

LW351 Datasheet

PRESSURE REGULATOR FOR
LIGHTWEIGHT HYDROGEN FUEL CELL APPLICATIONS

● Gas ● Liquid | ● Diaphragm ● Piston | ● Self-Venting ● Non-Venting | Max Inlet: 350 bar (5,075 psi) | Max Outlet: 3 bar (45 psi) | Cv 0.06



INTRODUCING THE LW351...

The LW351 is a piston-sensed pressure regulator, designed specifically to provide constant pressure supply to the hydrogen fuel cell for lightweight applications. With a low 0.15% decaying pressure effect, it offers accurate control in a single-stage pressure reduction.

When weight is a critical consideration for your application, the LW351 is the perfect solution. It's compact size and lightweight design (down to 0.2kg) fits the bill, and additionally offers direct mounting to the Hydrogen cylinder.

SPECIFICATION

Max. Rated Inlet Pressure	350 bar (5,075 psi)
Outlet Ranges	Up to 3 bar (45 psi)
Design Proof Pressure	150% max. working pressure
Seat Leakage	In accordance with ANSI/FCI 70-3
Weight	0.2kg (min.)

Pressure regulator rating may be limited by connection type, Cv and/or seat material

FEATURES AND BENEFITS

1 LIGHTWEIGHT & COMPACT

Weighs as little as 200g - perfect if application would benefit from a lightweight solution.

2 PISTON SENSING ELEMENT

Perfect for use in challenging conditions.

3 0.15% DECAYING PRESSURE EFFECT

For stable pressure control, even under depleting gas supply conditions.

4 DIRECT MOUNTING TO CYLINDER

Quick and convenient design.

STANDARD MATERIALS OF CONSTRUCTION

PART	MATERIALS
Body and Bonnet	Aluminium Alloy (AW6082)
Main Valve Pin	AISI 316/316L Stainless Steel (UNS S31600/S31603)
Seat	PCTFE
Valve Spring	Inconel® X750
Piston	Aluminium Alloy (AW6082)
O-Rings	FKM/FPM
Loading Spring	AISI 17-7 PH Stainless Steel (UNS S17700)
Filter	40 Microns

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.



DESIGNED AND BUILT IN THE UK

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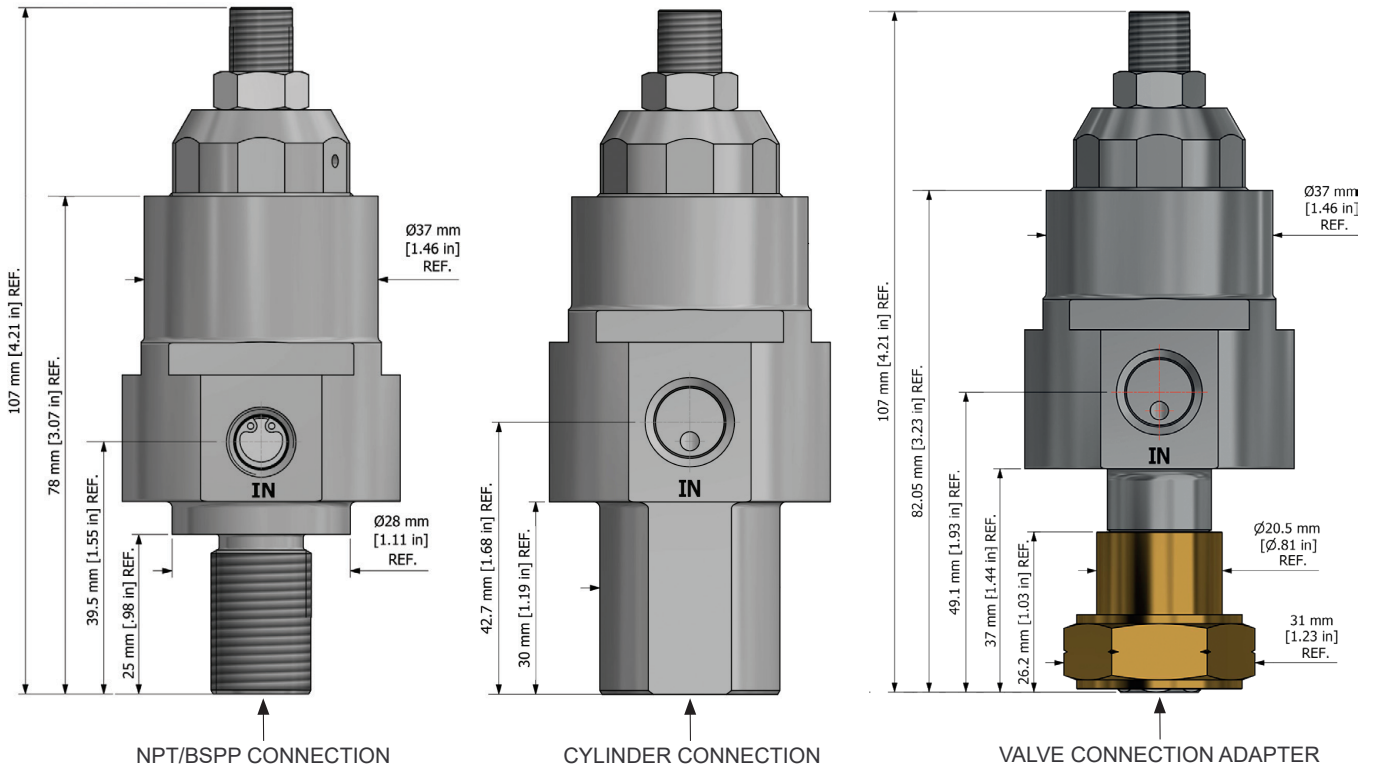
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DRAWING AND INSTALLATION DIMENSIONS

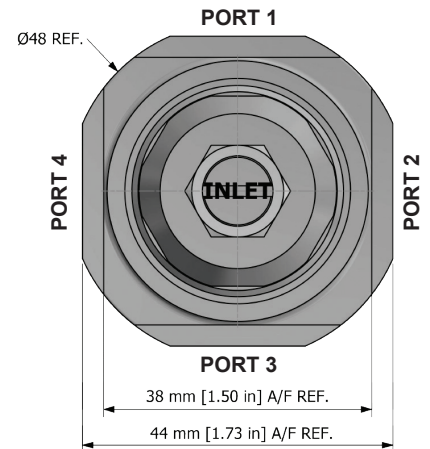
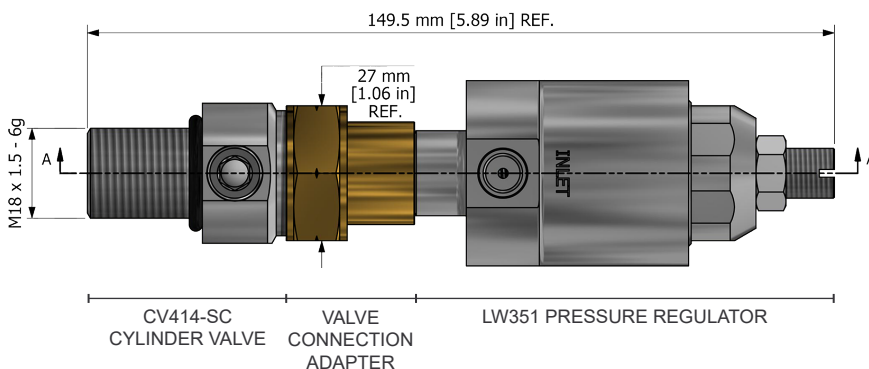


CV414 CYLINDER VALVE

Our LW351 regulator features an optional Valve Connection Adapter (VCA) inlet, offering connection to our CV414 cylinder valve (*sold separately*) - ask for details.

PORT POSITIONS

Use 'ORDERING INFORMATION' on page 4 to select connection size and type for each port position (1 to 4):



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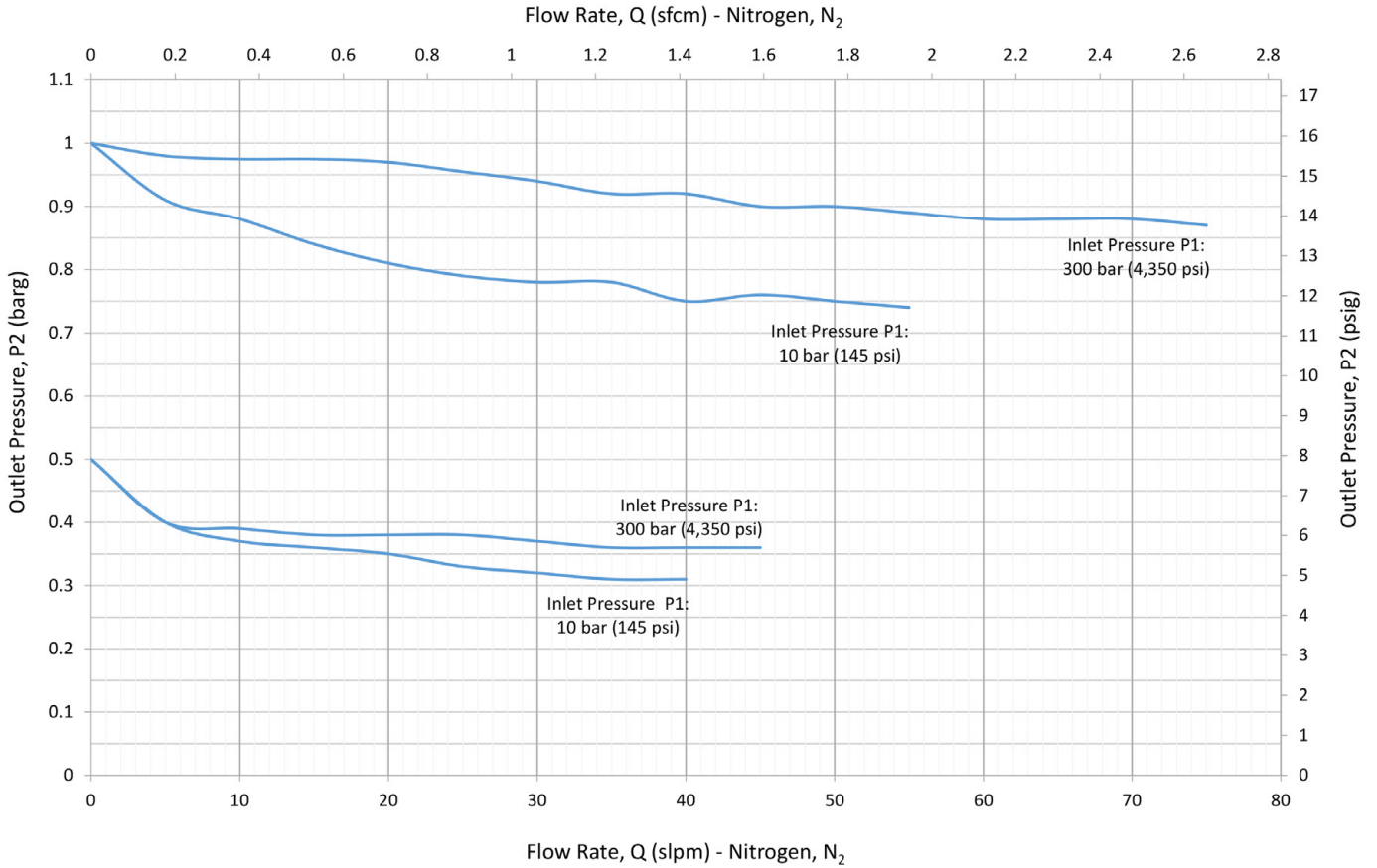
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FLOW CURVES



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ORDERING INFORMATION

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

LW351 - 06 - A - 01 - V - K - 01C - A B C D - XXX							
REGULATOR MODEL/SERIES	LW351 – For Lightweight Hydrogen Fuel Cell Applications - Piston-Sensed					PORTS 1 2 3 4	MODIFICATIONS*
CV VALUE	06 – 0.06						PORT CONNECTION SIZES/TYPES** X – No port B – Inlet with 1/4" BSPP D – Inlet with 1/4" NPT L – Inlet with 1/4" SAE A – Inlet with 1/8" BSPP C – Inlet with 1/8" NPT E – Inlet with 3/8" 24 UNF (Burst Disc) S – Inlet with 1/2" BSPP K – Inlet with M8x1 (Transducer Port) P – Inlet with M10 x 1 (Transducer Port) N – Inlet with M11 x 0.75 (Burst Disc) F – Outlet with 1/8" BSPP H – Outlet with 1/8" NPT G – Outlet with 1/4" BSPP J – Outlet with 1/4" NPT M – Outlet with 1/4" SAE R – Outlet with 9/16" -18 #6 SAE T – Outlet with M8x1
BODY MATERIAL**	A – Aluminium Alloy (AW6082)						
CONTROL PRESSURE	01 – Up to 1 bar (14.5 psi) 02 – Up to 2 bar (29 psi) 03 – Up to 3 bar (45 psi)						
O-RING MATERIAL**	E – EPDM V – FKM/FPM						
SEAT MATERIAL**	K – PCTFE						
INLET CONNECTION** (BASE OF REGULATOR)	01C – 5/8"-18 UNF Cylinder (Male) 02C – M18 x 1.5 Cylinder (Male) 02B – 1/4" BSPP (Female) 02N – 1/4" NPT (Female) VCA – Valve Connection Adapter X – No Inlet Connection						
						Please contact the office for further information.	

For reference, please see page 2 for position of ports '1', '2', '3' and '4'.

OPTIONAL EXTRAS

	PART NUMBER	DESCRIPTION
Service Kit	SRK-LW351-06-A-01-V-K...	LW351 service kit.

Note: Ancillary equipment also available

TRADEMARKS: Inconel® is a registered trademark of Inco Alloys International

* Where applicable

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

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