

Kidde ECS Fire Suppression System Marine Series Component Description



Effective: June 2014

K-90-9190M

2300 cu. in. Nitrogen Pilot Cylinder with Pressure Switch

FEATURES

- *Contents Pressure Gauge with Supervisory Pressure Switch*
- *For Use with Plain or Grooved Nut Discharge Heads*
- *Siren Driving Capability; Can Operate up to Ten Nitrogen Powered Sirens*
- *When Manifolded, Two 2300 cu. in. Cylinders Can Operate Twenty Nitrogen Powered Sirens*
- *Safety: Valve Protection Cap, Safety Burst Disc Assembly, Actuation Port Safety Cap*
- *RoHS Compliant*

DESCRIPTION

The Kidde ECS System 2300 cu. in. capacity Nitrogen Pilot Cylinder with Pressure Switch is factory charged to 1800 PSIG (124 bar) with dry nitrogen and is designed for use as a pilot cylinder or siren driver cylinder. The cylinder valve is a 5/8-in. bore design and is fitted with a contents supervisory pressure switch (Switch-In-Gauge). This gauge allows the cylinder to be monitored continuously from a suitable panel (see data sheet K-90-9160M). The valve is designed to accept the full range of Kidde ECS Systems control heads (excluding the Stackable Electric Control Head, P/N 48650001) and either the Plain Nut Discharge Head (P/N 872450) or the Grooved Nut Discharge Head (P/N 872442). A single siren driver can be used to operate up to ten sirens with a maximum pipe length of 500 ft. (152.4 m). Additionally, two cylinders can be manifolded to operate up to twenty sirens with a maximum pipe length of 500 ft. (152.4 m).

OPERATION

The 2300 cu. in. Siren Driver is designed for use as a siren driver only; it is not listed for any other function. The cylinder is operated by a Pressure Operated Control Head (P/N 878737).

INSTALLATION



Nitrogen cylinders must not be moved unless the discharge and control heads have been removed and the protection caps are installed. Failure to do so could result in inadvertent discharge which could cause serious bodily injury, death or property damage.

Each 2300 cu. in. cylinder assembly is installed using two straps installed at the specified heights. Rotate the cylinder to the correct orientation before completely tightening the bracket or connecting the control head or discharge nut (which should already be attached to the system piping); the cylinder contents gauge should be facing outwards.



Use 3/4-in. discharge hoses (P/N 06-118207-001 [18.00-in. length] or P/N 06-118207-002 [14.75-in. length]) to connect the discharge head to discharge (siren effluent) piping/tubing. The piping to the discharge sirens should be either 1/4-in. schedule 40/80 stainless steel pipe or 5/16-in. x 0.032-in. wall tubing. Fittings should be rated for a maximum working pressure of no less than 3000 PSIG (207 bar).

MAINTENANCE

The pressure of the nitrogen cylinder should be checked daily, and the cylinder should be visually inspected during periodic maintenance. The cylinder should be hydro-tested (or be subject to a full external visual inspection) every five years in accordance with DOT CFR 49 and CGA (Compressed Gas Association) Pamphlet C-6.

DIMENSIONS

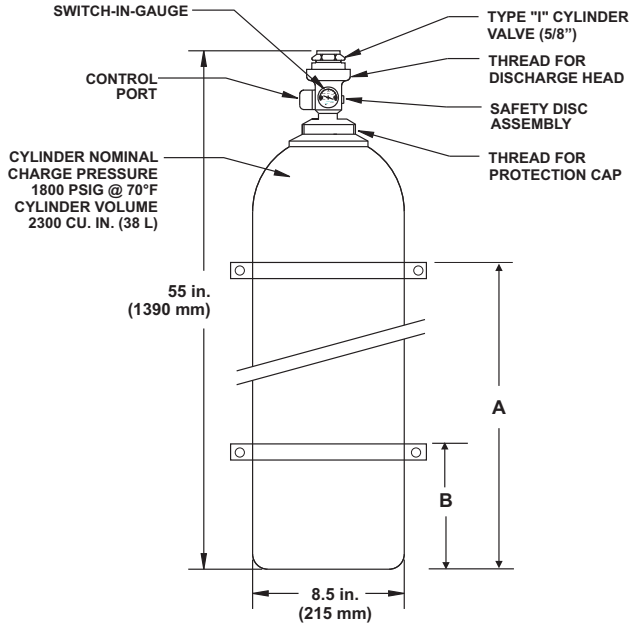


Figure 1. 2300 cu. in. Nitrogen Pilot Cylinder with Pressure Switch

ORDERING INFORMATION

Part Number	Description
90-102300-200	2300 cu in Nitrogen Cylinder with Pressure Switch

SPECIFICATIONS

- Charge Pressure:** 1800 PSIG @ 70°F (124 bar @ 21°C)
- Cylinder Volume:** 2300 cu. in. (38 L)
- Charged Weight:** 117 lb. (53 kg)
- Charge Weight:** 12.2 lb. (5.5 kg)
- Cylinder Type:** Seamless, DOT3AA-2015
- Cylinder Finish:** Black, Painted
- Cylinder Gauge:** With Supervisory Pressure Switch
- Materials:**
 - Valve-** Forged Brass
 - Siphon Tube-** None Fitted
 - Cylinder-** Chrome, Moly Steel
- Operating Temperature Range:** 30°F to 130°F (0°C to 54°C)
- Height (Including Protection Cap):** 67.8 in. (1725 mm)
- Transport Information:** Class 2.2, I.D.#UN1066

Table 1: 2300 cu. in. Nitrogen Pilot Cylinder Mounting Dimensions

A		B		Hole Spacing	
in.	mm	in.	mm	in.	mm
42 to 44	1067 to 1118	12 to 14	305 to 356	10.4	263

COMPATIBILITY

Series	For Use With
Kidde ECS HFC-227ea	X
Kidde ECS Advanced Delivery FM-200®	X

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