



Audio-visual signal generator type AVS 3.1 to the addition of intrinsically safe equipment

The intrinsically safe audio-visual signal generator type AVS 3.1 has been developed to conform with the ATEX directive 2014/34/EU. It fulfils the standards EN 60079-0, EN 60079-11, EN 50303 and EN 61000.

The AVS 3.1 has one control input each for Alarm 1 and Alarm 2. The control inputs need a TTL level and are referred to minus:

Alarm 1 switches only the optical generator with a signal frequency of 0.5 Hz.

Alarm 2 switches the optical and acoustic generator with a signal frequency of 1 Hz.

Alarm 2 has priority over Alarm 1.

The control inputs are switched by a minus referred signal or an open input.

The radiation of the alarm signals occurs in all directions.

The alarms can be switched off manually till the next alarm initiation.

A functional test can also be made by means of a second device switch.

The optical signal device is equipped with ten ultrabright LEDs. It pulses with the frequency of the Alarm 1 or Alarm 2. The brightness of the signal is independent of the operating voltage.

The acoustic signal device consists of a electro-mechanical tone generator which produces a sweeping signal. This signal is switched with the frequency of Alarm 2. The loudness of the signal increases with the operating voltage.

The housing consists of antistatic plastic and the mounting plate of high-grade steel. The steel hanger serves as a suspension. Assembly holes at the lower surface serve the attachment to the attached equipment or a connection box.

Technical Data

Zone, Explosion protection rating	Ex I M1 Ex ia I Ma
Supply voltage	9...16 V–
pulsating current consumption	max. 100 mA
effective current consumption	max. 50 mA
Surroundings temperature	-20...+60°C
Humidity	0... 98% rel., non condensing
Dimension	B 100 mm, T 77 mm, H 170 mm
Weight	1.5 kg
Switching signal input (quiescent/operating current)	
Alarm 1, TTL-level, low active	5 V
Alarm 2, TTL-level, low active	5 V
Acoustic signal generator	
Signal tone fast sweeping	2400-2850 Hz
Sound intensity	max. 103 dB
Signal frequency Alarm 1	no
Signal frequency Alarm 2	1 Hz
Optical signal generator	
Flashing light	10 red, ultra highbright pulsed LEDs
Expected lifetime	>10000 hours
Signal frequency Alarm 1	0.5 Hz
Signal frequency Alarm 2	1 Hz
Housing	glass fibre reinforced duroplastic Polyester, surface resistance <10 ⁹ Ohm, impact strength >7 Joule
Type of protection	IP 65