

Kidde Fire Systems

ADS™ Component Description



Effective: November 2023
K-85-200 Rev AC

Nitrogen Driver Cylinder and Valve Assembly

FEATURES

- Includes Pressure Gauge and Port for Supervisory Pressure Switch
- UL Listed
- FM Approved
- RoHS Compliant

DESCRIPTION

Kidde Fire Systems ADS™ Fire Suppression Systems (ADS systems) uses Nitrogen gas pressure from a separate storage cylinder to propel fire suppression agent (Fluoro-K™ Fire Suppression Clean Agent, 3M™ Novec™ 1230 Fire Protection Fluid, or HFC-227ea agent) through the piping system. The Nitrogen can propel the agent farther through the pipe network allowing for the placement of storage cylinders remotely from the protected hazard.

SPECIFICATIONS

Charge Pressure:

1800 PSIG @ 70°F
(124 bar @ 21°C)

Contents:

Nitrogen (A-A-59155 Grade A, Type 1)

Safety Relief:

Burst Disc 2650-3000 PSI at 70°F
(183-207 BAR at 20°C)

Cylinder Type:

Seamless, DOT3AA-1800

Cylinder Finish:

Black, Painted

Operating Temperature Range:

-40°F to 130°F
(-40°C to 54°C)

Transport Information:

Class 2.2, I.D.#UN1066

Empty Weight:

Part Number	lbs.	kg
85-102300-001	98	44.5
85-104070-001	184	83.5
85-104890-001	270	122.5



Figure 1. ADS System Nitrogen Drivers

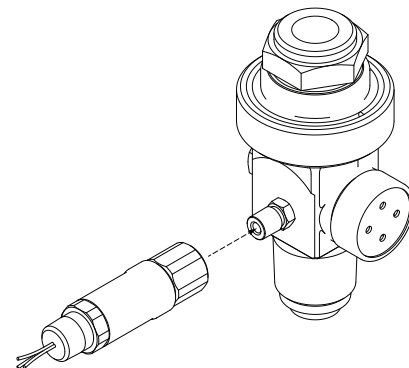


Figure 2. Installation of Nitrogen Driver Supervisory Pressure Switch to Nitrogen Driver Valve

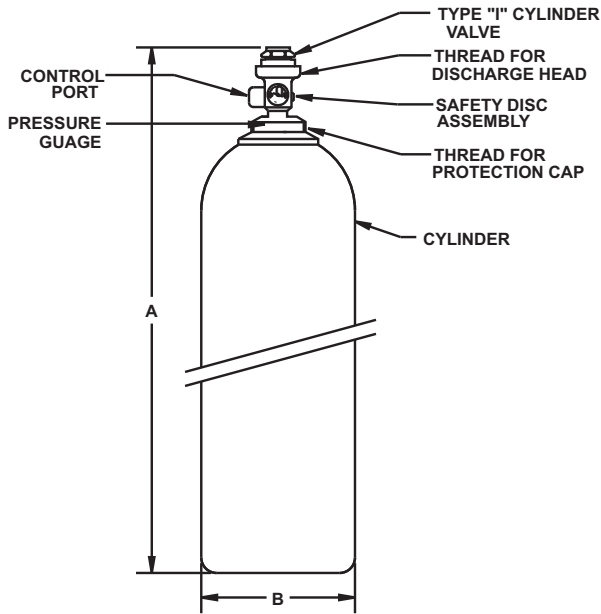


Figure 3. 2300, 4070 and the 4890 cu. in. Nitrogen Drive Cylinder and Valve Assemblies, Vertical Mount Only

Table 1. Dimensions, Agent Nitrogen Cylinder/Valve Assemblies for Vertical Installation Only

Part Number	Volume		Height A		Diameter B		Burst Disc Color
	in.3	m3	in.	mm	in.	mm	
85-102300-001	2300	0.0377	55	1390	8.5	215	White
85-104070-001	4070	0.0667	62	1570	10.5	266	White
85-104890-001	4893	0.0801	69	1753	11.25	28	White

Note: All drivers are equipped with a port for attaching a supervisory pressure switch.

ORDERING INFORMATION

Part Number	Description	For use with HFC-227ea Agent Cylinder Size	For use with Fluoro-K Fire Suppression Clean Agent Cylinder Size	For use with 3M Novec 1230 Fire Protection Fluid Cylinder Size	Number of Drivers Required
Nitrogen Driver Cylinders					
85-102300-001	2300 cu. in. Nitrogen Driver Cylinder	225 lb. (81 L)	200 lb. (81 L)	200 lb. (81 L)	1
85-104070-001	4070 cu. in. Nitrogen Driver Cylinder	395 lb. (142 L)	350 lb. (142 L)	350 lb. (142 L)	1
		675 lb. (243 L)	600 lb. (243 L)	600 lb. (243 L)	1 or 2*
85-104890-001	4890 cu. in. Nitrogen Driver Cylinder	450 lb. (182 L)	450 lb. (182 L)	450 lb. (182 L)	1
		1010 lb. (368 L)	900 lb. (368 L)	900 lb. (368 L)	1 or 2*
* For ADS systems using HFC-227ea, 2 drivers must be used with each 675 and 1010 lb. (243 or 368 L) agent cylinder. For ADS systems using Fluoro-K Fire Suppression Clean Agent or 3M Novec 1230 Fire Protection Fluid, use the flow calculation software to determine the number of drivers needed for each 600 or 900 lb. (243 or 368 L) agent cylinder.					
Nitrogen Driver Supervisory Pressure Switches					
85-111540-001	Supervisory Pressure Switch				
85-111540-100	ATEX Supervisory Pressure Switch				

EXPORT INFORMATION (USA)

Jurisdiction: EAR
Classification: EAR99

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