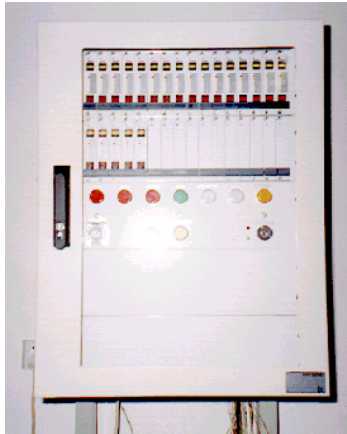




## DMS-32 – the mine mercaptan indication, evacuation system



Certificate: ATEX



DMS-PD: Ground side

Mine box MR 03



### Technical parameters:

#### Ground side:

|                                  |                          |
|----------------------------------|--------------------------|
| Mains voltage:                   | 230V / 50Hz              |
| Max. power input                 | 300VA                    |
| Back-up source for mains voltage | for 20 minutes           |
| Ambient temperature              | 0 to 40 °C               |
| Humidity                         | max. 90%, non-condensing |
| Protection                       | IP 40                    |
| Dimensions                       | 752 x 553 x 510mm        |
| Weight                           | Approx. 70kg             |

#### Underground side:

|                               |   |
|-------------------------------|---|
| Design                        | I M2 Ex d I                                     |
| Feeding from the control card | current source 35 mA with inner voltage to 60 V |
| Ambient temperature           | 0 to 50°C                                       |
| Humidity                      | 0 to 90%  |
| Dimensions                    | 239 x 660 x 138mm                               |
| Weight of DMS-DD              | 20 kg   |
| Weight of MR 03/C             | 3.5 kg  |

### Use:

The mine mercaptan indication DMS32 warns mine workers against the danger arising from an emergency situation in the coal mine by means of inert aromatic substance released into the air flow and it provides their fast recalling from the endangered sections. The underground parts are placed according to user's needs. Their control is provided by the ground side, placed in the dispatcher's workplace.

The indication is designed as a sectional one. The system has increased resistance to accidental blasts during operation and maintenance. The underground side is constructed for operation in the rooms with the methane explosion hazard.

### Description:

The underground mercaptan indication DMS 32 consists of the ground controlling part, to which the underground parts are connected by means of independent lines. The controlling part consists of DMS-DD and MR 03/C. It is a radial-type system allowing the transfer of information on underground part condition to the ground. Polarity inversion and a data command which is superimposed on the supply voltage are used as a command for blasting. The condition of each line is continuously checked by supervisory current, so the disconnection of the line or wrong polarity is indicated immediately. For each line, there is an independent controlling and operating card which provides feeding, controlling and communication with the underground part.

On the front name plate, there are indication elements and control buttons. The cards are connected via a bus and they can be connected to the computer, on which it is possible to carry out the visualization of the processes running in the system. The system is equipped with an automatic test launch.

DMS-32 is fed from the network, it contains a back-up source, which provides feeding in case of power outage for 20 minutes. During operation from the back-up source, the requirement for switching-off is indicated after 10 minutes so that it is available in case of need and lack of feeding. Simultaneously it is possible to lead back-up AC feeding to the ground part, for example from the dispatcher's battery. If feeding and communication cannot be used on one line, the manufacturer will carry out modification for separating, then it is necessary to use one line for communication and the other one for feeding.

### The system consists of:

- DMS-DD: the underground component providing connection to the surface part and to MR 03/C.
- DMS-D: box, fast closure of the underground part.
- MR 03/C: mercaptan relay.
- DMS-DE: polyester box with electronics and connecting connector, placed in DMS-DD.
- Visualization computer: single-purpose computer, on which the software allowing to display and archive the operation of the whole system runs, is an option.

**The catalogue has only those selected important parameters for your final decision. For project designs always ask for the user's guide for this product and any engineering consultation about possible uses.**