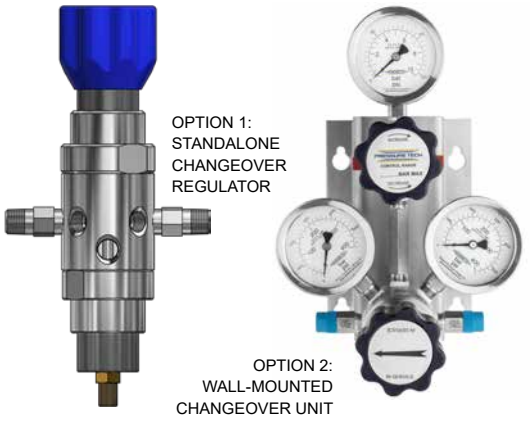
ACU310 Datasheet

AUTO-CHANGEOVER REGULATOR / UNIT

PRESSURE TECH

Gas | Liquid | Diaphragm | Piston | Self-Venting | Non-Venting | Max Inlet: 300 bar (4,350 psi) | Max Outlet: 20 bar (290 psi) | Cv 0.06



OPTION 1: STANDALONE CHANGEOVER REGULATOR

OPTION 2: WALL-MOUNTED CHANGEOVER UNIT

INTRODUCING THE ACU310...

The ACU310 is available in two configurations:

Option 1: A standalone changeover regulator comprising of two pressure regulators within one regulator body. This allows the continual supply of gas between two bottles due to the differential pressure setting of the two regulators. This will lead to a change in the outlet pressure as the changeover between the primary and secondary supply takes place.

Option 2: A compact wall-mounted changeover unit that provides a steady outlet pressure from a second-stage pressure regulator as the first-stage changeover regulator controls the pressure from the primary and secondary gas cylinders.

Check valves are fitted as standard to both options to prevent gas from escaping whilst bottles are replaced. Ancillary equipment such as pressure gauges and relief valves can also be added.

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
Soft Seat	PCTFE (Kel-F) PEEK™** (450G)
Valve Spring	Inconel® X750 (UNS N07750)
Diaphragm	Inconel® X750
Handwheel	Nylon
O-Rings	FKM/FPM (Viton)
Loading Spring	ASTM A240 301 Stainless Steel (UNS S30100)
Filter	40 Microns

SPECIFICATION

Max. Rated Inlet Pressure	300 bar (4,350 psi)*
Outlet Ranges	Up to 20 bar (290 psi)**
Design Proof Pressure	150% max. working pressure
Seat Leakage	In accordance with ANSI/FCI 70-3
Weight	3.6kg (7.9lbs)

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

** PEEK™ seat only available if ACU310 is supplied as Option 1.

FEATURES AND BENEFITS

1 INCONEL® X750 DIAPHRAGM

For ultimate strength and reliability.

2 USER-FRIENDLY DESIGN

Simple half turn operation with easy-to-read indication.

3 SECOND STAGE REGULATOR

To prevent fluctuations in supply pressure.

4 0.01% DECAYING PRESSURE EFFECT

Stable outlet pressure under varying inlet conditions.

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
Units 1-2, Graphite Way, Hadfield, Glossop, Derbyshire, UK, SK13 1QH
+44 (0)1457 899 307 | sales@pressure-tech.com | www.pressure-tech.com

DESIGNED, MANUFACTURED AND BUILT IN THE UK

© 2026 Pressure Tech Ltd. All Rights Reserved.

ACU310 Datasheet

AUTO-CHANGEOVER REGULATOR / UNIT

PRESSURE TECH

| | | |

ACU310 Datasheet

AUTO-CHANGEOVER REGULATOR / UNIT

PRESSURE TECH

Gas | Liquid | Diaphragm | Piston | Self-Venting | Non-Venting | Max Inlet: 300 bar (4,350 psi) | Max Outlet: 20 bar (290 psi) | Cv 0.06

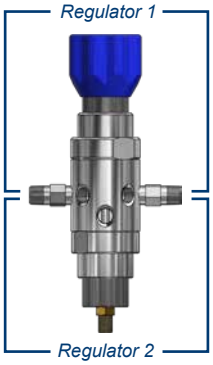
PRINCIPLES OF OPERATION

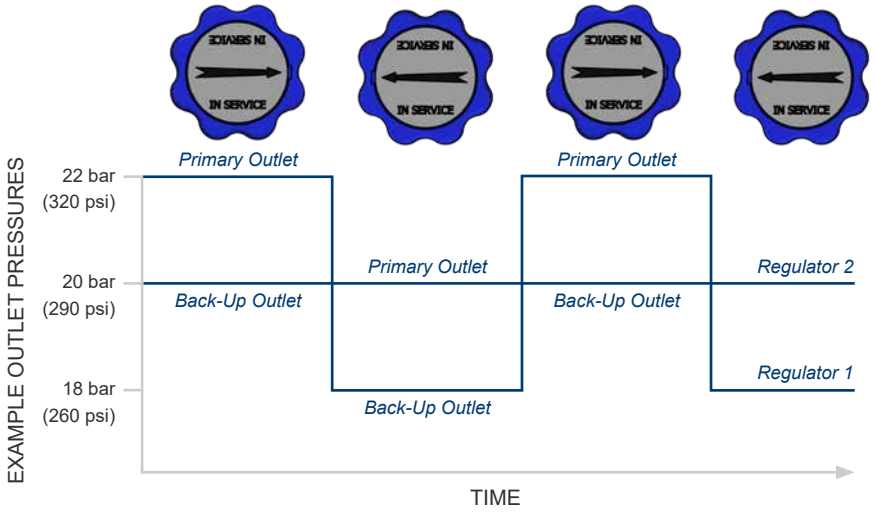
Changeover pressure regulators operate by using two pressure regulators (within the same body) with differing outlet pressures supplying into a common outlet port. Whilst the primary regulator provides a higher pressure than the secondary regulator, the latter will remain closed and prevent any gas from the gas cylinder (connected to the inlet port) from being supplied to the process. This secondary regulator will only start to open when the pressure from the primary supply drops below the setpoint pressure.

A 180° handwheel turn resets the outlet pressure so that the roles of the primary and secondary regulators are reversed - the depleted gas cylinder can then be replaced. This mode of operation means there is always a variance in the outlet pressure, typically 5-6 bar (72-85 psi), when the ACU310 is used in isolation.

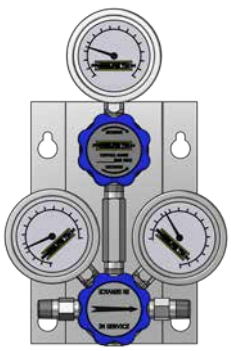
A second-stage pressure regulator (shown on option 2) ensures a steady outlet pressure to the process whilst the ACU310 ensures a constant supply from two banks of gas cylinders.

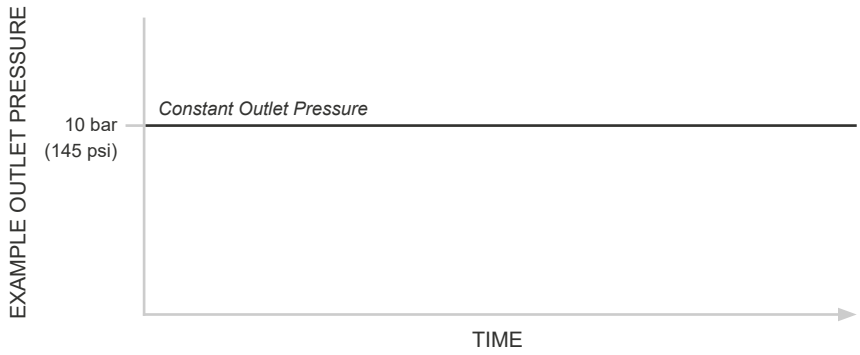
OPTION 1: STANDALONE CHANGEOVER REGULATOR





OPTION 2: WALL-MOUNTED CHANGEOVER UNIT





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
Units 1-2, Graphite Way, Hadfield, Glossop, Derbyshire, UK, SK13 1QH
+44 (0)1457 899 307 | sales@pressure-tech.com | www.pressure-tech.com

DESIGNED, MANUFACTURED AND BUILT IN THE UK

© 2026 Pressure Tech Ltd. All Rights Reserved.

ACU310 Datasheet

AUTO-CHANGEOVER REGULATOR / UNIT

PRESSURE TECH

◉ Gas	○ Liquid	◉ Diaphragm	○ Piston	○ Self-Venting	◉ Non-Venting	Max Inlet: 300 bar (4,350 psi)	Max Outlet: 20 bar (290 psi)	Cv 0.06

FLOW CURVE

Please contact the office for further information.

ORDERING INFORMATION

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

ACU310 – 1 – S – 20 – P – N – N – XXX

REGULATOR

ACU310

REGULATOR OPTION

1 – Standalone Changeover Regulator
2 – Wall-Mounted Changeover Unit

BODY MATERIAL**

S – ASTM A479 316/316L Stainless Steel

CONTROL PRESSURE

02 – Up to 2 bar (29 psi)
04 – Up to 4 bar (58 psi)
10 – Up to 10 bar (145 psi)
20 – Up to 20 bar (290 psi) - Regulator Option 1 Only****

MODIFICATIONS*

Contact the office for information.

RELIEF VALVE

N – No relief valve
R – Fitted with relief valve

GAUGE OPTION

N – No gauges (standard gauge ports included)
G – Gauges included

SEAT MATERIAL**

K – PCTFE
P – PEEK™***

OPTIONAL EXTRAS

	PART NUMBER	DESCRIPTION
Service Kit	SRK-ACU310...	Various options available
Panel Mount Ring	PT-C-024	-

Note: Ancillary equipment also available

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

* Where applicable
** Other materials/connections may be available
*** PEEK™ seat only available for ACU310 option 1 - Standalone Changeover Regulator)
**** Optional higher changeover pressure available on request

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
Units 1-2, Graphite Way, Hadfield, Glossop, Derbyshire, UK, SK13 1QH
+44 (0)1457 899 307 | sales@pressure-tech.com | www.pressure-tech.com

DESIGNED, MANUFACTURED AND BUILT IN THE UK

© 2026 Pressure Tech Ltd. All Rights Reserved.