

## 108 cu. inch Nitrogen Pilot Cylinder and Bracket

### FEATURES

- **Safety:** *Safety Burst Disc Assembly*
- *Actuation Port Safety Cap*
- *RoHS Compliant*
- *Pressure Gauge*
- *Quick Disconnect Bracket*
- *See Compatibility Table for Corresponding Manual P/N*

### DESCRIPTION

The Kidde Fire Suppression Systems 108 cu. in. capacity Nitrogen Pilot Cylinder is factory charged to 1800 PSIG (124 bar) with dry nitrogen and is designed for use as a pilot cylinder. The cylinder valve is a 5/8-inch bore design and is fitted with a contents pressure gauge. The valve is designed to accept the full range of Kidde Fire Systems control heads (excluding the stackable electric control head, P/N 81-486500-010). The valve contains a schrader port for installation of pressure supervisory switch P/N 85-111540-001 or 85-111540-100 (ATEX).

### OPERATION

Either electrical, pneumatic, pressure, or mechanical inputs may operate the 108 cu. in. cylinder. The suite of Kidde Fire Systems control heads can provide these inputs, again excluding control head part number 81-486500-010.

### INSTALLATION



**WARNING**

**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.**

The 108 cu. in. cylinder is fitted to a wall bracket attached to an appropriate mounting location. Rotate the cylinder to the correct orientation before completely tightening the bracket. Upon securing the cylinder, attach the appropriate control head style. Ensure the cylinder pressure gauge remains sufficiently visible to facilitate periodic inspection requirements.

Remove the supplied pipe plug and attach a suitable 1/8-in. NPT fitting to the cylinder outlet port. Kidde Fire Systems provides 1/8-in. x 5/16-in. flare connections (see accessories table). Either tubing or 1/4-in. flexible actuation hoses may be attached to these connections. Refer to the applicable Kidde Fire Systems design manual for allowable tubing material, diameters and lengths. Fittings should be rated for a maximum working pressure of no less than 3000 PSI (207 bar). Refer to the Electrical Contact table for additional information.



### 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**

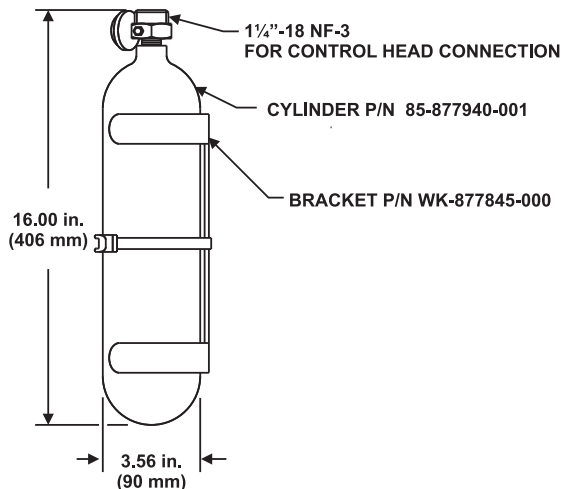
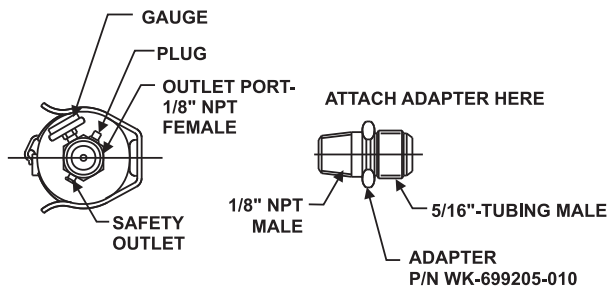


Figure 1. 108 cu. in. Nitrogen Pilot Cylinder

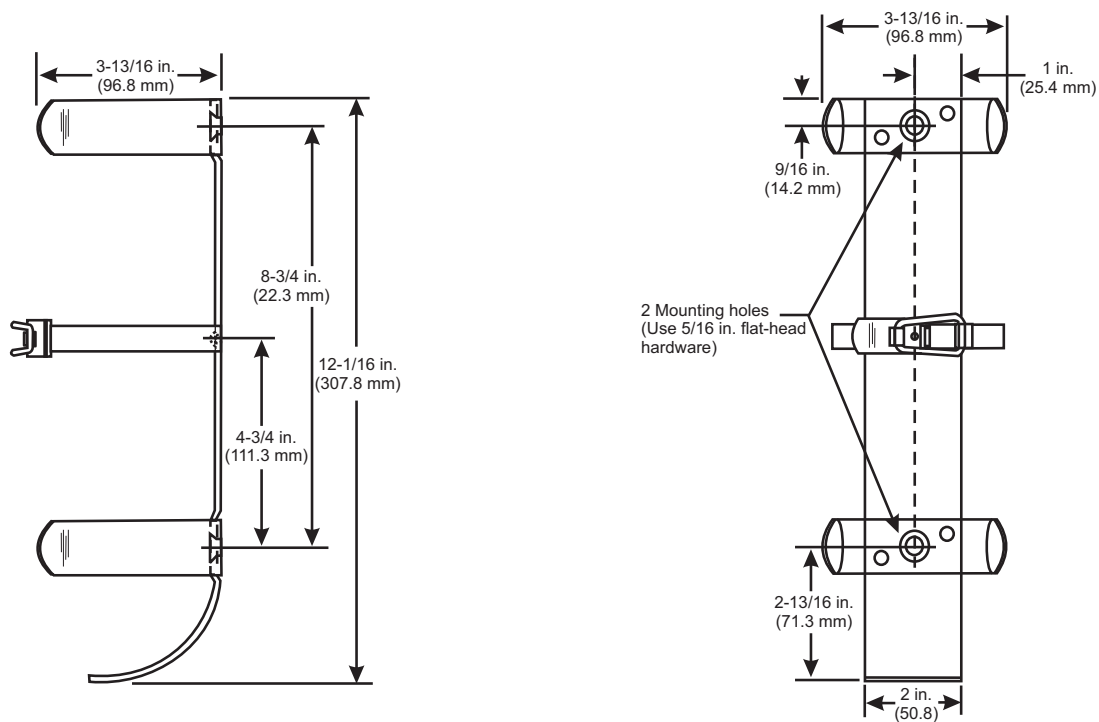


Figure 2. 108 cu. in. Nitrogen Pilot Cylinder Bracket

**SPECIFICATIONS**

**Charge Pressure:** 1800 PSIG @ 70°F  
(124 bar @ 21°C)

**Contents:** Nitrogen (A-A-59155 Grade A, Type 1)

**Safety Relief:** Bust Disc 2650-3000 PSI (183-207 BAR) at 70F (20C)

**Cylinder Volume:** 108 cu. in. (1.77 L)

**Empty Weight:** 5.57 lb. (2.53 kg)

**Charged Weight:** 6.80 lb. (3.10 kg)

**Bracket Weight:** 1.50 lb. (0.68 kg)

**Cylinder Type:** Seamless, DOT3AA-1800

**Cylinder Finish:** Black, Painted

**Materials:**

- Valve–** Forged Brass
- Siphon Tube–** None Fitted
- Cylinder–** Chrome, Moly Steel
- Bracket–** Steel, Stainless Steel

**Operating Temperature Range:** -40°F to 130°F  
(-40°C to 54°C)

**Height (including protection cap):** 16 in. (406 mm)

**Transport Information:** Class 2.2, I.D.#UN1066

**ORDERING INFORMATION**

Part Number	Description
85-877940-001	Factory Filled 108 cu. in. Nitrogen Pilot Cylinder

**ACCESSORIES**

Part Number	Description	Comments
WK-877845-000	Mounting Bracket, Nitrogen Pilot Cylinder	Steel Material
85-111540-001	Supervisory Pressure Switch (Form C 1540-psig falling) for Nitrogen Cylinders with Clean Agent Systems	See Data Sheet K-85-5514
85-111540-100	ATEX Supervisory Pressure Switch (Form C 1540-psig falling) for Nitrogen Cylinders with Clean Agent Systems	See Data Sheet K-85-5514
81-111350-001	Supervisory Pressure Switch (Form C 1350-psig falling) for Nitrogen Cylinders with Carbon Dioxide Systems	See Data Sheet K-81-5514
81-111350-100	ATEX Supervisory Pressure Switch (Form C 1350-psig falling) for Nitrogen Cylinders with Carbon Dioxide Systems	See Data Sheet K-81-5515
WK-699205-010	Male Connector, 5/6-in. Flare x 1/8-in. NPT	See Data Sheet K-85-5040
WK-699205-030	Male Elbow, 5/16-in. Flare x 1/8-in. NPT	See Data Sheet K-85-5040
WK-699205-050	Male Branch Tee, 5/16-in. Flare x 1/8-in. NPT	See Data Sheet K-85-5040
WK-264987-000	Actuation Hose, 22-in.	See Data Sheet K-85-5070
WK-264986-000	Actuation Hose, 30-in.	See Data Sheet K-85-5070
WK-264985-000	Check Valve, 1/4-in.	See Data Sheet K-85-0520
WK-933537-000	Adapter, Recharging	See Data Sheet K-85-0528

**COMPATIBILITY**

<b>Series</b>	<b>DIOM P/N</b>	<b>Approvals</b>
Kidde Fire Systems Natura™ Inert Gas System	06-237619-001	UL, FM
Kidde Fire Systems ECS-500™ System	06-237585-001	UL, ULC, FM
Kidde Fire Systems ECS-500™ Marine System	06-237589-001	UL, ULC, USCG
Kidde Fire Systems ADS™ for use with Fluoroketone Fire Suppression Agents	06-237256-001	UL, ULC, FM
Kidde Fire Systems ADS™ Marine for use with Fluoroketone Fire Suppression Agents	06-237257-001	UL, ULC, USCG
Kidde Fire Systems ADS™ with HFC-227ea Agent	06-236068-001	UL, ULC, FM
Kidde Fire Systems ADS™ Marine with HFC-227ea Agent	06-236595-001	UL, ULC, USCG
Kidde Fire Systems ECS™ 360 for use with Fluoroketone Fire Suppression Agents	06-236553-001	UL, ULC, FM
Kidde Fire Systems ECS™ 360 Marine for use with Fluoroketone Fire Suppression Agents	06-236559-001	UL, ULC, USCG
Kidde Fire Systems ECS™ 360 with HFC-227ea Agent	06-236115-001	UL, ULC, FM
Kidde Fire Systems Modular ECS™ 360 with HFC-227ea Agent	06-236116-001	UL, ULC, FM
Kidde Fire Systems ECS™ 360 Marine with HFC-227ea Agent	06-236225-001	UL, USCG
Kidde Fire Systems FE-13™ Engineered Suppression System	06-236169-002	UL
Kidde Fire Systems High Pressure CO <sub>2</sub> System	81-CO2MAN-001	UL, ULC, FM
Kidde Fire Systems High Pressure CO <sub>2</sub> Marine System	220610	UL, USCG

**EXPORT INFORMATION (USA)**

Jurisdiction: EAR  
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