

Kidde Fire Protection Inert Gas System (400 Series)



Component Description:

Selector Valves

Effective: August 2018
KDS 22-37140-XXX Rev AA

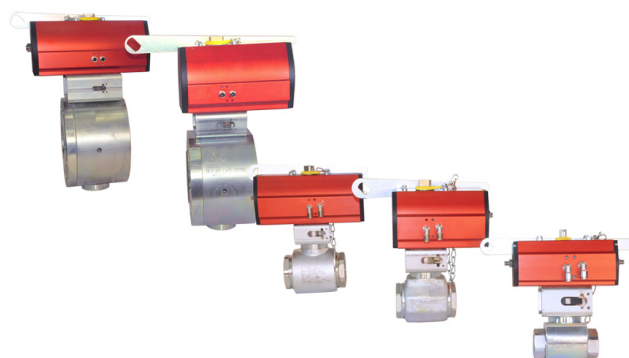
FEATURES

- For Approvals, see the "COMPATIBILITY" table.
- *REACH and RoHS compliant*

DESCRIPTION

The selector valves route the agent from a central cylinder bank to the relevant area being protected. All Kidde IGS selector valves are 2-way ball valves with full bore. The selector valve actuator operates pneumatically from manifold pressure routed through a pressure regulator on the backplate manifold and the respective backplate solenoid valve.

Selector have BSPP threaded inlet and outlet ports for connection to the distribution piping for sizes 1/2" to 2". For 3" and 4" selector valves, uses DIN 2638 flanges to connect to the system piping.



ORDERING INFORMATION

Part Number	Description
22-37140-025	Selector valve, DN 25, 8-10 Bar Actuator
22-37140-040	Selector valve, DN 40, 8-10 Bar Actuator
22-37140-050	Selector valve, DN 50, 8-10 Bar Actuator
22-37140-080	Selector valve, Flange DN 80, 8-10 Bar Actuator
22-37140-100	Selector valve, Flange DN 100, 8-10 Bar Actuator

COMPATIBILITY

Series	DIOM P/N	Approvals*
Kidde Fire Protection IGS	06-237518-001	LPCB
* For additional listings, contact Kidde Fire Protection		

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3-16 SELECTOR VALVES

Standard EN12094-5 requires that selector valves be opened within a maximum time span of 3 seconds, the following rules will be used for designing all selector valve systems:

- Always confirm the duration for which the solenoid valve will be kept energized by the control panel. The solenoid must be energized for the full discharge time.
- Removal of an electric actuator from the solenoid on the back-plate manifold shall result in an audible and visual indication of system impairment at the extinguishing control panel.
- A handle shall always be provided with selector valves for manual opening or closing.

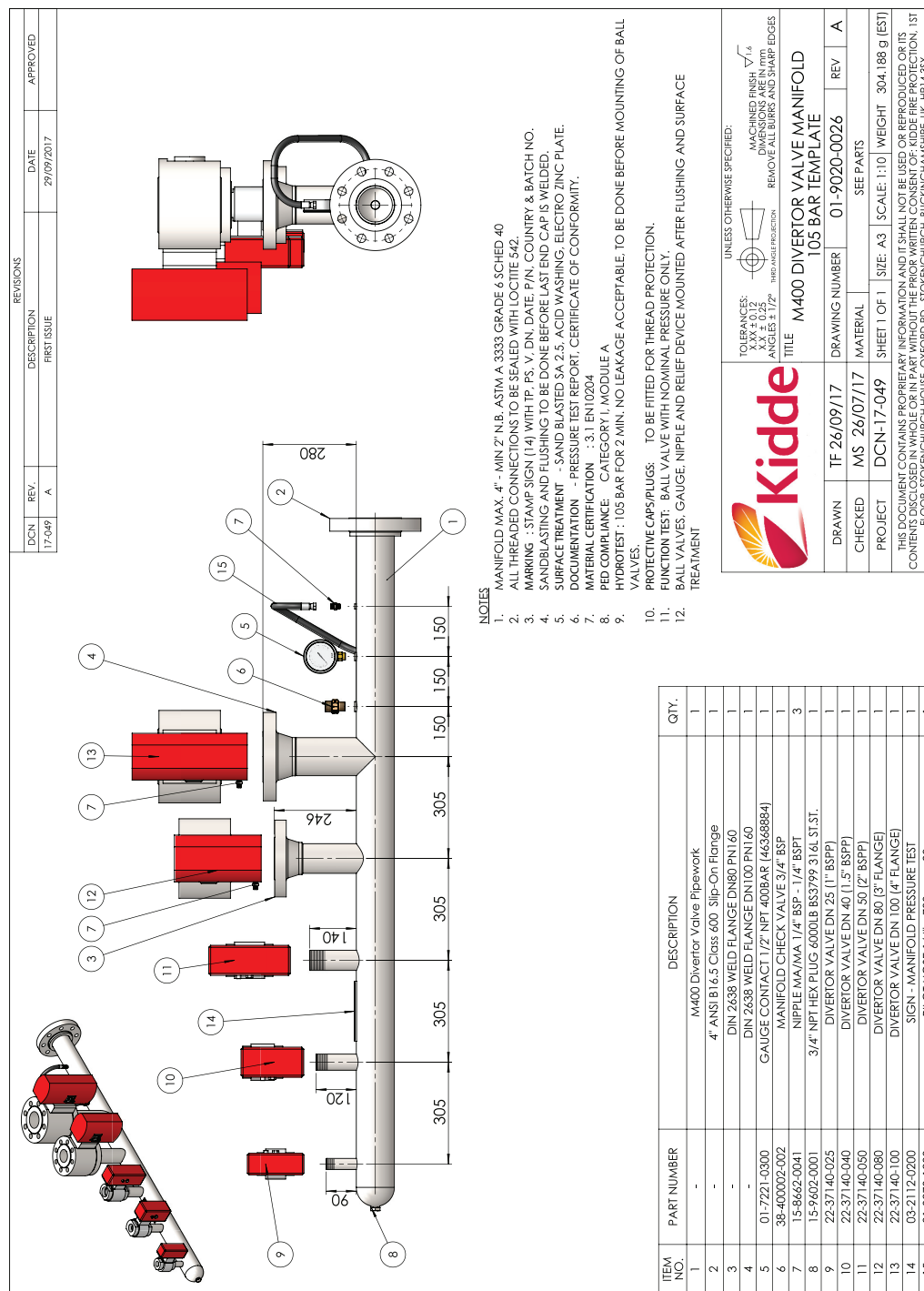


Figure 3-3. Typical Distribution Manifold Design

3-16.1 Back-Plate Manifold for Selector Valves

The solenoid valves with manual override used for controlling the opening of the Selector valves are supplied as part of a back-plate manifold which holds the required numbers of solenoid valves. The back-plate manifold receives pressure from the discharge manifold via a pressure regulator reducing the supplied pressure to approx. 8 bar.

Note: The solenoid on the back-plate manifold leading to the hazard being protected by the discharge must be continuously powered during the system discharge.

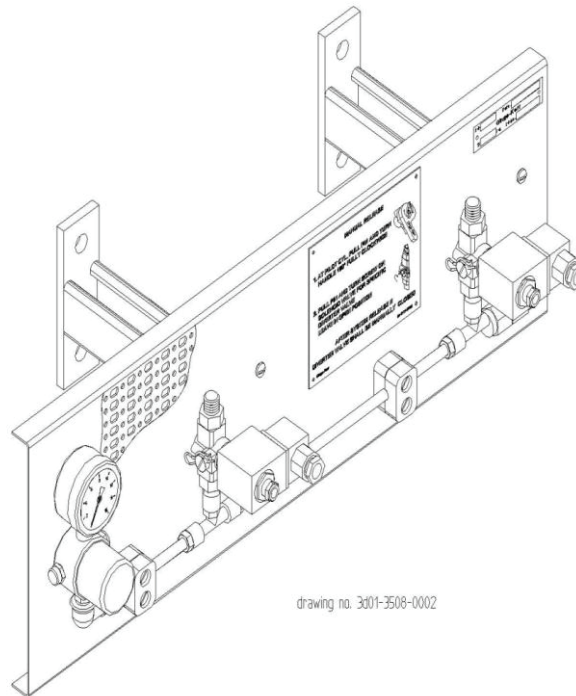


Figure 3-4. Back-Plate Manifold Arrangement

3-17 SELECTING NUMBER OF NOZZLES

The number of nozzles, their size and their location shall be such that:

- The desired design concentration is achieved in all parts of the protected enclosure within the specified discharge time
- The discharge will not unduly splash flammable liquids or create dust clouds that could extend the fire
- The discharge will not create an explosion or harm personnel occupying the enclosure
- The discharge will not adversely affect the contents or integrity of the enclosure.

Evaluate the height of the nozzles with regard to where the fire may start, ensuring the minimum and maximum height requirements are met.

When selecting the number of nozzles required the following factors may affect the distribution of the discharged Agent and shall always be taken into account:

- The shape of the enclosure including the area and volume of any raised floor, suspended ceiling or installed equipment (chimney effect).
- The location and shape of any obstructions
- The location of pressure relief openings
- Any architectural considerations (i.e. installation in a warehouse may allow for 1 ½" nozzles whereas an office environment would require a number of smaller nozzles).