

# LW-TS414 Datasheet

LIGHTWEIGHT TWO-STAGE PRESSURE REGULATOR



● Gas ● Liquid | ● Diaphragm ● Piston | ● Self-Venting ● Non-Venting | Max Inlet: 414 bar (6,000 psi) | Max Outlet: 1 bar (14.5 psi) | Cv 0.06



## INTRODUCING THE LW-TS414...

The LW-TS414 is a lightweight, two-stage piston-sensed regulator, providing stable pressure control under decaying inlet conditions.

The first stage of the regulator uses a PCTFE seat for up to 300 bar (4,350 psi) inlet pressure or a PEEK™ for up to 414 bar (6,000 psi) inlet pressure and is preset at the factory and locked to prevent alteration.

The second stage of the regulator, with a PCTFE seat as standard, can be adjusted by the user between various outlet pressures with the selected range.

## SPECIFICATION

Max. Rated Inlet Pressure	414 bar (6,000 psi)
Outlet Ranges	Up to 1 bar (14.5 psi)
Design Proof Pressure	150% max. working pressure

## STANDARD MATERIALS OF CONSTRUCTION

PART	MATERIALS
Body and Bonnet	Aluminium T6511 (UNS AW6082)
Main Valve Pin	ASTM A479 316/316L Stainless Steel (UNS S31600/S31603)
First-Stage Seat	PEEK™ (450G) PCTFE (Kel-F)
Second-Stage Seat	PCTFE (Kel-F)
Valve Spring	Inconel® X750 (UNS N07750)
Piston	ASTM A479 316/316L Stainless Steel
O-Rings	FPM/FKM Low Temp & AED (Viton)
Loading Spring	ASTM A240 301 Stainless Steel (UNS S30100)

Seat Leakage	In accordance with ANSI/FCI 70-3
Operating Temperatures	-20°C to +150°C
Weight	0.54kg (1.2lbs)

## FEATURES AND BENEFITS

### 1 TWO-STAGE DESIGN

Accurate pressure control through two-stages of pressure reduction.

### 2 0.04% DECAYING PRESSURE EFFECT

Stable pressure control under varying inlet conditions.

### 3 SOLID DISK SEAT DESIGN

Perfect for use in aggressive or harsh conditions challenging conditions.

### 4 LIGHTWEIGHT DESIGN

Aluminium body provides users with a lightweight pressure control solution.

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.



#### PRESSURE TECH LTD

Unit 24, Graphite Way, Hadfield, Glossop, Derbyshire, UK, SK13 1QH

+44 (0)1457 899 307 | [sales@pressure-tech.com](mailto:sales@pressure-tech.com) | [www.pressure-tech.com](http://www.pressure-tech.com)

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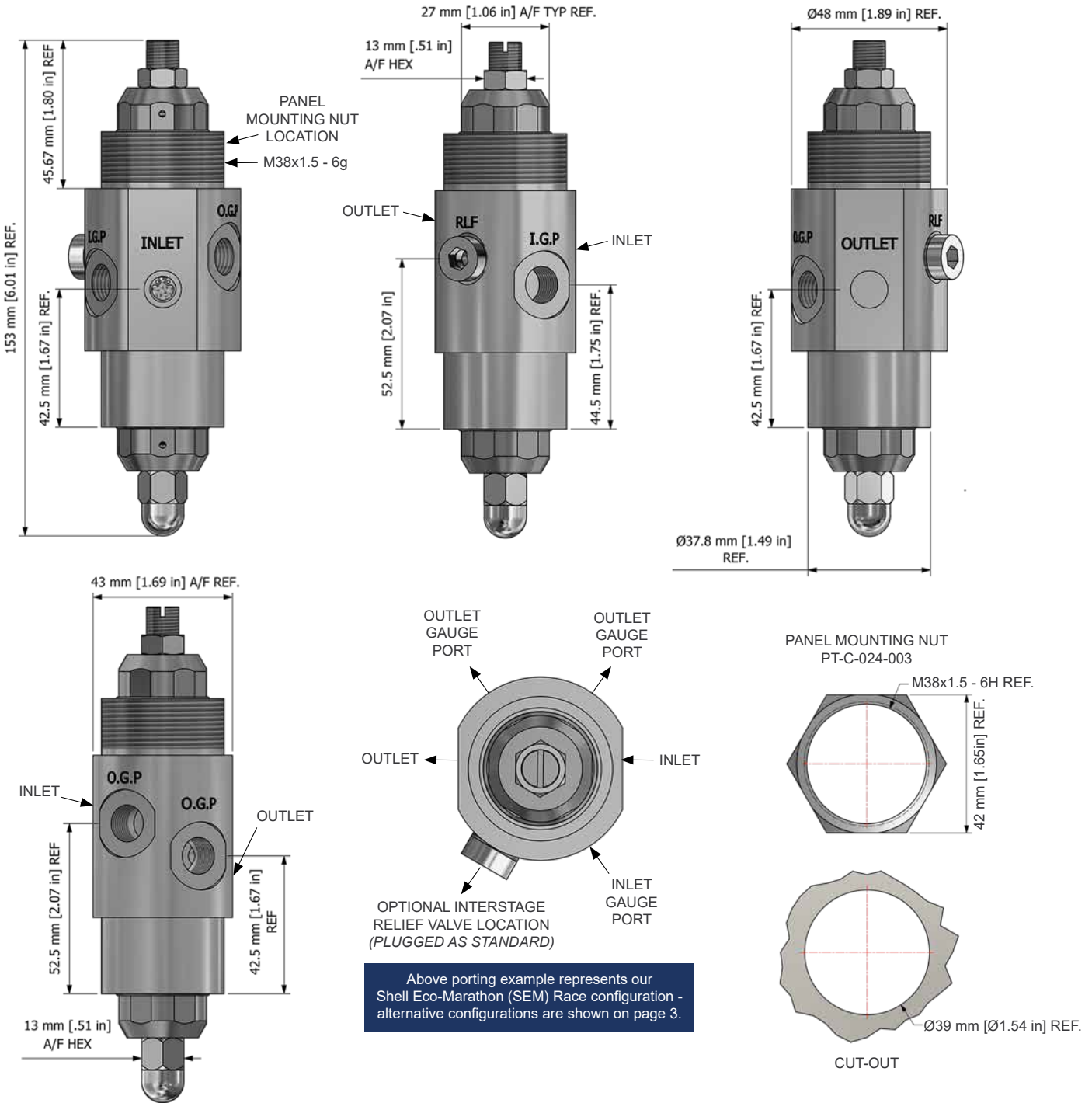
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## DRAWINGS AND INSTALLATION DIMENSIONS

Dimensions shown for 1/4" NPT and standard configurations only – please contact the office for other options.



Above porting example represents our Shell Eco-Marathon (SEM) Race configuration - alternative configurations are shown on page 3.

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**PRESSURE TECH LTD**  
 Unit 24, Graphite Way, Hadfield, Glossop, Derbyshire, UK, SK13 1QH  
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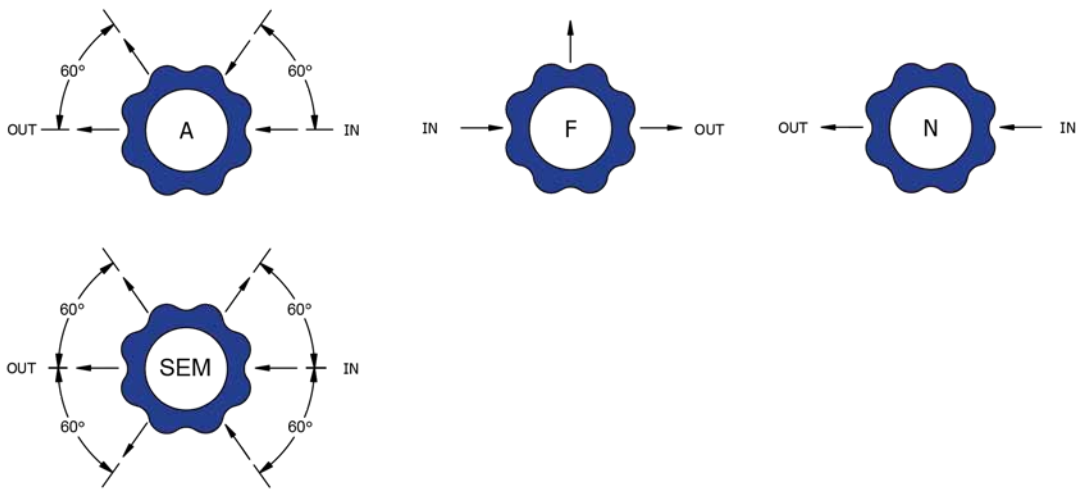


Gas  Liquid |  Diaphragm  Piston |  Self-Venting  Non-Venting | Max Inlet: 414 bar (6,000 psi) | Max Outlet: 1 bar (14.5 psi) | Cv 0.06

## FLOW CURVE

Please contact the office for further information.

## PORTING CONFIGURATIONS



### Note:

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

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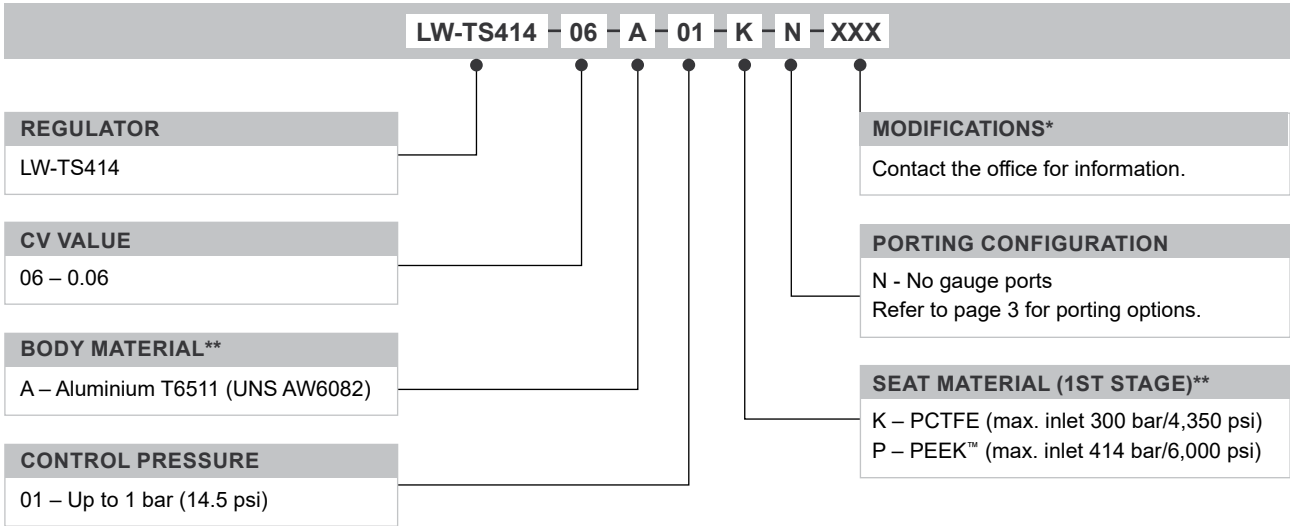
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## ORDERING INFORMATION

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



OPTIONAL EXTRAS		
	PART NUMBER	DESCRIPTION
Service Kit	SRK-LW-TS414-06-K	PCTFE SEAT and FKM/FPM seals

*Note:* Ancillary equipment also available

**TRADEMARKS:** PEEK™ is a trademark of Victrex PLC  
Inconel® is a registered trademark of Inco Alloys International

\* Where applicable  
\*\* Other materials may be available

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