

# Multi Sensor Relief Valve (MSRV)



The MSRV is a rapid acting relief valve without the limitations of existing safety valves, allowing a greater flexibility in safety system design. In an over-pressure situation the MSRV will respond through utilization of its safety logic and protect the whole system. Its ball valve design is hydraulically actuated by well pressure from primary sensor points. These points constantly monitor the process pressure, and when it exceeds a pre-determined value, the rupture disc inside the sensor point

ruptures and the respective impulse line is energized thus opening the valve. Once actuated, the MSRV will remain open until pressure is applied to the respective closure.

The MSRV is typically installed between the choke manifold and the heater. The purpose is to protect the heater tube bundle from over pressure if the upstream choke cuts out due to sand erosion etc.

The MSRV has the following advantages over a conventional relief valve.

**High relief capacity**

**Insensitive to system back pressure**

**Positive acting with no simmering or chattering**

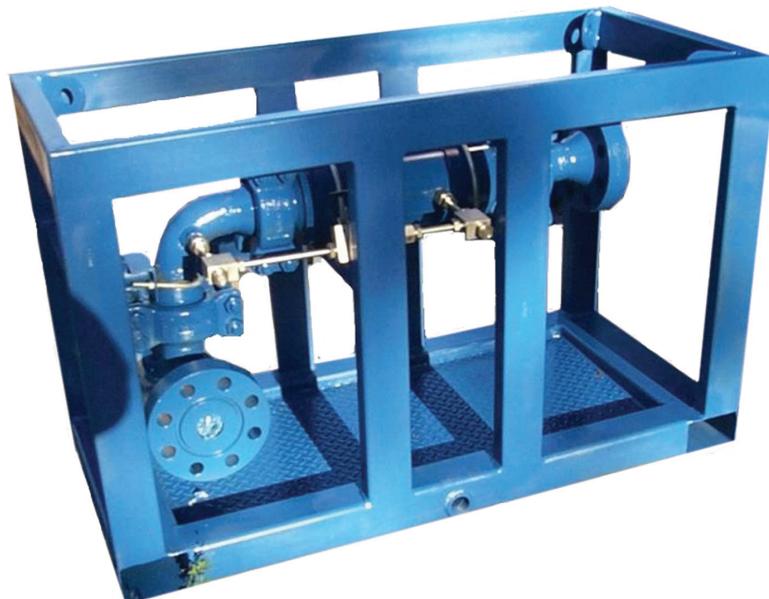
**Accurate set point pressure**

**Extreme high pressure integrity**

**Four impulse port multi sensor facility**

**Multi operable capability**

**ESD control logic**



**Expro Multi Sensor Relief Valve**

Service	Max. Working Pressure psi	Temperature Rating °F	Effective Flow Area in²	Outer & Internal Connections ins	Inlet & Outlet Connections	Dimensions & Weight ins	Design Code
Sour, CO <sub>2</sub>	10,000	-25° - 300°	Orifice: 3.14	O.D: 7.7 Internal Ball: 2.0	Both inlet & outlet to required specification	Length: 24.0" Weight: 220	SI 289, API 6A, NACE MR-01-75