

Description

The RL series is a range of unbalanced, dome-loaded regulators that provide a flow of gas or liquid at controlled pressure. The outlet pressure is set by adjusting the pressure in the dome. A flexible diaphragm separates the gas in the dome from the process fluid.

The dome must be charged with an inert gas such as air or nitrogen. If the process gas is inert, it may be used to charge the dome – we call this “Body Loading”. Alternatively, the dome may be charged from an external source – we call this “Mono Loading”. The external source can also be used to set the outlet pressure remotely. Provision can be made for either or both (“Dual Loading”) methods. The outlet pressure is substantially unaffected by flow rate but it does drop slightly as the inlet pressure is increased.

Additional outlet ports can be provided for convenient direct fitting of our relief valves.



Standard Specification

See next page for specification of individual types

- External charging port: G1/8 female
- Temperature range: -20 to +70°C (extended temperature range versions can be supplied)

Standard Materials

Alternative materials can be supplied

- Body & Dome: Nickel Aluminium Bronze, Stainless Steel or Aluminium Alloy
- Valve Pad: Nitrile or Polythene
- Diaphragm: Nitrile

Options

Please contact us for details

- Ports: alternative port configurations can be supplied
- Relief Valves: close coupled relief valves can be supplied
- Materials: suitable combinations of materials can be supplied for various applications such as Oxygen service.
- Certification: variants are available approved for use with Oxygen, for medical Oxygen service or for ATEX service

Ordering Information

Please supply the following information when ordering

- Body/Valve size reference (RL1, RL2 etc.)
- Maximum inlet pressure
- Outlet pressure range
- Flow medium
- Dome charging method (see Description)
- Port configuration
- Operating and storage temperature ranges
- Mounting brackets required
- Certification and QA requirements

In addition to our standard product range, we have an extensive range of special designs and offer a custom build service. Contact our Sales office if you don't see what you want in our catalogue. The information contained within this catalogue is for reference purposes only and is subject to change.

When selecting a product, the total system design must be considered to ensure safe, trouble free performance. Component function, material compatibility, adequate ratings, proper installation, operation and maintenance are the responsibility of the system designer and user.

Hale Hamilton (Valves) Ltd
 Cowley Road, Uxbridge, UB8 2AF, UK
 Tel: 01895 236 525
www.halehamilton.com



HALE HAMILTON®

Excellence in Pressure & Flow Control

A CIRCOR International, Inc. Company

RL Series Low-Pressure Dome-Loaded Regulator

RL1, 2 & 3 (up to 14mm)

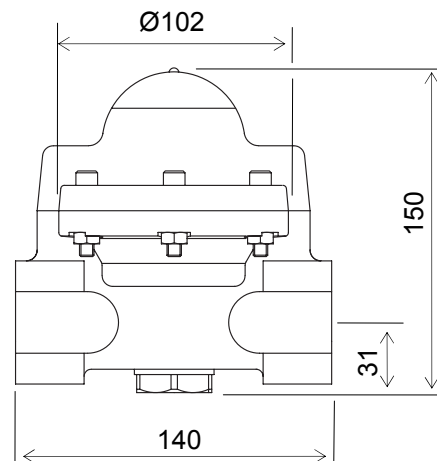
Specification

Type	RL1	RL2	RL3
Valve Size	5/16"	3/8"	9/16"
Nominal Bore mm	8	9	14
Inlet & outlet Ports	G3/8	G1/2	G1
Pressure Variation* %	4.5	4.5	9
Flow factor (Cv)	1.1	1.6	3

- Inlet pressure:
Aluminium Body - up to 35bar (500psi)
Bronze or Steel Body - up to 69bar (1000psi)
- Outlet pressure range:
Aluminium Body - 0.07 to 31bar (1 to 450psi)
Bronze or Steel Body - 0.07 to 65bar (1 to 950psi)
- Weight: approx. 1.6kg (Aluminium body) 3.6kg (Bronze body)

Typical Dimensions

in mm except where shown otherwise



RL4 & 5 (up to 25mm)

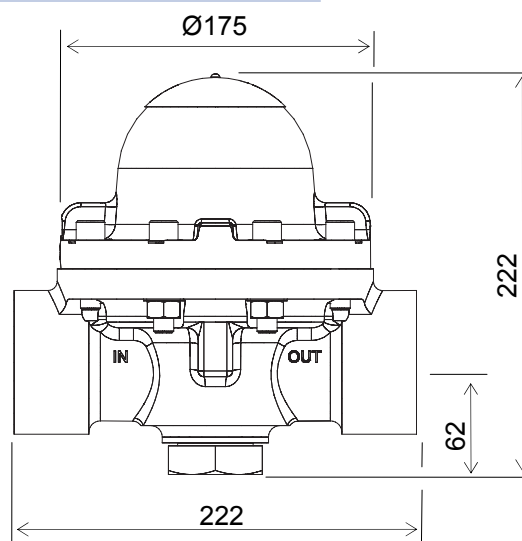
Specification

Type	RL4	RL5
Valve Size	3/4"	1"
Nominal Bore mm	19	25
Inlet & outlet Ports	G1 1/2	G2
Pressure Variation* %	4.2	6.7
Flow factor (Cv)	6	8

- Inlet pressure: up to 69bar (1000psi)
- Outlet pressure range: 0.07 to 65bar (1 to 950psi)
- Weight: approx. 6.4kg (Aluminium body) 14.5kg (Bronze body)

Typical Dimensions

in mm except where shown otherwise



* Pressure variation is the RISE in outlet pressure for a DROP in inlet pressure

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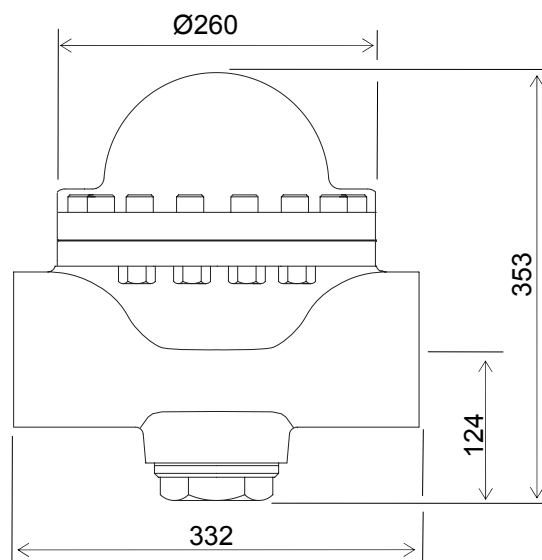
RL6 (51mm)

Specification

Type	RL6
Valve Size	2"
Nominal Bore mm	51
Inlet & outlet Ports	G3
Pressure Variation* %	9
Flow factor (Cv)	32
• Inlet pressure: up to 35bar (500psi) • Outlet pressure range: 0.07 to 31bar (1 to 450psi) • Weight: approx. 23kg (Aluminium body) 54kg (Bronze body)	

Typical Dimensions

in mm except where shown otherwise



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