

XHS411 Datasheet

SINGLE-HEATED PRESSURE REGULATOR



● Gas ● Liquid ● Diaphragm ● Piston ● Self-Venting ● Non-Venting | Max Inlet: 414 bar (6,000 psi) | Max Outlet: 150 bar (2,175 psi) | Cv 0.06

IN-LINE



SIDE-ENTRY



INTRODUCING THE XHS411...

The XHS411 is a piston-sensed, economical single heated regulator, available in side-entry (SE) or in-line (IL) heat transfer options to maintain sample gases in their vapour state. The SE design can be used where heat transfer is less critical, and where installations have height restrictions. The IL design maximises the heat transfer area via a spiral machined heater sheath, which mixes the gas and ensures efficient heat transfer. The XHS411 is certified to ATEX and IECEx, and its electrical enclosure meets the requirements of IP66 and NEMA 4X specifications.

ATEX AND IECEx EQUIPMENT MARKINGS

Ex II 2 G
Ex db IIC T3 Gb
-40°C ≤ Ta ≤ 60°C
CE 2183

USA AND CANADA EQUIPMENT MARKINGS

US and CAN: CL I, D1 T3 Gps A-D
US: CL1, Zone 1 AEx db IIC T3 Gb
CAN: Ex db IIC T3 Gb (as IEXEx)
Ta: -40°C to 59°C

FEATURES AND BENEFITS

1 ATEX & IECEx CERTIFIED

Certified for use in hazardous areas.

2 ALTERNATIVE MATERIALS AVAILABLE

Manifold is available in aluminium or 316 stainless steel.

3 DIGITAL TEMPERATURE READOUT

Digital display of set point or actual temperature (°C or °F).

4 OPTIONAL POWER SUPPLY

115 or 230V AC.

5 LOCAL OR REMOTE ADJUSTMENT

Local or remote temperature setpoint adjustment via analogue 4-20mA input signal.

PRODUCT CERTIFICATIONS



STANDARD MATERIALS OF CONSTRUCTION

PART	MATERIALS
Body and Bonnet	ASTM A479 316/316L Stainless Steel (UNS S31600/S31603)
Main Valve Pin	ASTM A479 316/316L Stainless Steel (UNS S31600/S31603)
Soft Seat	PEEK™ (450G)
Valve Spring	Inconel® X750 (UNS N07750)
Piston	ASTM A479 316/316L Stainless Steel (UNS S31600/S31603)
O-Rings	FKM/FPM (Viton)
Electric Enclosure	Aluminium
	ASTM A479 316/316L Stainless Steel (UNS S31600/S31603)

SPECIFICATION

Max. Rated Inlet Pressure	414 bar (6,000 psi)
Outlet Ranges	Up to 150 bar (2,175 psi)
Design Proof Pressure	150% max. working pressure
Seat Leakage	In accordance with ANSI/FCI 70-3
Wattage: 115V @ 60 Hz	100 W
Wattage: 230V @ 50 Hz	100 W
Temperature Control Range	30°C to 180°C
Min. Ambient Temperature	-40°C
Max. Ambient Temperature	60°C
Regulator Max. Body Temp	150°C
Weight	4.1kg (9lbs)

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

NOTE: 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

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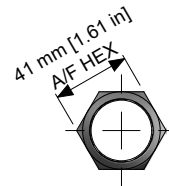
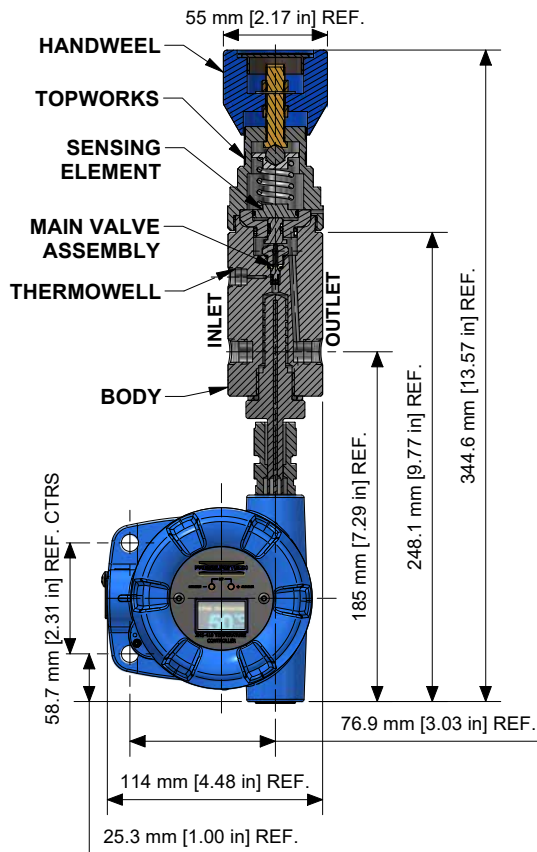
DRAWINGS AND INSTALLATION DIMENSIONS

Note:

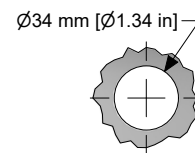
All gauge ports are 1/4" NPT as standard.

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

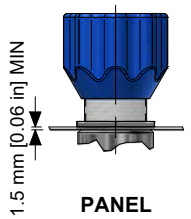
IN-LINE



PANEL MOUNT NUT
(PT-C-024)
STAINLESS STEEL

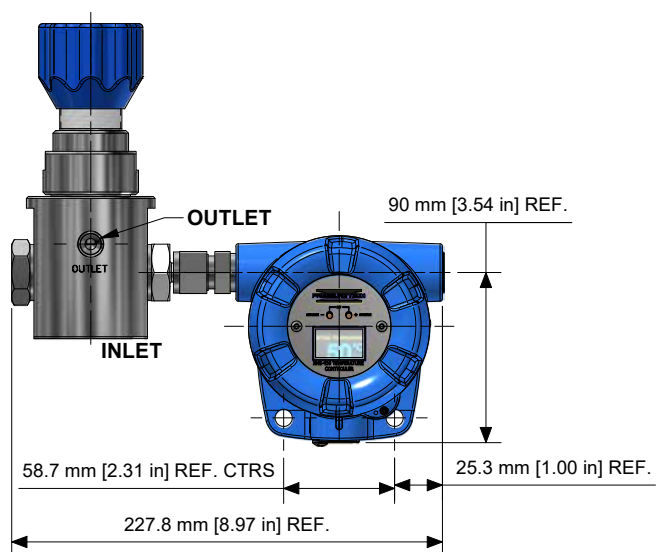
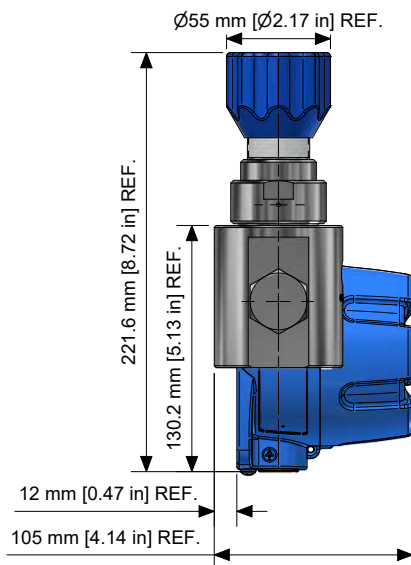


PANEL CUTOUT



PANEL

SIDE-ENTRY



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Gas

Liquid

Diaphragm

Piston

Self-Venting

Non-Venting

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Cv 0.06

ENCLOSURE OPTIONS

ALUMINUM (WITH WINDOW)

ENCLOSURE OPTIONS				
-	CONDUIT (A)	CONDUIT (B)	CONDUIT (C)	
ALUMINIUM WITH WINDOW	A	1/2" NPT	1/2" NPT	1/2" NPT
	B	NONE	1/2" NPT	1/2" NPT
	C	NONE	M20	M20
ALUMINIUM SOLID COVER	D	1/2" NPT	1/2" NPT	1/2" NPT
	E	NONE	1/2" NPT	1/2" NPT
	F	NONE	M20	M20
STAINLESS STEEL WITH WINDOW	G	1/2" NPT	1/2" NPT	1/2" NPT
	H	NONE	1/2" NPT	1/2" NPT
	J	NONE	M20	M20
STAINLESS STEEL SOLID COVER	K	1/2" NPT	1/2" NPT	1/2" NPT
	L	NONE	1/2" NPT	1/2" NPT
	M	NONE	M20	M20

STAINLESS STEEL (SOLID COVER)

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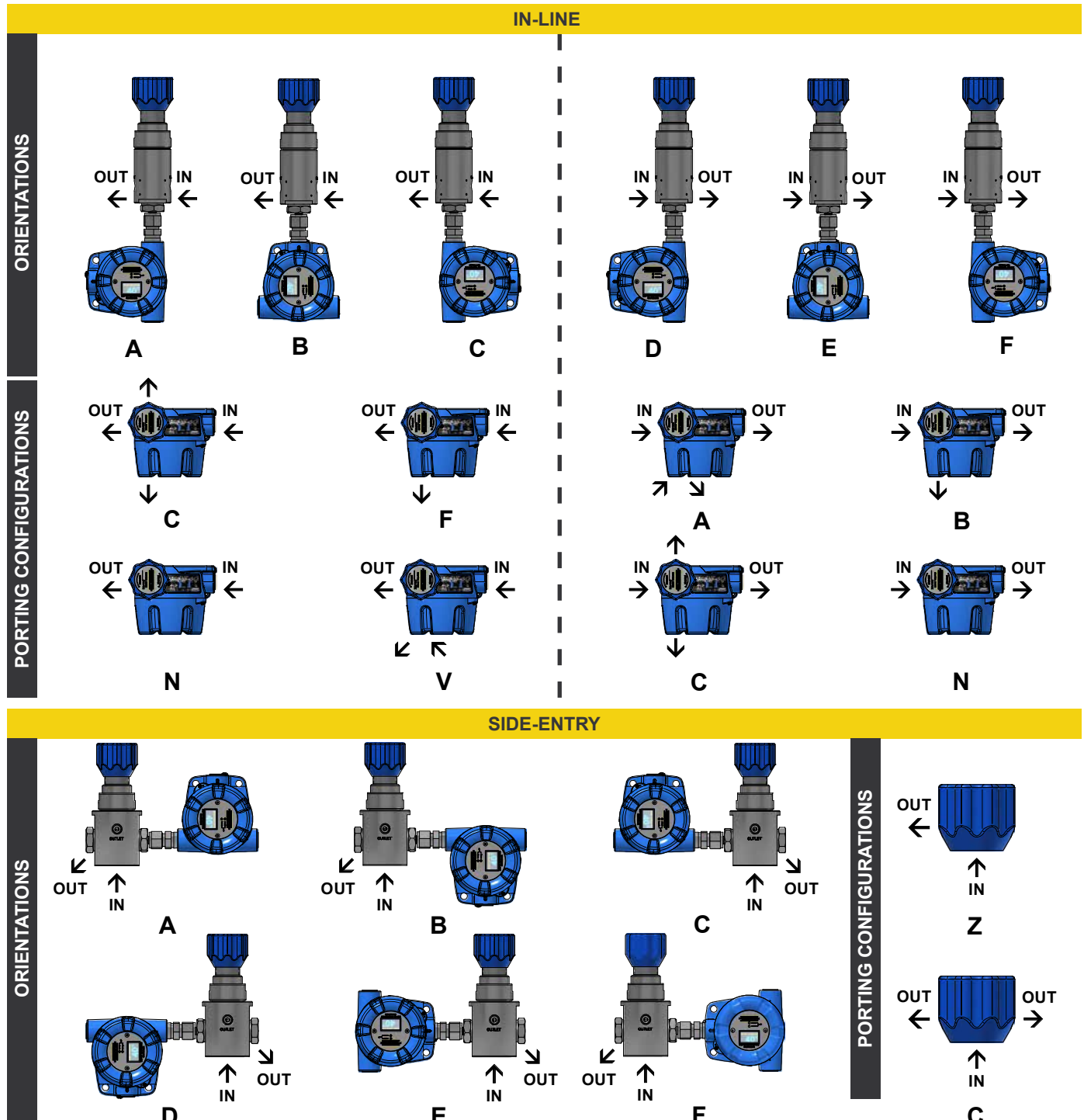
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ASSEMBLY ORIENTATIONS

To select a valid assembly, choose your required orientation and then combine with a compatible porting configuration. Please note - gauge ports must be in a forward-facing position.



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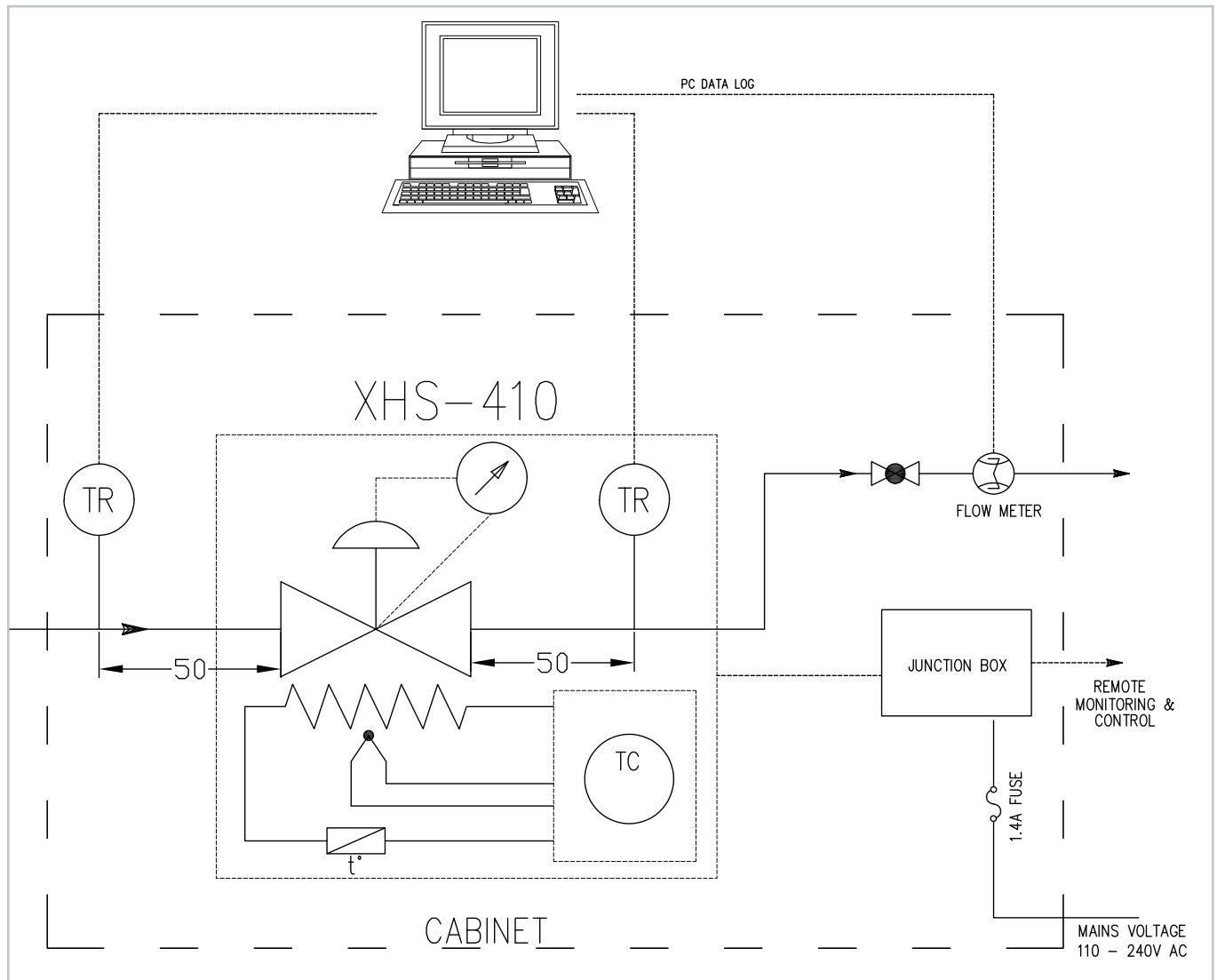
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FLOW TEST LAYOUT



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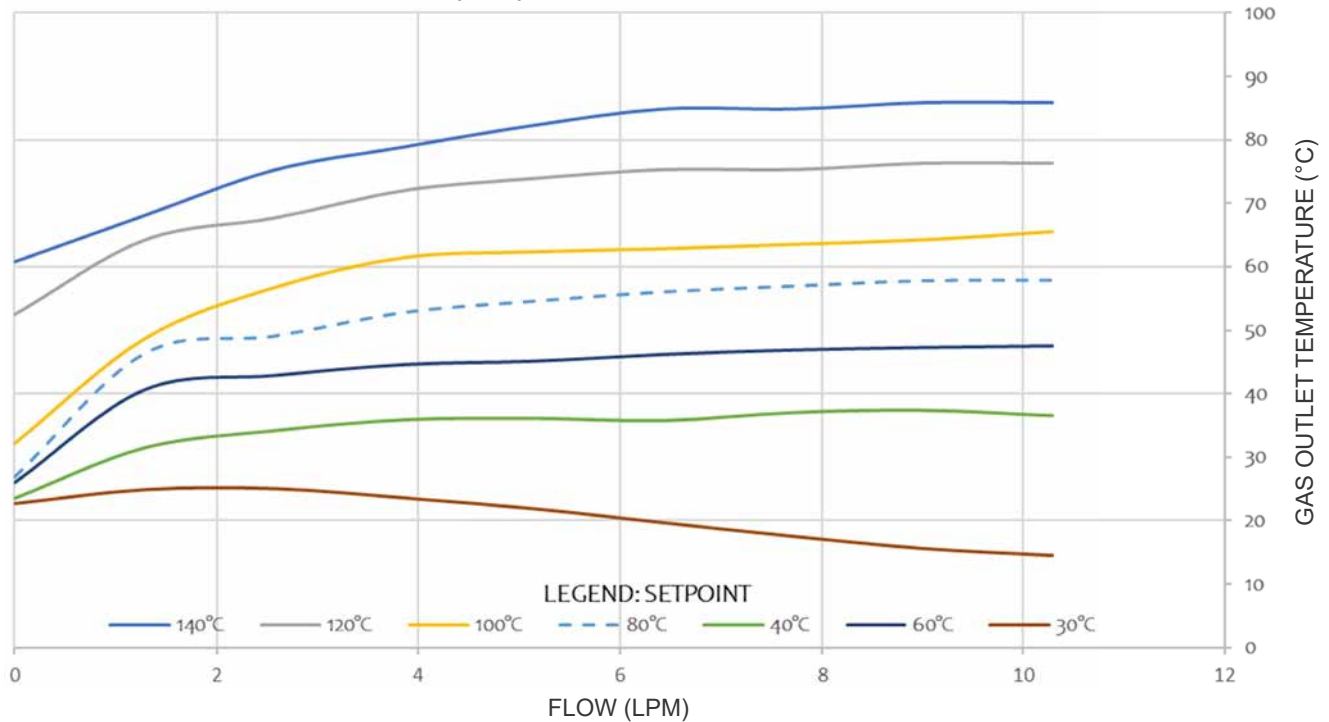
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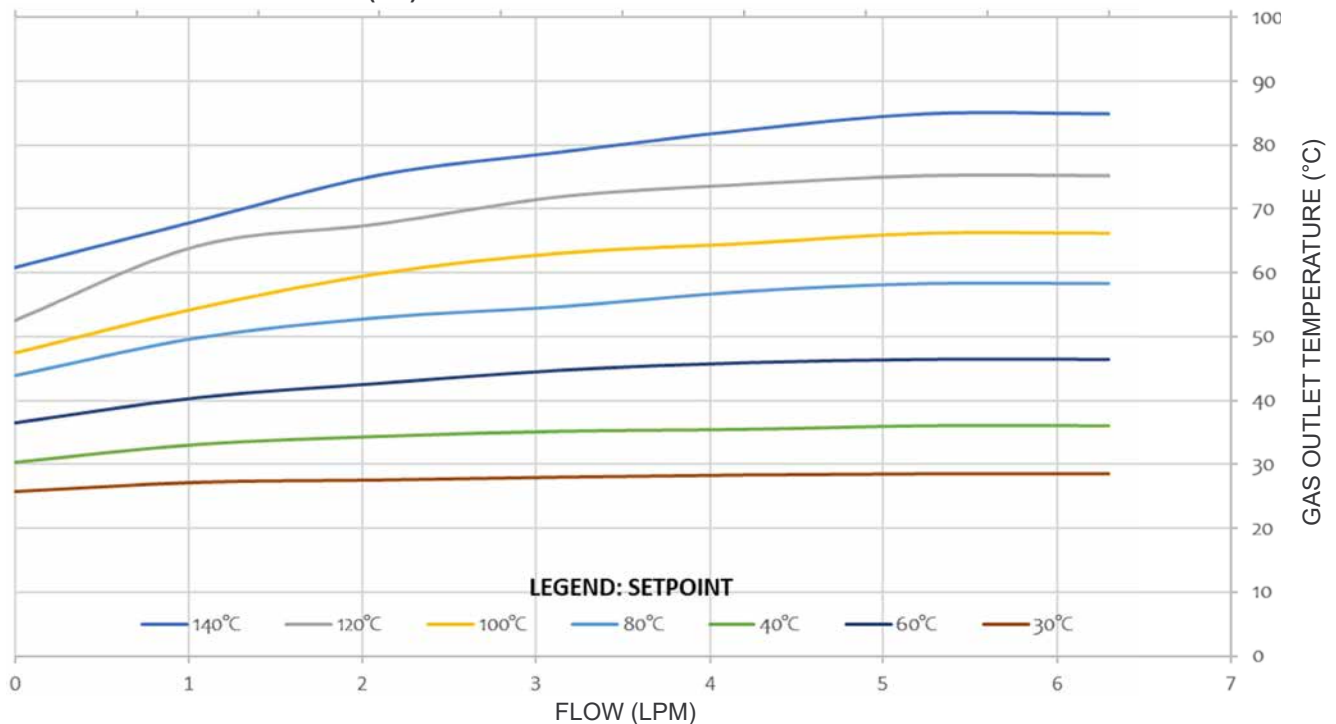


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FLOW CURVE - CARBON DIOXIDE (CO₂)



FLOW CURVE - NITROGEN (N₂)



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ORDERING INFORMATION

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

XHS411	IL	S	10	P	2	A	B	N	XXX
REGULATOR XHS411	HEATER CARTRIDGE POSITION IL – In-Line SE – Side-Entry	BODY MATERIAL** S – ASTM A479 316/316L Stainless Steel	CONTROL PRESSURE 10 – Up to 10 bar (145 psi) 20 – Up to 20 bar (290 psi) 50 – Up to 50 bar (725 psi) 100 – Up to 100 bar (1,450 psi) 150 – Up to 150 bar (2,175 psi)	SEAT MATERIAL** K – PCTFE – max. in 300 bar/4,350 psi M – Polysulfone (PSU) – max. in 414 bar/6,000 psi P – PEEK™ – max. in 414 bar/6,000 psi	POWER SUPPLY 1 – 115V AC 2 – 230V AC	MODIFICATIONS* Contact the office for information.	PORTING CONFIGURATION N – No gauge ports Refer to page 4 for porting options.	ORIENTATION Refer to page 4 for orientation options.	ENCLOSURE OPTIONS Aluminium with Window A – 1/2" NPT (A), 1/2" NPT (B), 1/2" NPT (C) B – None (A), 1/2" NPT (B), 1/2" NPT (C) C – None (A), M20 (B), M20 (C) Aluminium with Solid Cover D – 1/2" NPT (A), 1/2" NPT (B), 1/2" NPT (C) E – None (A), 1/2" NPT (B), 1/2" NPT (C) F – None (A), M20 (B), M20 (C) Stainless Steel with Window G – 1/2" NPT (A), 1/2" NPT (B), 1/2" NPT (C) H – None (A), 1/2" NPT (B), 1/2" NPT (C) J – None (A), M20 (B), M20 (C) Stainless Steel with Solid Cover K – 1/2" NPT (A), 1/2" NPT (B), 1/2" NPT (C) L – None (A), 1/2" NPT (B), 1/2" NPT (C) M – None (A), M20 (B), M20 (C) Refer to page 3 for location of conduits A, B and C.

OPTIONAL EXTRAS

	PART NUMBER	DESCRIPTION
Service Kit	SRK-LF311...	Various options available
Panel Mounting Ring	PT-C-024	-

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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