

Reed Products for Explosive Environments

Electronic equipment is often used in potentially explosive environments. As such, all components used in these areas have to be carefully selected to prevent them being potential sources of ignition via a spark or arc, i.e. intrinsically safe. These components must be tested such that they will not become an ignition source when subject to short circuits or adjacent component failures. Additionally, they must also switch to a defined state when subjected to overload conditions.

MEDER electronic have developed a number of products which meet the stringent requirements of EN60079-11 where the air and creepage paths as well as the electric strength are defined. Our relays and sensors are optimally designed for these challenges and are used in applications within the **mining, chemical, refinery and fuel dispensing industries.**



MRX Relay

- For the galvanic separation of intrinsically safe and non-intrinsically safe circuits
- Ex-approval:
 - PTB-01 ATEX 2050 U
- Universally applicable
- Maximum peak voltage for electric circuits amounts to `ia` 375 V

- Contact form: 1A...4A, 1C
- Coil voltage (VDC): 5 to 24
- Coil resistance (Ohm): 125 to 5880
- Switching voltage (VDC): 0 to 220
- Switching current (A): 0 to 0.5
- Breakdown voltage: (Min. VDC): 250 to 400



MK8 Sensor

- Contactless switching
- Hermetical leakproofed switching area
- EX-approval:
 - KEMA 00ATEX 1112 X
- Working temperature -40 to +60° C
- Approved acc. IP65

- Contact form: 1A, 1B
- Switching voltage (VDC): 0 to 1000
- Switching current (A): 0 to 1
- Transport current (A): 0 to 2.5
- Breakdown voltage (VDC): 0 to 2000



MK 25 Sensor

- Contactless switching
- EX-approval:
 - KEMA 05ATEX 1106X
- Simple mounting with a standard drilling in a steel plate up to 4mm
- Plate colors black, red, blue, yellow and green available for combination possibilities for various applications
- Approved acc. IP65

- Contact form: 1A, 1B
- Switching voltage (VDC): 0 to 1000
- Switching current (A): 0 to 1
- Transport current(A): 0 to 2.5
- Breakdown voltage(VDC): 0 to 2000



Opto-coupler

- With transmission frequencies up to 50 kHz
- Universally applicable
- Maximum peak voltage for electric circuits amounts to `ia` 375 V
- Ex-approval:
 - PTB 01 ATEX 2042U
 - PTB 01 ATEX 2043U
 - PTB 01 ATEX 2049U

- Isolation voltage (VDC): 4000 to 10000
- CTR I_c/I_f (at I_f = 10mA): 0.8
- Switching time: (µsec): 9.7
- Creeping distance air path In-/Output (mm): >14.5

