9280

BARRIER GAS REGULATOR

Technical Specification

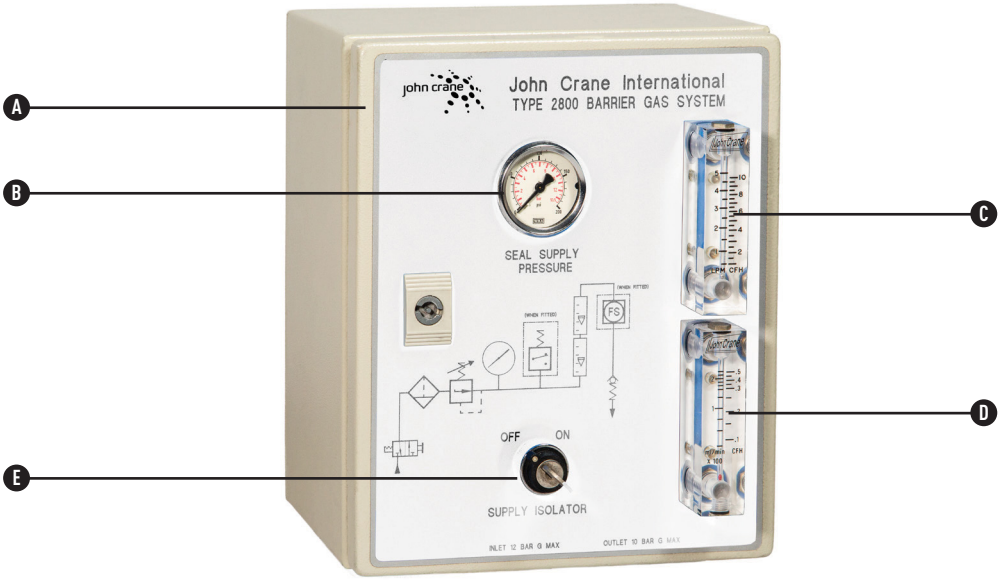
A – Powder coated steel enclosure

B – Pressure gauge

C – High flow indicator

D – Low flow indicator

E – Key operated gas isolation valve



Product description

The system regulates and monitors the gas supply to Type 2800 dry running seals. Clean, dry, nitrogen or air is supplied to the system from an external source. The gas passes through a key operated isolating valve and coalescing filter to the pressure regulator. The regulator sets and maintains the correct pressure required by the seals and is normally set 1.5 to 2 bar (20 to 30 psi) above the maximum process pressure acting on the seal. A pressure gauge and flow indicators enable the operator to set and monitor the barrier gas supply. The lower flow meter indicates normal gas flow and the upper flow meter indicates elevated consumption and the possible need for seal maintenance. Pressure and flow alarm switch options are also available.

Performance capabilities

Supply Gas: Dry clean nitrogen or air

Maximum Inlet Pressure: 12 barg (175 psig)

Maximum Outlet Pressure: 10 barg at 38°C (150 psig at 100°F)
7 barg at 50°C (100 psig at 120°F

Temperature:

Footprint: L x W x H: 155 mm x 250 mm x 300 mm (6.1" x 9.8" x 11.8")

Design features

- Compact tamper-proof unit.
- Powder coated steel Enclosure.
- Adjustable operating pressure.
- Range of optional accessories.
- Lockable isolating valve.
- Twin Flow meters.

Materials of construction and component details

Seal components	Materials / description
Isolation valve	Key operated gas supply isolation/filter bowl drain valve in brass
Filter	Semi automatic coalescing filter 5 micron rated, aluminium body/polycarbonate bowl
Regulating valve	Pressure regulator 0 to 10 bar with pushlock adjuster, aluminium body.
Pressure gauge	50 mm dia. gauge, 0-14 bar (0-200psi)scale, 316 SS internals.
Flow meter (low)	Rotameter type 25 to 250 ml/min scale, acrylic body
Flow meter (high)	Rotameter type 0.5 to 5 l/min scale, acrylic body
Check valve	Soft seat non-return valves, 0.5 psi cracking pressure, 316 SS body/viton seat
Tube/fittings	Nylon 11 semi rigid tube rated 20 barg @ 45°C with compression fittings

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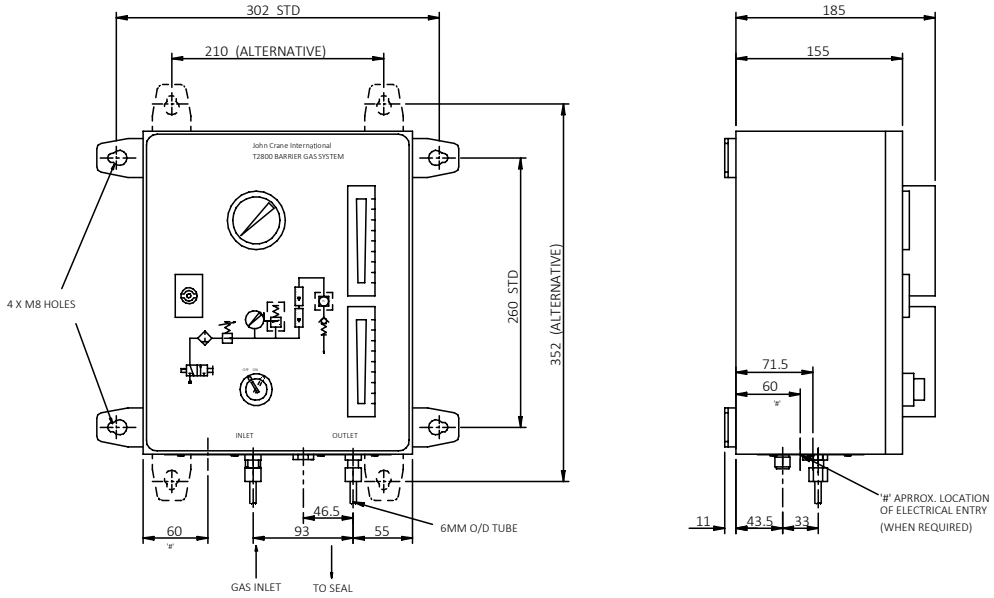
Nominal dimensions



Installation notes

Inlet / outlet connections are 6mm OD stainless steel compression couplings located on the base of the system.

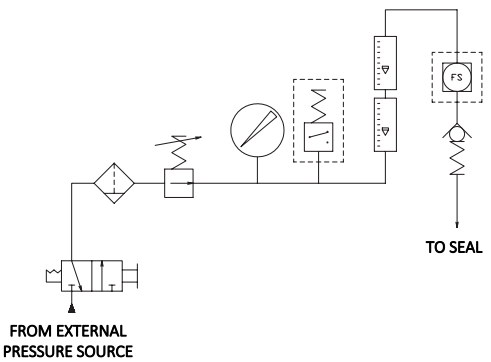
The supply isolation valve is key operated and is locked in either position when the key is removed. The valve is dual function when in the off position. Primarily it is used to isolate the gas supply during equipment maintenance and secondly it vents the pressure in the system, automatically draining any condensation from the filter bowl.

The mounting brackets are supplied as shown above but can easily be turned to the alternative shown if more suitable. Optional mounting stand uses standard mounting bracket locations.

On applications where gas consumption is too low to register on the flow meter the connection at the seal chamber should be slacked sufficient to confirm gas flow to the seals and then re-tightened.

Full Instructions are provided with each unit supplied.

9280 Typical arrangement



Materials of construction and component details

Component	Details
Low pressure switch	Epoxy coated aluminium body weatherproof IP65, SPDT switch 250VAC 4A or 28VDC 2A
High Flow Switch	Preset at 5000ml/min (300 inch3/min), stainless steel body and supplied with flying leads as standard
2:1 Pressure Booster	2:1 pressure intensifier complete with integral regulator max input 10 barg / 14.5 psig (not shown)
4:1 Pressure	4:1 pressure intensifier complete with integral regulator max input 5 barg / 72.5 psig (not shown)
Stainless Steel Enclosure	316 Stainless steel enclosure, Weatherproof option only, IP 54
Receiver Reservoir	10 ltr (2 gallon) Receiver Reservoir, MWP 20 barg at 100°C (290 psig at 212°F). PED compliant
Mounting stand	Vertical, carbon steel stand, complete with base for bolting down, std paint finish
Customized Labeling	Clients Logo added to customized labels
EEx'e' Junction Box	Permutation of Instruments wired to suitable sized Junction Box's. EEx'e', IP65 min

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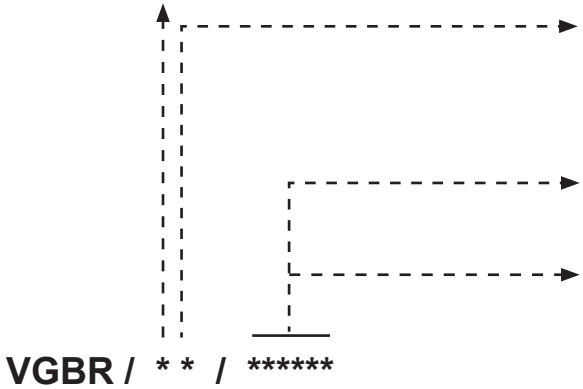
System coding

Electrical Protection	Code
Gas Box - Operating Pressure 0-10 barg	1
Gas Box - Operating Pressure 0-15 barg	2



Code	Electrical protection
W	Industrial Weatherproof for Non Hazardous areas
I	Intrinsic safety for Zone 182 Hazardous areas
E	Flameproof Zone 182 Hazardous areas
N	Not applicable no electrical equipment fitted

Code	Electrical protection
1	Low pressure alarm switch (LPS)
2	High flow alarm switch (HFS)
4	Mounting stand, painted carbon steel
8	2: 1 Supply pressure booster
16	High Flow Switch (HFS) (c/w EEx'e' Junction Box)*
32	4:1 Supply Pressure Booster
64	LPS + HFS (c/w double EEx'e' Junction Box)+
128	Stainless Steel Enclosure, IP88
256	10 litre Gas Receiver Reservoir. (rated 20 barg)
512	Coding not allocated
1024	Coding not allocated
2048	Customised Labeling - Allocated to PFAUDLER

OPTIONS:

Select options required and add code numbers together inserting the total.

Example: 9280/VBGR/ 1 E / 000005

This example calls up a 0-10 bar Buffer Gas Regulator system, complete with Flameproof low pressure switch (000001) & Mounting stand (000004)

* Not compatible with option 2

+ Not compatible with option 1, 2, or 16

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