

# SS414 Datasheet

SUBSEA HYDRAULIC PRESSURE REGULATOR



Gas  
  Liquid  
  Diaphragm  
  Piston  
  Self-Venting  
  Non-Venting  
 Max Inlet: 414 bar (6,000 psi)  
 Max Outlet: 250 bar (3,625 psi)  
 Cv 2.0



## INTRODUCING THE SS414...

The SS414 is a piston-sensed medium-flow subsea pressure regulator with ceramic seating for water-based hydraulic oil applications and systems, or PEEK™ for gas applications. With a **balanced main valve** as standard, it provides stable control under varying inlet pressures.

Operating at depths of up to 3,000m (10,000ft), the SS414 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	414 bar (6,000 psi)
Outlet Ranges	Up to 250 bar (3,625 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) Approx. Temperatures: 38°C to 800°C
	PEEK™ (450G) Approx. Temperatures: -50°C to 204°C
Valve Spring	ASTM A240 301 Stainless Steel (UNS S30100) Approx. Temperatures: -29°C to 370°C
Piston	ASTM A479 Duplex Stainless Steel
Locking Cap	ASTM A479 Duplex Stainless Steel
O-Ring	NBR N70 (Nitrile Buna N) Approx. Temperatures: -30°C to 120°C
Loading Spring	Elgiloy® (UNS R30003) Approx. Temperatures: -196°C to 450°C
	ASTM A240 301 Stainless Steel (UNS S30100) Approx. Temperatures: -29°C to 370°C

For the full list of material temperature ranges, please visit [www.pressure-tech.com](http://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 DEEP WATERS

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

### 2 ANTI-TAMPER LOCKING CAP

Cap prevents unwanted pressure adjustments to the regulator.

### 3 ELGILOY® SPRING

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

### 4 OPTIONAL ROV HANDWHEEL

Optional bucket handwheel design for ROV operation.

Product availability and specifications contained herein are subject to change without notice. Consult local distributor or factory for potential revisions and/or service related issues. Pressure Tech Ltd support with product selection recommendations only - it is the users responsibility to ensure the product is suitable for their specific application requirements.



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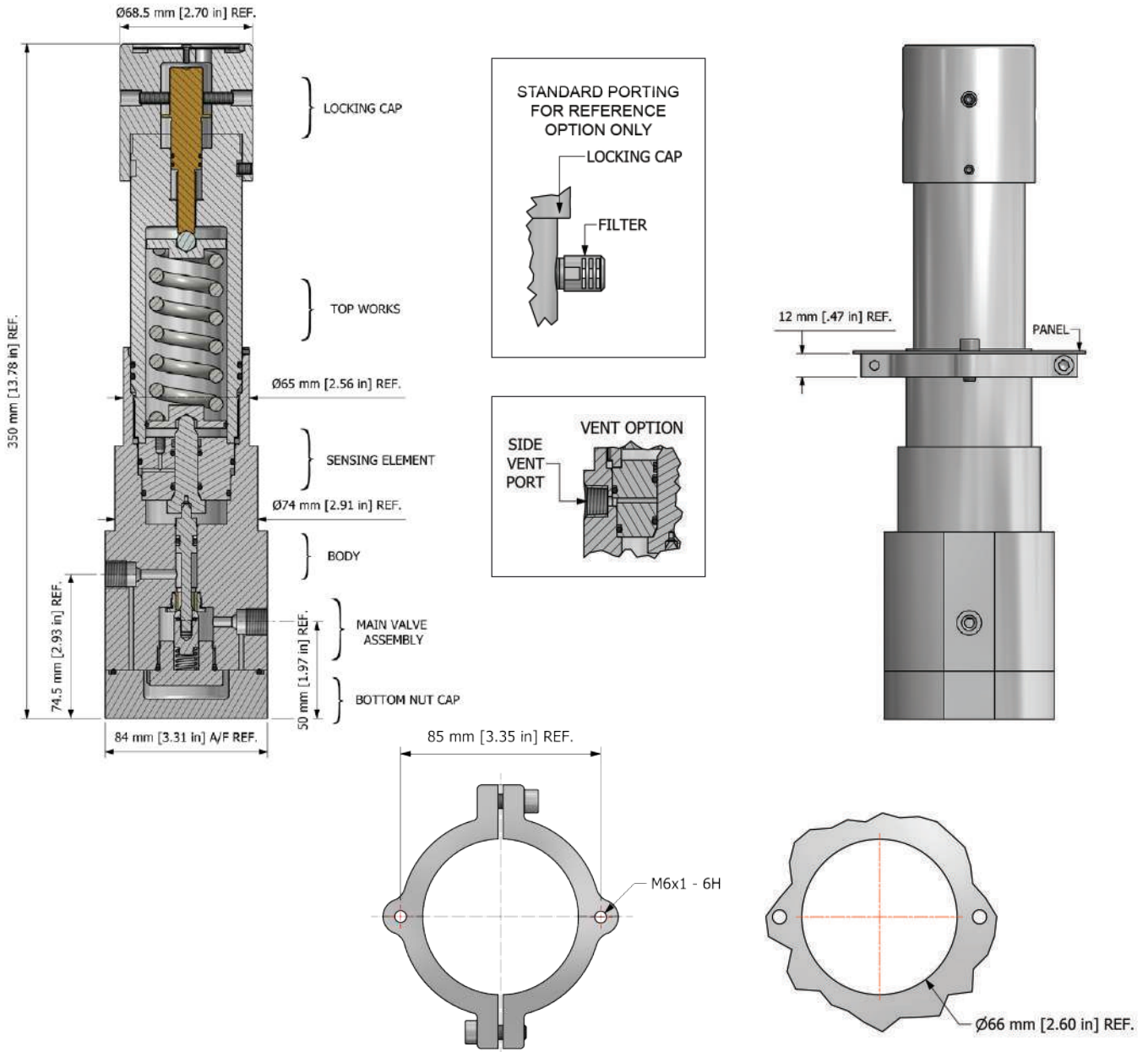
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## DRAWINGS AND INSTALLATION DIMENSIONS

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



**Note:**  
All gauge ports are 1/4" NPT as standard.

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

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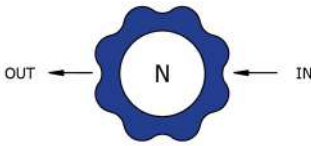


Gas  Liquid |  Diaphragm  Piston |  Self-Venting  Non-Venting | Max Inlet: 414 bar (6,000 psi) | Max Outlet: 250 bar (3,625 psi) | Cv 2.0

## 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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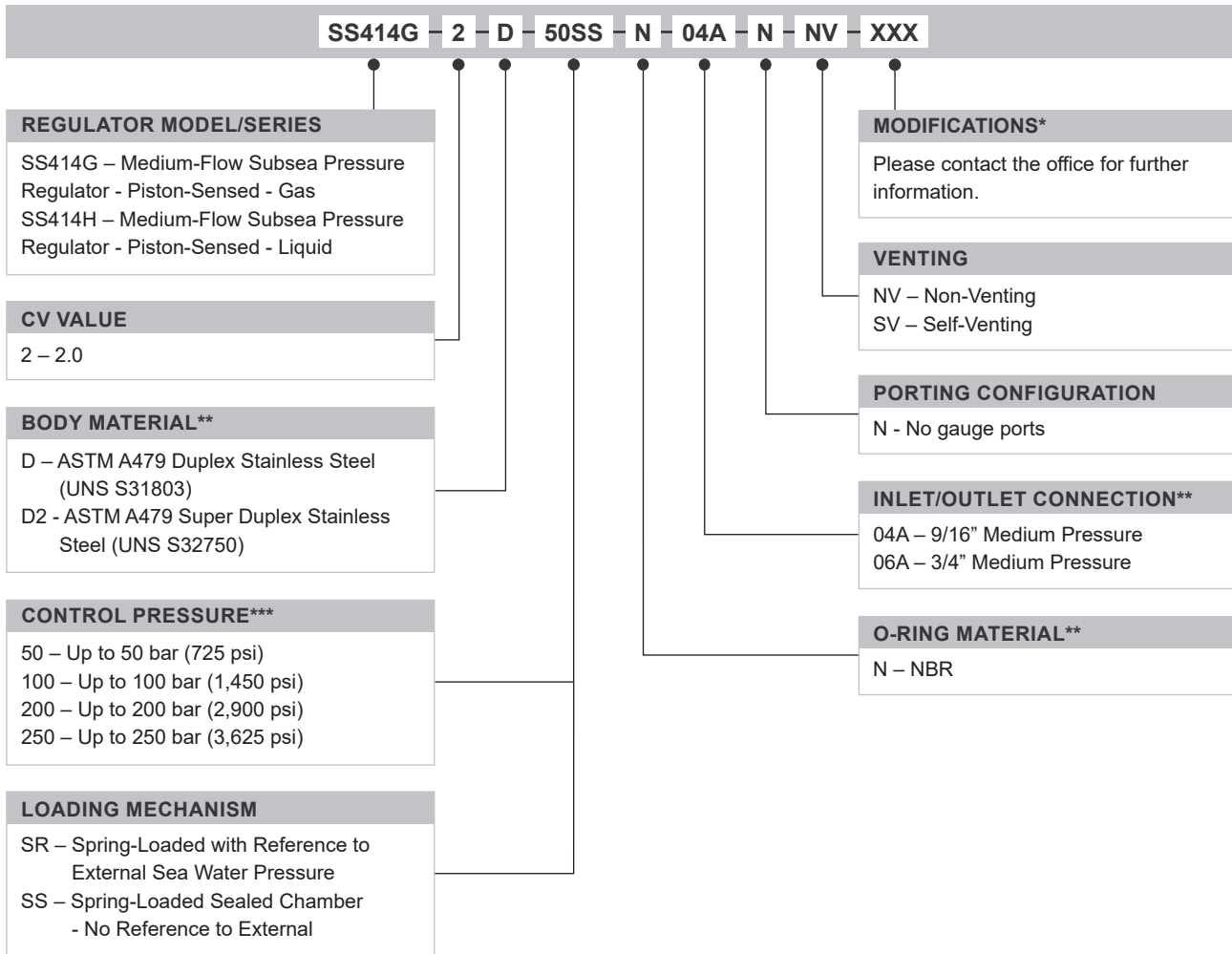
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### ORDERING INFORMATION

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



OPTIONAL EXTRAS		
	PART NUMBER	DESCRIPTION
Service Kit	SRK-SS414...	Various options available
Panel Mounting Ring	PT-C-061-003-RING	-

*Note:* Ancillary Equipment also available

**TRADEMARK:** Elgiloy® is a registered trademark of Elgiloy Specialty Metals

\* Where applicable

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

\*\*\* Minimum control pressure 100 bar (1,450 psi) for hydraulic option

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