

Valve Assembly

The container valve is the result of extensive research and development and incorporates many unique safety features. The valve assembly is factory-fitted to the container and is supplied pre-assembled with a low pressure switch (to be ordered separately), pressure gauge and burst disc.



Figure 3 - Valve Assembly

Principle of Operation

The SAPPHIRE valve is a high-flow-rate device specially designed for use in fire systems. Operation is by means of a pressure-differential piston. Container pressure is used within the valve to create a positive force on the piston, sealing the valve closed. Operation of the valve occurs when the upper chamber is vented faster than the 'make up device' in the shuttle can replace the pressure. Thereby allowing, the shuttle to be forced up, and free flow of Novec™ 1230 from the valve. Upper chamber pressure is released by the electrical, mechanical or pneumatic actuator.

The valve incorporates the following features:

- A pressure operated safety release device (burst disc).
- Main outlet, fitted with anti-recoil cap.
- A connection for a pneumatic, mechanical or electrical actuator, fitted with safety cap.
- A connection for an electrical solenoid.
- A connection for the pneumatic actuation port.

25 mm (1 in.) Valve Assembly

Part No. 570535

50 mm (2 in.) Valve Assembly

Part No. 570536

Technical Information

25 mm (1 in.) Valve

Body Material:	Brass CZ 121
Outlet Anti-Recoil Cap Material:	CZ122
Max. Working Pressure:	34 bar (493 psi)
Outlet:	25mm (1" BSPP)
Low Pressure Switch Port:	1/8" NPT
Gauge Port:	1/8" NPT
Pilot Pressure Port:	1/4" BSPP
Solenoid Adaptor Port:	1/8" NPT
Overall Size:	130mm (L) x 62mm (Dia) (5.12" (L) x 2.44" (Dia))
Weight:	2.96 kg (6.526 lbs)
Equivalent Length:	6.096 m (20 ft)

Technical Information

50 mm (2 in.) Valve

Body Material:	Brass CZ 121
Outlet Anti-Recoil Cap Material:	CZ122
Max. Working Pressure:	34 bar (493 psi)
Outlet:	50 mm (2 in. BSPP)
Low Pressure Switch Port:	1/8 in. NPT
Gauge Port:	1/8 in. NPT
Pilot Pressure Port:	1/4 in. BSPP
Solenoid Adaptor Port:	1/8 in. NPT
Overall Size: 50mm (2 in)	173 mm (L) x 100 mm (Dia) (6.12 in. (L) x 3.94 in. (Dia))
Weight: 50 mm (2 in)	9.18 kg (20.238 lb)
Equivalent Length: 50mm (2 in)	10.668 m (35 ft)