



**cavagna group**

Wherever gas is used, we are there

# **DSS7 Dual Second Stage Pressure Regulators**

**Kosan**<sup>+</sup><sub>LINE</sub>



FOR USA & CANADA



# Dual Second Stage Regulators

## Product Description

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The DSS7 series regulators are direct action, dual second stage pressure regulators, normally used for domestic or small commercial applications. Installations can be individual or in gas grids (ie LPG Community Systems) and can be directly assembled to a meter configuration, for LP-gas, or other non-corrosive preliminarily treated stable gas.

## Key Features

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This device will slam shut, shutting off the gas supply when the pressure falls below (UPSO) or above (OPSO) the set point (shown in Safety Device section).

This safety is activated when the outlet pressure decreases / increases due to:

- Low regulator outlet pressure (out of gas situations)
- Blockage in the regulator valve seat (overpressure)

The device will shut down preventing gas to flow either downstream or through the vent when activated. It can only be manually reset by a qualified technician after the condition causing the device to activate is resolved.

It will not allow large volumes of gas to be released as traditional relief valves do primarily avoiding a release until the source container can be shut off.

## Material

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**Body And Cover:** Die-Cast Aluminum

**Diaphragm:** Nitrile synthetic rubber NBR

**Springs:** Stainless Steel

**Seats:** Brass or Aluminum



**11" W.C. VERSION**

# Dual Second Stage Regulators

## Technical Data

Type (Part number)	Capacity in BTU/hr propane	Inlet connection, inches	Maximum inlet pressure	Outlet connection, inches	Outlet pressure range	Outlet pressure setting
<b>DSS7 - M 0090</b> <b>(07.R.235.0090)</b>	1,800,000	3/4" NPT	10 psi	3/4"NPT	9" - 13" w.c.	11" w.c.
<b>DSS7 - N 0056</b> <b>(07.R.135.0056)</b>				3/4"NPT 90°		
<b>DSS7 - M 0073</b> <b>(07.R.235.0073)</b>	1"NPT					
<b>DSS7 - N 0057</b> <b>(07.R.135.0057)</b>	1"NPT 90°					
<b>DSS7 - M 0091</b> <b>(07.R.235.0091)</b>	2,500,000			3/4"NPT	1 to 2.2 PSIG	2 PSIG
<b>DSS7 - N 0060</b> <b>(07.R.135.0060)</b>	2,300,000			3/4"NPT 90°		

<sup>1</sup> referred to Propane with relative density=0.51  
 DSS7 - M (in line version)  
 DSS7 - N (angle version)  
 Working Temperature: -40°F ÷ 140°F (-40°C ÷ 60°C)  
 Weight: 3.3 Lbs (1.5Kg)



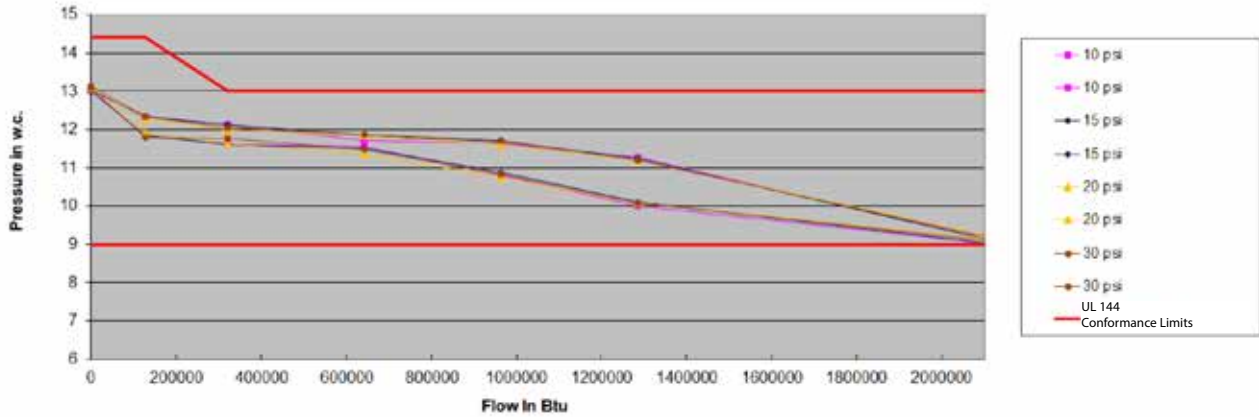
**2 PSI VERSION**



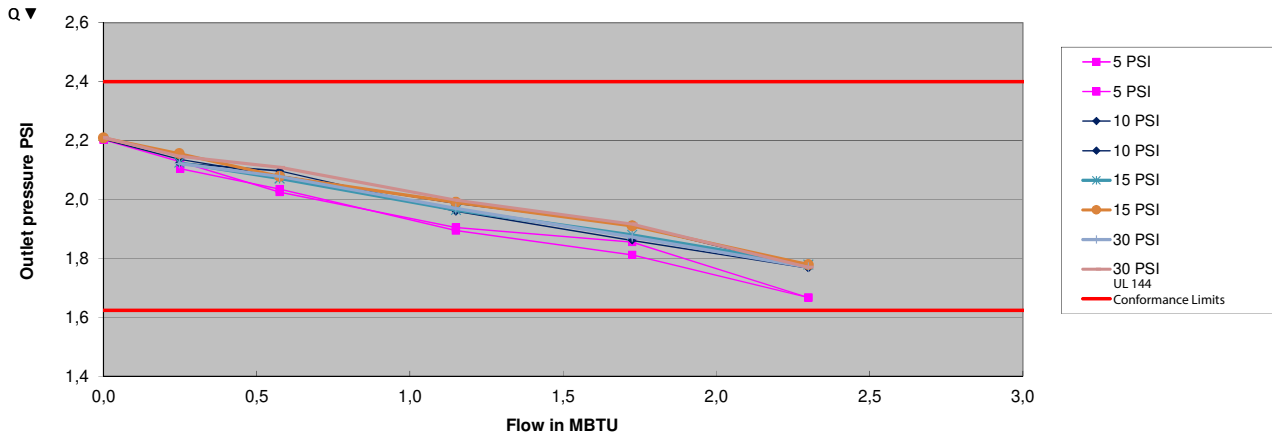
# Dual Second Stage Regulators

## Performance curves

DSS7 - DUAL SECOND STAGE PRESSURE REGULATORS



Typical Capacity Curves for regulators with Outlet Pressure=11" w.c. and RG class up to 5% Values refer to LP-Gas, with relative density (d)=0.51



Typical Capacity Curves for regulators with Outlet Pressure=2 PSI and RG class up to 5% Values refer to LP-Gas, with relative density (d)=0.51

# Dual Second Stage Regulators

## Safety Devices

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### **OVERPRESSURE SHUT-OFF (OPSO)**

When the outlet pressure exceeds the set point (1.5 PSI for 11" version or 4.5 PSI for 2 PSI version), the downstream flow of gas is shut off.

The regulator can only be reset manually.



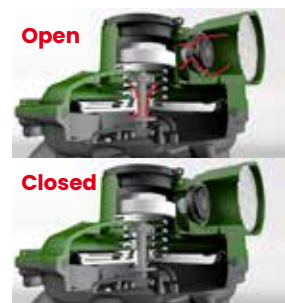
### **UNDERPRESSURE SHUT-OFF (UPS0)**

When the outlet pressure decreases below the set point (3-4" w.c. for 11" version or 10" w.c. for 2 PSI version) the downstream flow of gas is shut off. The regulator can only be reset manually.



### **RELIEF VALVE**

The relief valve will release a calibrated amount of gas through the vent into the air, when the pressure exceeds the set point (1 PSI for 11" version and 3.5 PSI for 2 PSI version). When the pressure decreases the valve resets protecting the regulator from brief pressure changes.

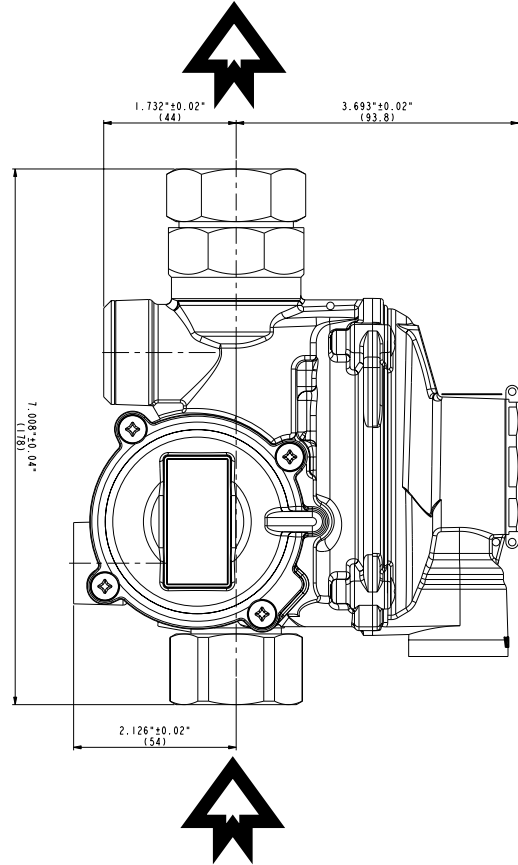
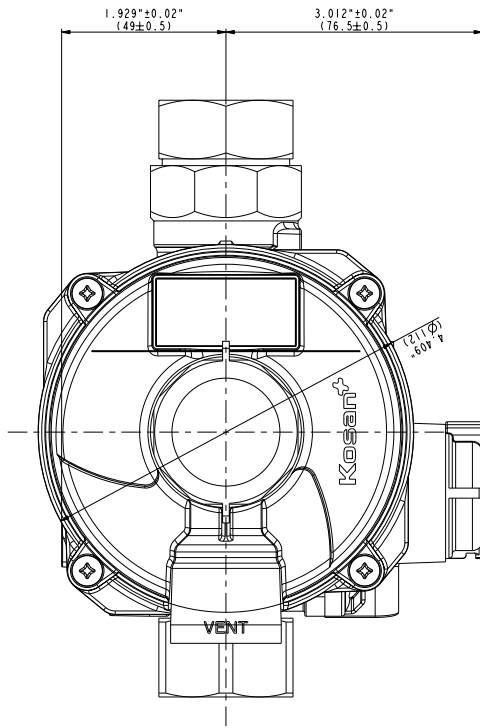


**THE REGULATORS SHUT-OFF DEVICE CAN ONLY BE RESET MANUALLY.**

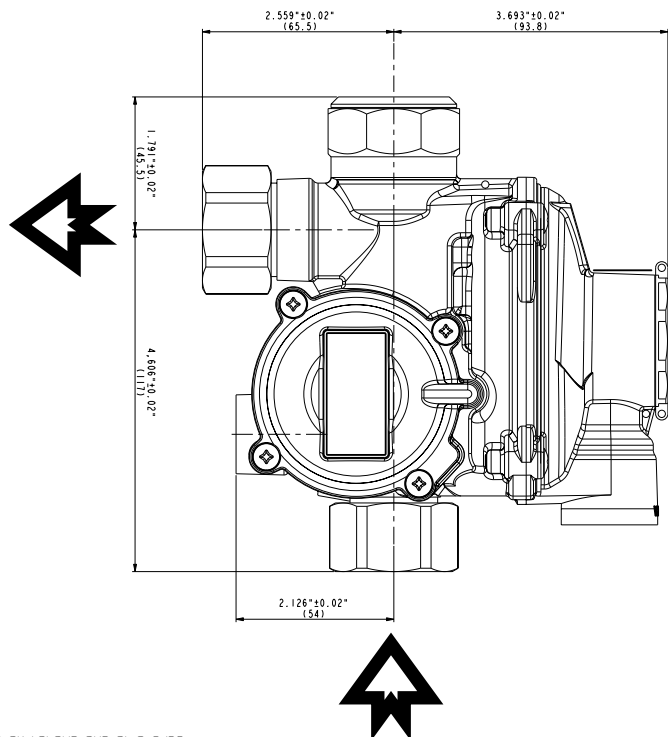
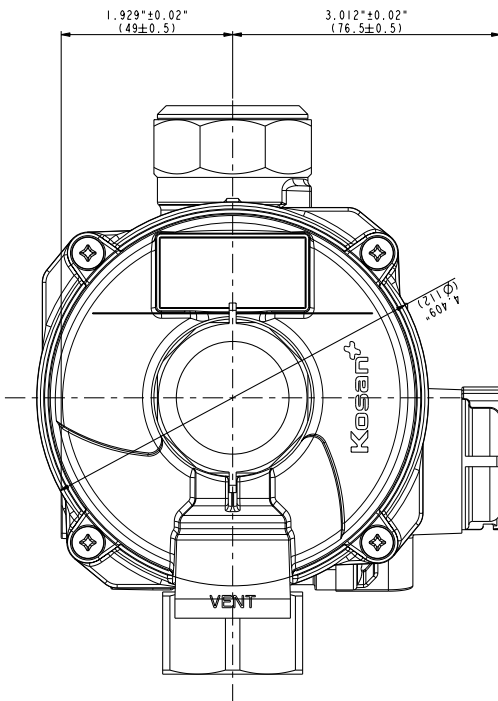


# Dual Second Stage Regulators

## TYPE M - 3/4" FNPT INLET & OUTLET CONNECTIONS



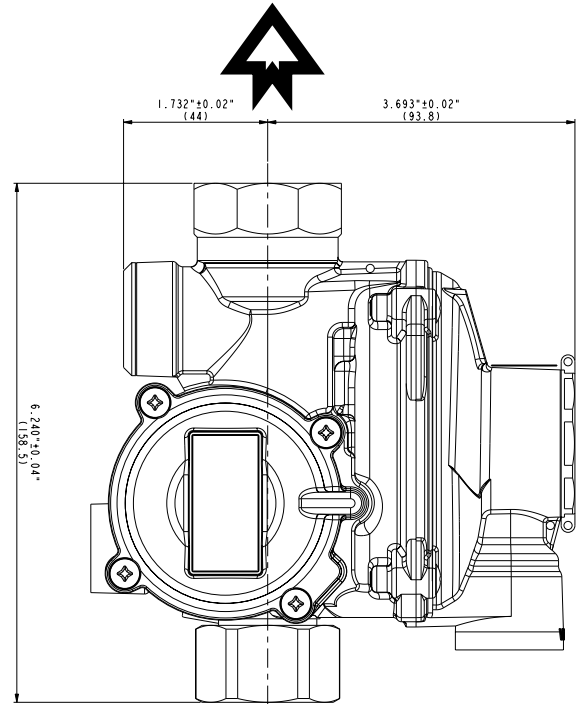
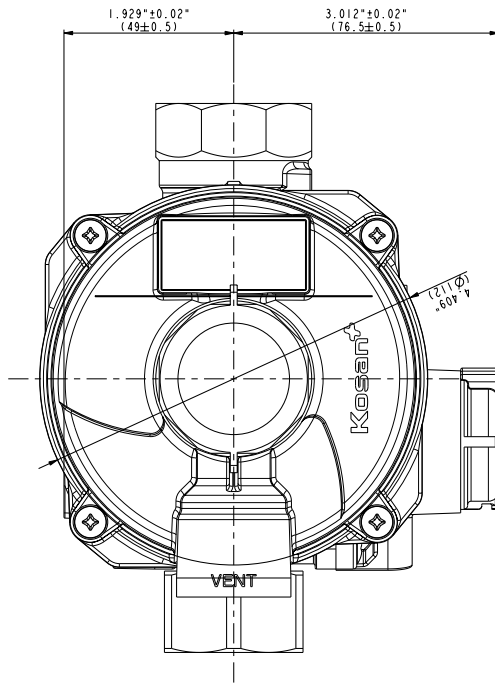
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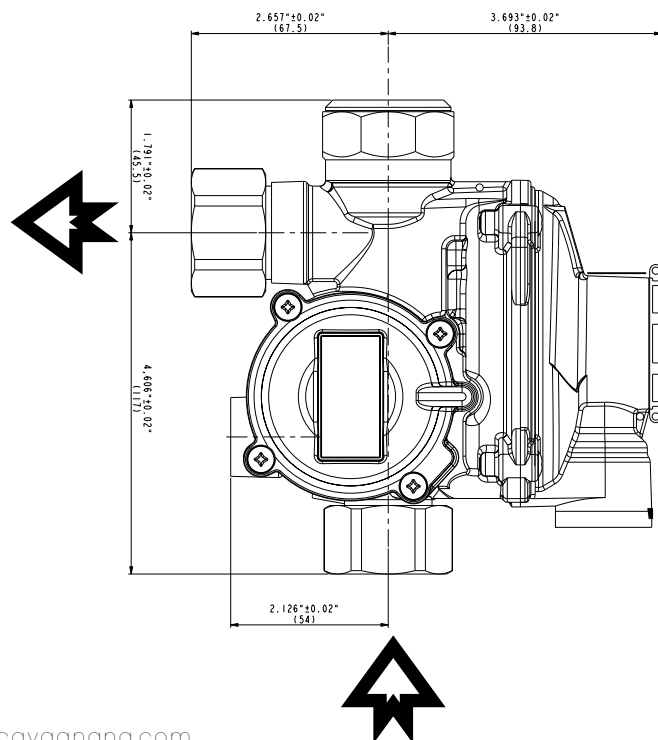
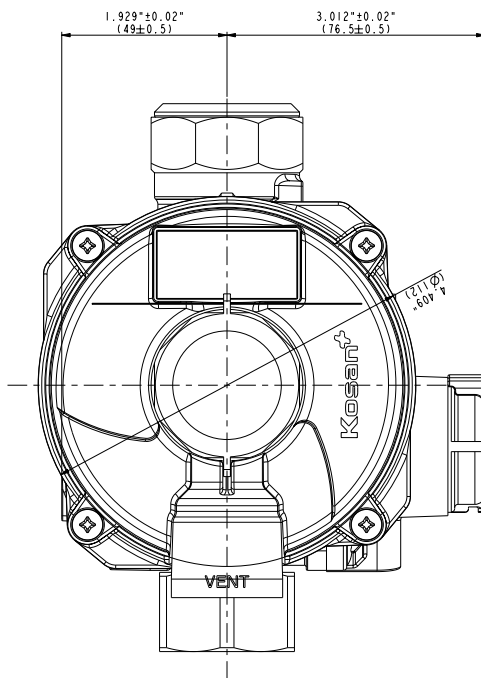
DSS7 - DUAL SECOND STAGE PRESSURE REGULATORS

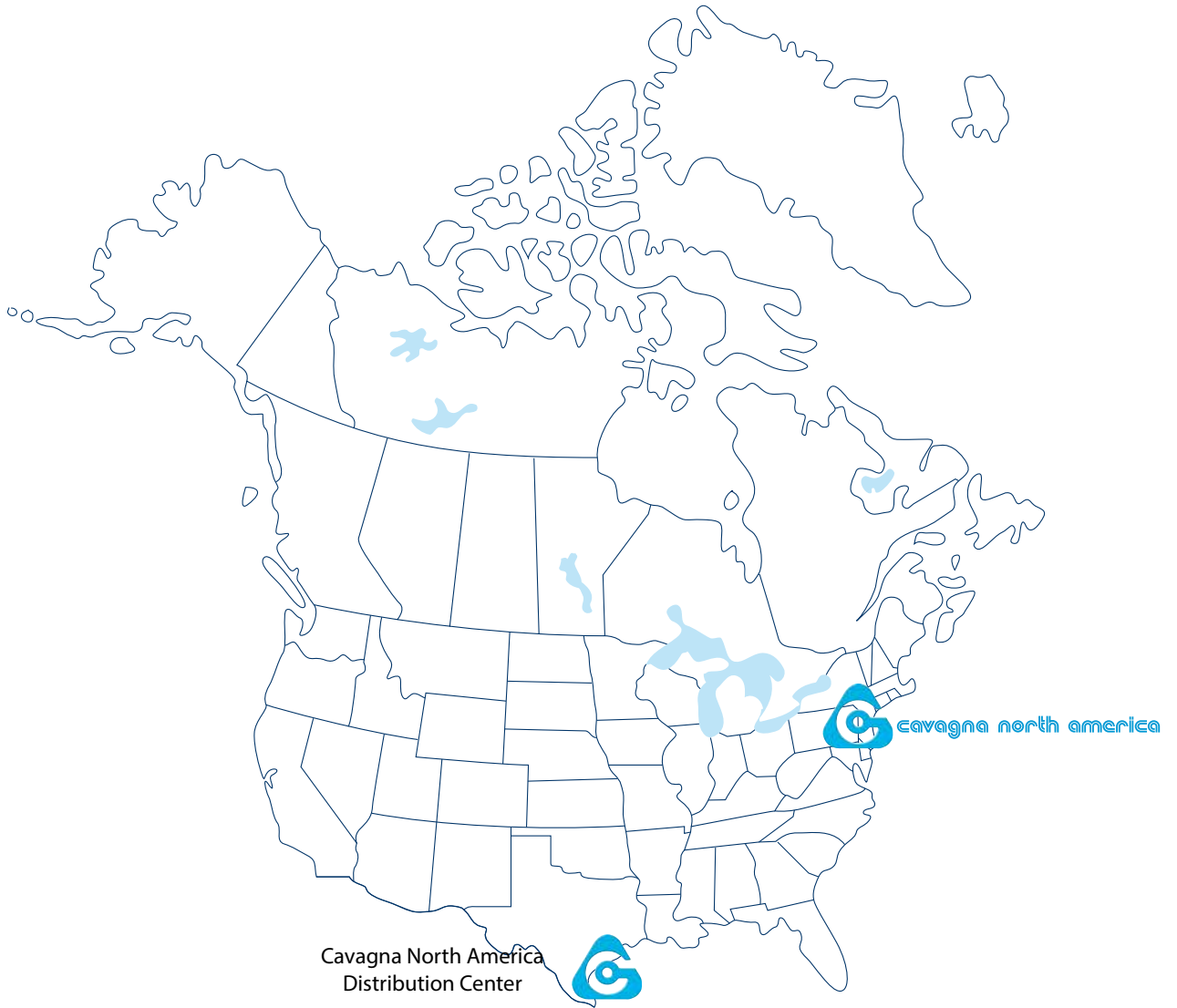
# Dual Second Stage Regulators

## TYPE M - 3/4" FNPT INLET - 1" FNPT OUTLET CONNECTIONS



## TYPE N - 3/4" FNPT INLET - 1" FNPT OUTLET CONNECTIONS





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