

ATEX CABINETS : CABINET Exp ZONE 2-22

FUNCTION :

The use of pressure vessels simplifies the operation of unprotected devices such as PCs in hazardous areas within Zone 2.

The protection mode is based on the principle of maintaining a constant pressure with air or a shielding gas to avoid an explosive mixture that would form near the device inside the unit pressure vessel.

Pressurized and purged cabinet designed to receive a PC and its screen for installation in zones 2 and 22. It is equipped with a keyboard with mouse or touchpad, a purge and pressurization controller, a box for disconnecting incoming signals and an air control.

Optionally, a wireless antenna, an entry for a hand scanner, a remote control box are available.

Floor, wall, table or recessed mounting.

Made of painted steel, in 304L or 316L stainless steel, blasted or painted.

You can install your CPU and your screen. This is an advantage because you are no longer dependent on imposed equipment and you can replace it at any time without touching the certification of your cabinet.

Screens of 15, 17, 19 or 21 ". Vertical or horizontal central units.



Full cabinet on galleys

KEYBOARD (106 membrane keys with 38mm trackball) :

- IP65
- With a 38mm trackball for precise and safe cursor control
- Fully functional keypad with separate keypad and control keys
- Recessed installation in the cabinet with seal and screws from the inside
- Lexan keypad on 3mm aluminum plate, electronic under keypad in safe area in cabinet Ex-p.
- Available in QWERTY or other versions.
- If external mounting, an Ex-i interface for keyboard and mouse are mounted in the cabinet.



PRESSURE PURGE CONTROLLER :

A simplified system of the pressure vessel consists of two elements and the enclosure.

1. FS840 control unit for process control and monitoring
2. SD840 Sintered Metal Valve for Air Intake and Powered Control by the compressed air network.

With the F840 controller can purge the speaker using the solenoid valve SVD.L.

In this case, the SVD.L replaces the metal air injector sintered.

Generally before starting, the pressure vessel must be purged with air or shielding gas to remove any mixture explosive that could be inside the enclosure. This procedure automatic is called purge process. In dust zone this purge should not be performed.

If the operator is not sure, the atmosphere inside the enclosure is less than 25% of the lower explosive limit (LEL) (EN 60079-14 Chapter 13.4), the envelope must be purged to reach an atmosphere inside the enclosure. Otherwise, the purge is not not required..

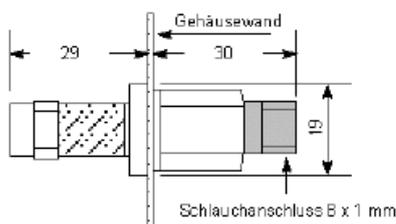


Purge controller and FS840 pressurizing equipment

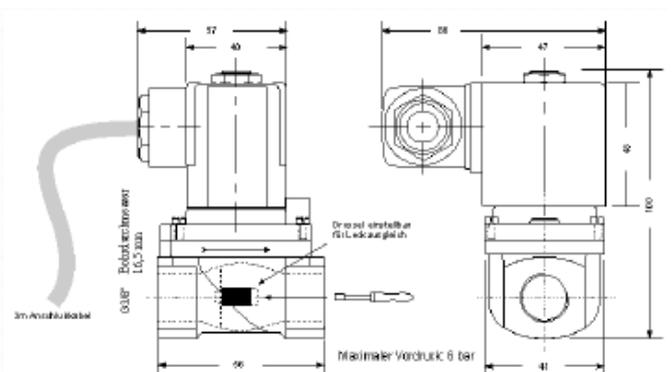
PURGE SOLENOID VALVE AND MANUAL VALVE :

Manual solenoid valve with sintering once set, maintains an overpressure of +/- 2.5mbar in the cabinet.

The automatic solenoid valve SVD-L opens to realize the purge and once it is finished, it closes, but a bypass lets out a thin stream of air for maintain an internal pressure of +/- 2.5mbar. This pressure is adjustable with a screwdriver that is introduced to inside the valve (see drawing).



Sintered manual valve



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SIGNAL BREAKING HOUSING :

The SR852 relay interface is a non-intrinsic separation of signals under incoming voltage in a pressurized cabinet.

It has 8 or 16 NO contacts that close when the circuit of overpressure controller command gives green light..

The contacts are doubled in series to ensure independent for meet the 954-1 standard, category 3.



Complete cabinet for housing

WIFI ANTENNA :

This antenna can be used in zones 1 or 2 in the presence of vapors or flammable gases, with apparatus of groups IIA, IIB & IIC for all temperature classes. It is also usable in zone 21/22 in the presence of flammable powders with a temperature max surface area of 60 ° C. The security rules apply. The connection to the electronic equipment is done in a box Ex-d. It can only be used in the temperature range indicated.

Antenna cable : 1.5 meters low losses

Central frequency : 2.4 or 5.7 GHz

Bandwidth : +/- 100 MHz

Impedance : 50 ohms

Stationary : Less than 1.2

Radiation : Directional Omni

Maximum power : 50 continuous watts

Connector : On request

Radiant element : ¼ wave ground plane

Gain : Between 5 and 12dBi frequency function



External wifi antenna