



CATCO

CATALYTIC HEATER COMPANY

www.catcoUSA.com • P. O. Box 188 • Terrell, Texas 75160

Heater Enclosure Packages for Motor Valves / Control Valves

Valves used in controlling the flow of gas are subject to potential freezing and hydrate formation problems that occur due to the combined effect of pressure drop, gas quality, and ambient temperatures. Typically, a CATCO enclosure “clamshells” around the valve

body. The enclosure serves to protect the heaters from rain and snow while placing the heaters so that they focus the radiant energy onto the valve body.

ADVANTAGES OF CATALYTIC HEATERS

Efficiency

Radiant energy can be directed onto a specific target and is not wasted on heating the surrounding air. CATCO heaters convert easily accessible fuel directly into heat energy.

Safety

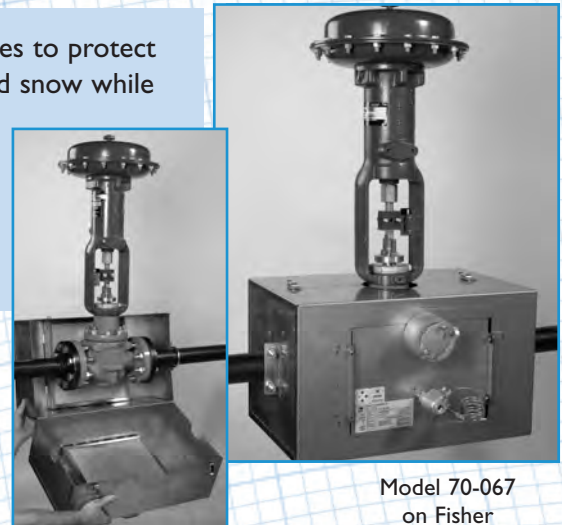
CATCO heaters are ideally suited for use in areas where a flame or conventional high temperature electrical heater is not safe. The face temperature of the heater is always well below the temperature needed to ignite natural gas or LPG in the open atmosphere (about 1300°F). CATCO heaters are available with certification for hazardous locations.

Simplicity

CATCO heaters are fundamentally simple with basically no moving parts and nothing requiring routine maintenance. As long as the fuel supply is clean and dry and the heater face is protected from contamination and damage, the heater will continue to function.

Economy

CATCO heaters are economical to install and operate. Installation is usually a matter of placing the enclosure over the valve and providing a fuel supply. There are no wear parts to replace, chemicals to supply, or extensive electrical installation required.



Model 70-067
on Fisher

HOW THEY WORK:

Using a catalytic chemical reaction, CATCO heaters oxidize natural gas or propane. This flameless reaction takes place at a relatively low temperature, resulting in a surface temperature always below 900°F. The reaction produces heat, emitted in the form of radiant infrared energy. The byproducts are carbon dioxide and water vapor.

The catalytic reaction is typically started using electricity to energize a heating element that pre-heats the catalyst bed to at least 250°F. Electrical power can come from a battery or line source and is needed for starting only.

Once the catalyst bed is pre-heated, fuel gas flows into the heater, catalytic reaction begins and stabilizes at a temperature below 900°F. Electrical power is removed and the catalytic reaction continues as long as the heater has a source of clean, dry, fuel gas and adequate combustion air.

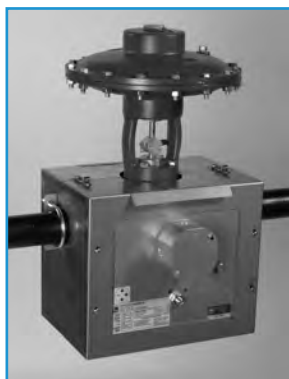


Model 70-035 on
Kimray



Model 70-035 on
Norriseal

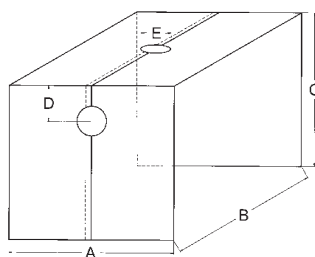
Available Models



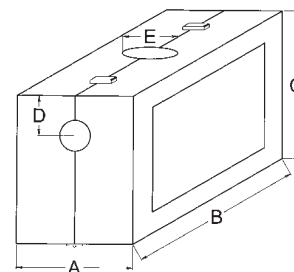
Model 70-035
on Kimray



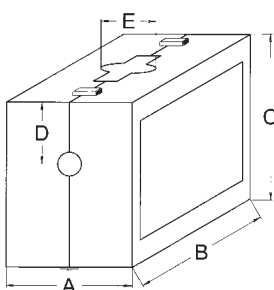
Model 70-035
on Norriseal



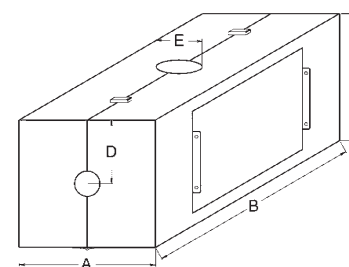
Model 70-010



Model 70-035



Model 70-050



Model 70-067

MODEL NO.	APPLICATION	CATALYTIC HEATER		DIMENSIONS (INCHES)				
		HEATER SIZE	BTU	A	B	C	D	E
70-010	Generic	1212	6000 or 12,000	12.50	12.50	13.00	3.00	3.00
70-035	2" Kimray Norriseal, others	1012	5000 or 10,000	9.50	14.00	12.00	3.25	4.50
70-050	1" Kimray Fisher D Body, others	88	2667 or 5334	8.00	8.62	10.37	4.00	3.50
70-067	Various valves	1212	6000 or 12,000	13.50	21.00	12.50	6.25	4.50

DESIGN CONSIDERATIONS AND FEATURES

The enclosure mounts onto the valve so that radiant energy is directed at the point most likely to freeze. Heat energy will be drawn to the coldest point.

The enclosure design allows for the top works or actuator to extend outside of the heated area.

When conditions require, the enclosure can be made to provide for the mounting a heater on one side or both sides of the enclosure, allowing the amount of heat provided to be matched to the severity of the conditions. A catalytic heater can be added or removed in the field with a Phillips screwdriver.

When practical, enclosures are hinged and secured with draw latches, making installation a snap.

Don't See What You Need Here?

Catalytic Heater Company has available hundreds of enclosure designs to fit many different equipment applications. Custom made packages are available for special conditions. Contact your representative or the factory for assistance.

For more detailed information about the catalytic heaters used in these heater enclosure packages please see the data sheet *Catalytic Heaters*. For information regarding accessories please see the data sheet *Parts and Accessories*.