharge (after 24h from disconnection from AC power supply).

The SID-2 separator is a device of M1/M2 category and may thus be used in all underground mines with possible methane or coal dust explosion hazard.

TECHNICAL SPECIFICATIONS

Intrinsically safe Two-Stage Separator SID-2

Power supply	Un = 42 V AC ±20% , In = 53 mA
Working temperatures	from -10°C to +40°C
Working humidity range	from 15% to 99% without condensation
External dimensions	195 x 210 x 70 mm
Weight	3,0 kg
Protection index cover	IP-54
Position during work	any
Inputs	
Open input's voltage	5 V
Closed input's current	5 mA
Max resistance of input circuit	400 Ω
Line check mode	diode in series
Outputs	
Max. voltage	24V
Max power	100 mA

EXPLOSION-PROOF MARK

 I M1/M2 Ex ia mb I

EC type examination certificate: KDB 12 ATEX 0094