SS691 Datasheet

SUBSEA HYDRAULIC PRESSURE REGULATOR

Gas | Liquid | Diaphragm | Piston | Self-Venting | Non-Venting | Max Inlet: 1,034 bar (15,000 psi) | Max Outlet: 690 bar (10,000 psi) | Cv 0.1

INTRODUCING THE SS691...

The SS691 is a piston-sensed low-flow subsea pressure regulator with ceramic seating for water-based hydraulic oil applications and systems. With the balanced main valve option it can provide stable control under varying inlet pressures and cope with higher flow rates.

Operating at depths of up to 3,000 metres (10,000ft), the SS691 uses either the external seawater pressure as a reference or works within a sealed chamber to remain completely unaffected by atmospheric conditions.

SPECIFICATION

Max. Rated Inlet Pressure	1,034 bar (15,000 psi)
Outlet Ranges	Up to 690 bar (10,000 psi)
Design Proof Pressure	150% max. working pressure
Seat Leakage	In accordance with ANSI/FCI 70-3
Weight	10.5kg (23.1lbs)

Note: Pressure regulator rating may be limited by connection type, Cv and/or seat material. Contact the office for specific pressure requirements.

STANDARD MATERIALS OF CONSTRUCTION

PART	MATERIALS
Body and Bonnet	ASTM A479 Duplex Stainless Steel (UNS S31803) *Approx. Temperatures: -50°C to 315°C*
Main Valve Pin	ASTM A479 Duplex Stainless Steel Ceramic (Zirconia) *Approx. Temperatures: 38°C to 800°C*
Seat	Ceramic (Zirconia)
Valve Spring	MP35N (UNS R30035) *Approx. Temperatures: -196°C to 450°C*
Piston	ASTM A479 Duplex Stainless Steel
Locking Cap	ASTM A479 Duplex Stainless Steel
O-Rings	NBR N70 (Nitrile Buna N) *Approx. Temperatures: -30°C to 120°C*
Loading Spring	MP35N (UNS R30035)

For the full list of material temperature ranges, please visit www.pressure-tech.com.

Note: Temperature details are provided as nominal values for guidance purposes only. No warranty is made, expressed or implied. Contact the office for specific temperature requirements.

FEATURES AND BENEFITS

1 SUITABLE FOR DEEPER WATERS

Can operate at depths of up to 3,000 metres (10,000ft).

2 ANTI-TAMPER LOCKING CAP

Cap prevents unwanted pressure adjustments to regulator.

3 MP35N VALVE SPRING

Very high strength with excellent corrosion resistance for sea water ref options.

4 OPTIONAL REMOTE OPERATION

Optional ROV handwheel or subsea multi-turn electric actuator.

PRESSURE TECH LTD
Unit 24, Graphite Way, Hadfield, Glossop, Derbyshire, UK, SK13 1QH
T +44 (0)1457 899 307
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PRESSURE TECH

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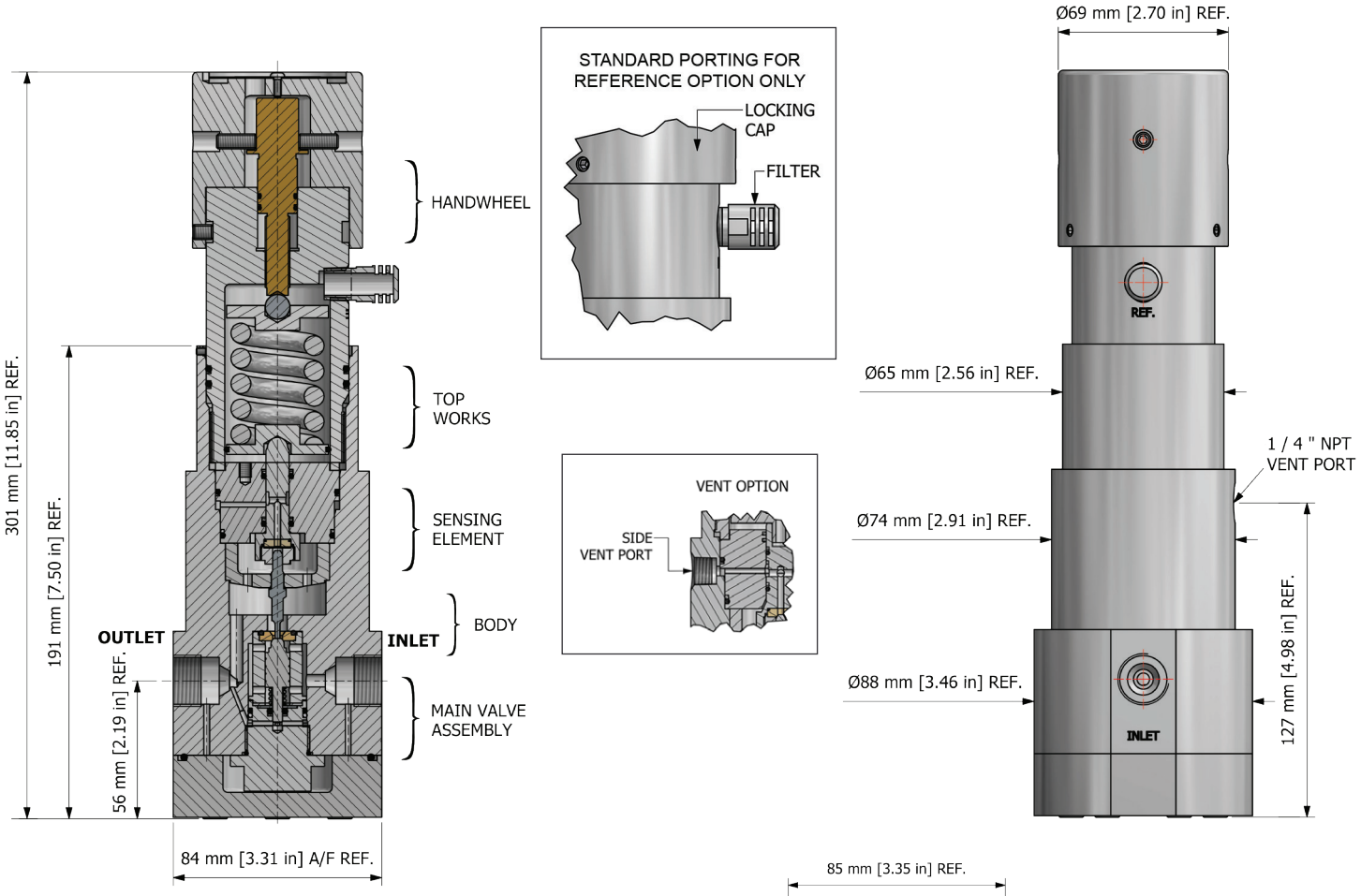
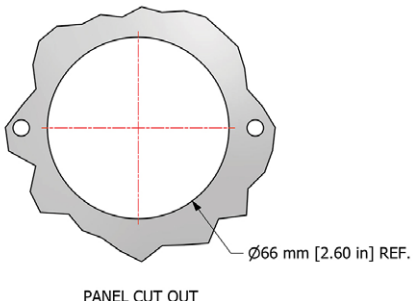
○	●	○	●	●	○			

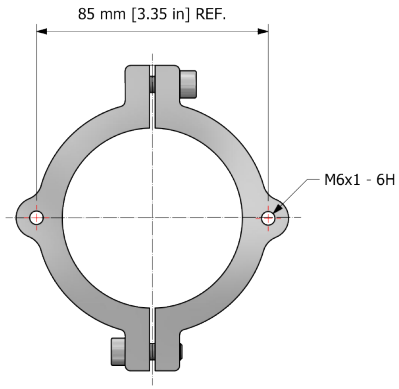
DRAWINGS AND INSTALLATION DIMENSIONS

Dimensions shown for 3/8” Medium Pressure option - please contact the office for additional connection options.





PANEL CUT OUT



PT-C-061-003 - RING
STAINLESS STEEL
PANEL MOUNT RING

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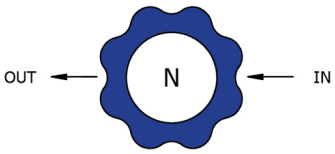
FLOW CURVE

Please contact the office for further information.

PORTING CONFIGURATIONS



Note:

Additional porting configurations are available - please contact the office for further information.

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ORDERING INFORMATION

To build a Pressure Tech part number, simply combine the characters identified below in sequence:

SS691 – 01 – D – 50SS – N – 03A – N – NV – XXX

REGULATOR MODEL/SERIES

SS691 – Low-Flow Subsea Pressure Regulator - Piston-Sensed

CV VALUE

05 – 0.05
01 – 0.1
03 – 0.3

BODY MATERIAL**

D – ASTM A479 Duplex Stainless Steel (UNS S31803)
D2 - ASTM A479 Super Duplex Stainless Steel (UNS S32750)
D3 - ASTM A479 Super Duplex Stainless Steel (UNS S32760)

CONTROL PRESSURE

50 – Up to 50 bar (725 psi)
100 – Up to 100 bar (1,450 psi)
200 – Up to 200 bar (2,900 psi)
414 – Up to 414 bar (6,000 psi)
690 – Up to 690 bar (10,000 psi)

LOADING MECHANISM

SR – Spring Loaded with Reference to External Sea Water Pressure
SS – Spring Loaded Sealed Chamber - No Reference to External

MODIFICATIONS*

Please contact the office for further information.

VENTING

NV – Non-Venting
SV – Self-Venting

PORTING CONFIGURATION

N - No gauge ports

INLET/OUTLET CONNECTION**

03A – 3/8” Medium Pressure

O-RING MATERIAL**

E – EPDM
N – NBR
V – FPM/FKM

OPTIONAL EXTRAS

	PART NUMBER	DESCRIPTION
Service Kit	SRK-SS691...	Various options available
Panel Mounting Ring	PT-C-061-003-RING	-

Note: Ancillary equipment also available

* Where applicable
** Other connections/materials may be available - please contact the office

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