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LogiCO2 0477 SMB and Safety Valve with Filter Instruction Manual

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LogiCO2 0477 SMB and Safety Valve with Filter

Product Information

The Safety mode box (SMB) with a safety valve is an accessory for the Mk9 and Mk90 CO2 Safety System. It is designed to shut off the CO2 gas distribution in case of a leakage. The SMB consists of a magnetic valve, electronics box, and cabling. The safety valve is specifically designed for usage with CO2 pressure ranging from 0.15 to 30 bar or 2.2 to 435 Psi.

Functionality

The SMB has a 1-meter Cat5 cable connected to the electronics box. The cable is equipped with a blue RJ45 connector that needs to be plugged into the blue alarm signaling output cable side from either the Mk9 or Mk90 CO2 sensors. When the CO2 sensor detects a high CO2 concentration, the magnetic valve will automatically shut off the CO2 gas distribution. The valve is failsafe and will shut off even in case of power loss.

Installation

To ensure efficient operation, it is recommended to install the magnetic valve as close as possible to the CO2 tank in order to minimize potential CO2 leakage before reaching the safety valve. The electronics box should be installed in a suitable location that provides mechanical protection. To access the mounting screw holes, simply turn the cover counterclockwise by 1/8 turn.

Technical Specifications for SMB

- **Power supply:** Via CO2 Sensor 1A/24V AC/DC
- **Relays:** 24Vdc, 68mA
- **Material:** PC/ABS
- **Operating pressure:** 0.15 to 30 bar / 2.2 to 435 Psi
- **Bursting pressure:** >150 bar / 2 175 Psi
- **Treaded connection:** 1/4 -18NPT
- **Dimensions (WxHxD):** 78x78x37 mm / 3x3x1.5
- **Ingress protection:** IP55

Safety

Safety mode box with safety valve for CO2 Safety System.

Important: Retain this instruction manual for future
reference: Please read these instructions carefully before start-up and use. Failure to follow any of these instructions could void product warranties. LogiCO2 assumes no responsibility for claims arising out of improper or careless use or handling of their products.
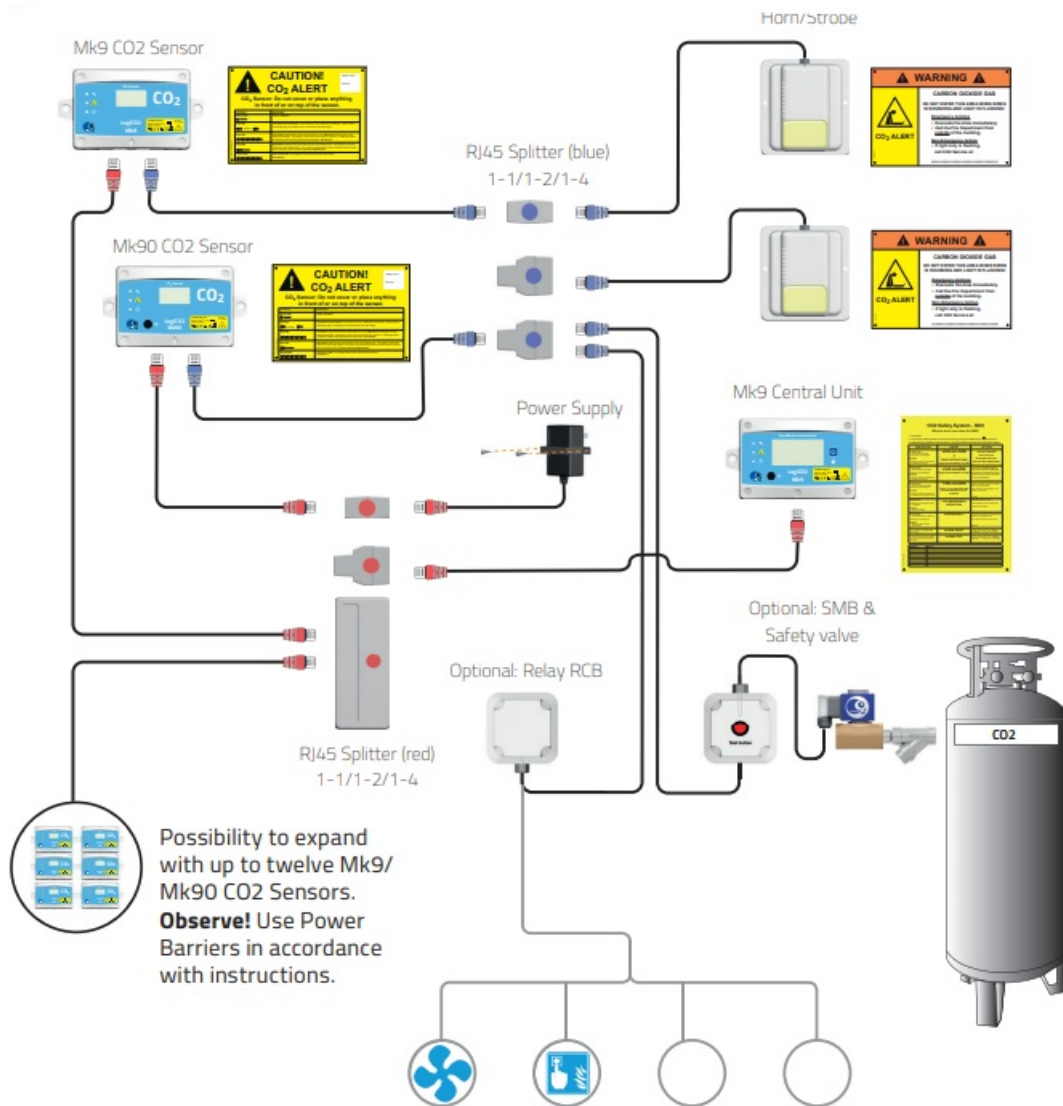
Technical specifications for SMB

- **Power supply:** Via CO2 Sensor
- **Relays:** 1A/24V AC/DC
- **Material:** PC/ABS
- **Operating pressure:** 0,15 to 30 bar / 2,2 to 435 Psi
- **Bursting pressure:** >150 bar / 2 175 Psi
- **Treaded connection: 1**/4" -18NPT
- **Dimensions (WxHxD):** 78x78x37 mm / 3"x3"x1.5"
- **Ingress protection:** IP55

Function

- Safety mode box (SMB) with safety valve is an accessory for the Mk9 and Mk90 CO2 Safety System that shuts off the CO2 gas distribution in case of a leakage. It consists of a magnetic valve, an electronics box, and cabling. The Safety valve is designed for usage of CO2 with a pressure of 0,15 to 30 bar or 2,2 to 435 Psi.
- SMB has a 1 meter Cat5 cable from the electronics box, with a blue RJ45 connector that is plugged into the blue alarm signaling output cable side from either the Mk9 or Mk90 CO2 sensors. When the CO2 sensor indicates a high CO2 concentration, the magnetic valve will shut off the CO2 gas distribution. The valve is fail-safe (shuts off at power loss).
- The magnetic valve should be installed as early as possible in the CO2 gas distribution chain (close to the CO2 tank) to avoid possible CO2 leakage before the safety valve.
- Install the electronics box in a suitable place where it is mechanically protected. Remove the cover by turning it counterclockwise 1/8 turn to access the mounting screw holes.

Installation

The connection diagram below shows an example of how the SMB with safety valve can be installed to a CO2 Safety System (Mk9 and Mk90).

Annual function control of the safety valve

Instruction on how to clean the filter, if the SMB safety valve is fitted with a filter:

To test the safety valve, make sure that the indication light on the valve is ON, indicating that the valve is powered on and open. Test the opening and closing of the valve by pressing the test button on the SMB connection box. The indication light on the valve should turn OFF and you should hear a clear clicking sound.

Please observe that the flow of CO2 must be turned off manually, by closing the emergency safety valve – and verify that there is no gas pressure in the system. This is very important since you are about to open the system to clean the filter.

Any debris should be caught inside the filter. By using a socket wrench, carefully remove the filter from the valve and clean it.

After cleaning, make sure that the filter gasket is in place and mount the filter again firmly. Carefully open the

emergency safety valve to allow the flow of CO2 again.

Annual function and installation check of the SMB and safety valve with filter

Checklist SMB and safety valve with filter	YES	NO
Is the SMB safety valve installed on the downside from the emergency safety valve?		
Is the indication light on the safety valve ON?		
Does the indication light on the safety valve turn ON and OFF when the test button is pressed?		
Does the valve make a clicking sound when the test button is pressed?		
If the SMB safety valve is fitted with a filter, has the filter been cleaned?		

SMB and safety valve installed with filter

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Documents / Resources

LogiCO2 0477 SMB and Safety Valve with Filter [pdf] Instruction Manual
Mk9, Mk90, 0477 SMB and Safety Valve with Filter, SMB and Safety Valve with Filter, Safety Valve with Filter

References

- **Welcome to LogiCO2 - Logico2**
- **User Manual**