

SMART3G-Grl

Gas Detectors for Group I application



- Taratura non intrusiva (versione con Display)
- Facile sostituzione dei sensori
- Ampia gamma di sensori utilizzabili e di gas rilevabili
- Segnale standard 4-20 mA su 3 fili
- Ampia scelta di accessori per l'installazione e la manutenzione
- Inseguitore di zero e autodiagnosi continua del sistema
- Certificati ATEX per Gruppo I

I rivelatori di gas serie **SMART3G-Grl**, vengono impiegati per rivelare la presenza di sostanze infiammabili e gas tossici in miniere, tunnel o aree classificate **Gruppo I**.

La serie **SMART3G-Grl** è stata concepita per offrire ai clienti un'ampia gamma di soluzioni, secondo le specifiche necessità.

La versione con display, **SMART3G-Grl-D** è dotata di un display luminoso a 4 cifre che visualizza in tempo reale la concentrazione di gas misurata, permettendo, inoltre, una **taratura in campo non intrusiva** tramite magneti a effetto Hall che permettono di operare sullo strumento senza doverlo aprire o declassificare l'area.

Gli **SMART3G-Grl** sono certificati ATEX per Gruppo I.

- Non-intrusive one man calibration (display version)
- Easy sensor replacement
- Wide range of sensors and detectable gases
- Standard 4-20 mA 3 wires output
- Wide range of accessories for installation and maintenance
- Zero tracking and system self diagnosis
- ATEX certified Group I

SMART3G-Grl gas detectors are employed to detect the presence of flammable and toxic gases in mines, tunnels and areas classified as **Group I**. The **SMART3G-Grl** line has been designed to offer a wide range of alternatives that grant customers the best solution to their specific requirements.

Also available with front display, **SMART3G-Grl-D** offers a 4 digits backlit display and 5 mode status LEDs for the gas concentration reading. This series features **non-intrusive magnetic calibration** for an accurate and easy calibration via Hall-effect switches, without opening the instrument and declassifying the area.

SMART3G-Grl detectors are ATEX certified for Group I.

- Etalonnage local non intrusif (version display)
- Echange du capteur aisé
- Large gamme de capteurs disponibles et de gaz détectables.
- Signal sortie 4-20 mA 3 fils
- Large gamme d'accessoires pour l'installation et la maintenance.
- Zéro automatique et auto-diagnostic continue du système
- Certifications ATEX Group I

Les détecteurs de gaz de la série **SMART3G-Grl** sont utilisés pour détecter la présence de gaz combustibles et substances toxiques en mines, tunnels et endroits classifiés comme **Groupe I**.

La série **SMART3G-Grl** a été élaborée afin d'offrir une large gamme de solutions qui satisfassent toutes les nécessités de la clientèle.

La ligne **SMART3G-Grl-D**, avec afficheur, offre la lecture immédiate de la concentration relevée sur l'écran LCD à 4 chiffres. Cela permet aussi un **étalonnage local non intrusif** à l'aide des aimants à effet Hall, permet d'intervenir sur les appareils, sans les ouvrir, ni mettre la zone hors service. Les détecteurs **SMART3G-Grl** sont certifiés ATEX pour Groupe I.



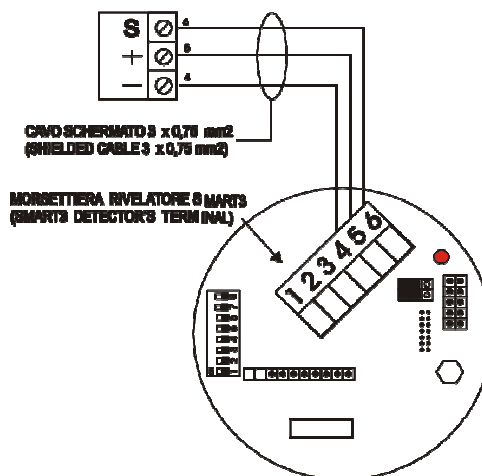
Technical specifications

| | |
|--|---|
| Sensing element | Pellistor sensor for flammable gas Electrochemical cells for toxic gas IR sensors for HC, CO ₂ , Refrigerant |
| Measuring range | %LEL for flammable gases ppm for toxic gases and refrigerants % vol for O ₂ and CO ₂ |
| Power supply | 12-24Vdc -20% +15% |
| Consumption at 12Vdc | 90mA (medium); 130mA (max) Pellistor 50mA (medium); 70mA (max) electr.cell 90mA (medium); 130mA (max) IR |
| Visual indications | SMART3G-Grl: flickering LED SMART3G-Grl-D: 3 red LED's for Alarm yellow for Fault, green for PS |
| Display characteristics | 4 digits, 7.5 mm high, 7 segments |
| Proportional output | 4-20 mA (200 Ω) |
| Serial Output (optional) | RS 485 and proprietary protocol for addressable gas control panels |
| Relay outputs, with mode status LEDs (optional) | 3 relays with tension free changeover contact 24V-1A (non-latching type) |
| Accuracy | from ±2% to ±5% FS (depending on sensor type) |
| Repeatability | from ±2% to ±5% FS (depending on sensor type) |
| Warm-up time | 2 minutes |
| Stabilization time | 60 minutes (for test/calibration) |
| Response time T90 | From 15 to 30 sec. (depending on sensor type) |
| Storage temperature | -25°C ÷ +60°C (or limits of the sensor) |
| Operating temperature | -20°C ÷ +60°C for Pellistor and IR sensors, -20°C ÷ +50°C for cells Always refer to the detector's label |
| Relative humidity | 20-90% RH / 40°C (5-95% RH non- condensing on request) |
| Housing | Stainless steel junction box and sensor head |
| IP rating | IP65 (IP67 on request with: STGD/AD3 adapter and IP67 cable gland); |
| Operative pressure | 80-110 KPa |
| Max. air velocity | < 6 m/s |
| Weight | 1700 g Ex d |
| Dimension (approx) | L.130 H.180 D.90 mm |
| Orientation | Detector must be mounted sensor head downwards |
| Certificates | CES114ATEX034 |
| ATEX marking | I M2 Ex d I Mb |
| EMC Reference | EN 50270, EN 61000-6-4 |
| Standards | |

Electrical connections

COLLEGAMENTO USCITA 4-20 mA SMART3 A CENTRALE ANALOGICA (4-20 mA SMART3 CONNECTION TO ANALOG CONTROL UNIT)

MORSETTIERA CENTRALE 4-20 mA
(4-20 mA CONTROL UNIT'S TERMINAL)



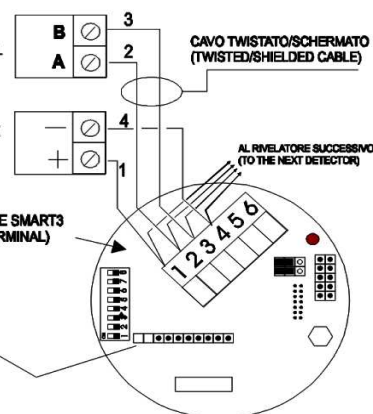
COLLEGAMENTO USCITA RS485 SMART3 A CENTRALE "IDF" (RS485 SMART3 CONNECTION TO AN ADDRESSABLE CONTROL PANEL)

MORSETTIERA CENTRALE "IDF"
("IDF" ADDRESSABLE CONTROL
UNIT'S TERMINAL)

MORSETTIERA ALIMENTATORE
(POWER SUPPLY TERMINAL)

MORSETTIERA RIVELATORE SMART3
(SMART3 DETECTOR'S TERMINAL)

SCHEDA "IDF" (OPZIONALE)
("IDF" BOARD, OPTIONAL)



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