



HALE HAMILTON[®]
Excellence in Pressure & Flow Control
A **CIRCOR** International, Inc. Company

Solenoid Valves



Solenoid Valves

Direct Acting

Piloted

Miniature

Coils for Solenoid Valves

We design, machine, build and test all our products on one site in Uxbridge. If you don't see what you want in our standard ranges, contact us and we'll do our best to meet your needs.

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



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Solenoid Valves Direct Acting

Description

Direct acting solenoid valves are two-way (i.e. two-position) with spring return. The solenoid is connected directly to the flow control components. Two port (open/close) and three port (changeover) types are available.

The valves are suitable for use with gases or liquids where tight shut-off is required in small-bore, low-flow, high-pressure lines.

The solenoid is isolated from the process flow. The solenoid mounting is standardised so the coil unit may be an industrial type or a rugged, water resistant type. Coils suitable for explosive atmospheres are also available. The coils are described in a separate data sheet.

The coil may be rotated on the valve body to allow the cable outlet to point in any direction.



Standard Specification

See next page for specification of individual types

- Temperature range: -20 to +70°C (extended temperature range versions can be supplied)

Materials

- The standard materials are listed for each type. Alternative materials can be supplied
- Suitable combinations of materials can be supplied for various applications such as Oxygen service, marine or petrochemical (NACE).

Options

Please contact us for details

- Ports: alternative port configuration can be supplied
- Various coil voltages are available (see Coil Data Sheet)
- 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

- Valve size
- Type and voltage of coil
- Maximum working pressure
- Flow medium
- Port configuration
- Operating and storage temperature ranges
- 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.

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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.

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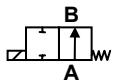
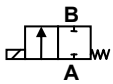
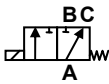
Excellence in Pressure & Flow Control

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Solenoid Valves Direct Acting

MV8, MV16 & MV17 (3mm)

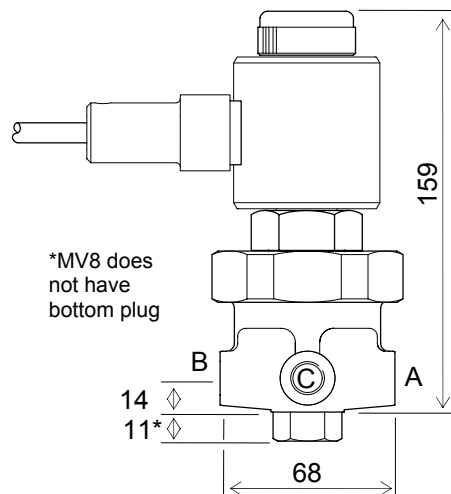
Specification

	MV8	MV16	MV17
Configuration:	2 port NO	2 port NC	3 port
			
Flow factor (Cv):	0.15	0.25	0.18

- Maximum Working Pressure: 138bar (2000psi)
- Nominal Bore 3mm (1/8")
- Inlet & outlet ports: G1/4 female
- Coil: Standard power (see Coil Data Sheet)
- Materials: Body – Aluminium Alloy, Seats – Nylatron, Valve – Stainless Steel, O rings - Nitrile
- Weight: approx. 1.6kg

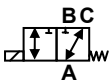
Typical Dimensions

in mm except where shown otherwise



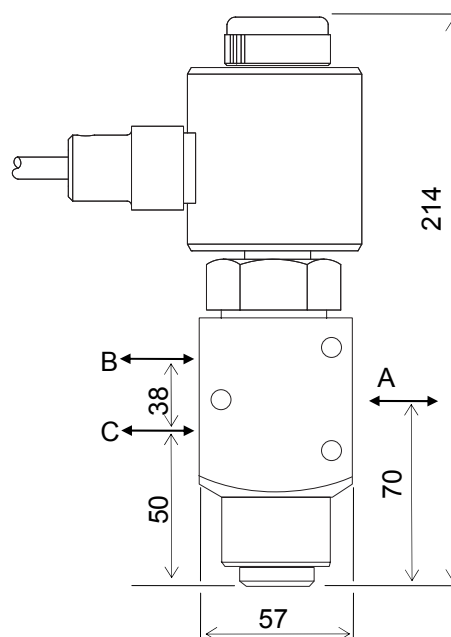
MV37 (3mm 3 port)

Specification

- Configuration: 3 port 
- Maximum Working Pressure: 414bar (6000psi)
- Nominal Bore 3mm (1/8")
- Inlet & outlet ports: G1/4 female
- Flow factor (Cv): 0.09
- Coil: High power (see Coil Data Sheet)
- Materials: Body – Nickel Aluminium Bronze, Seats – Nylatron or Copper, Valve – Stainless Steel, O rings - Nitrile
- Weight: approx. 2.5kg

Typical Dimensions

in mm except where shown otherwise



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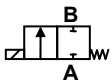
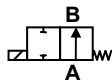
Solenoid Valves Direct Acting

MV14 & MV64 (5mm 2 port)

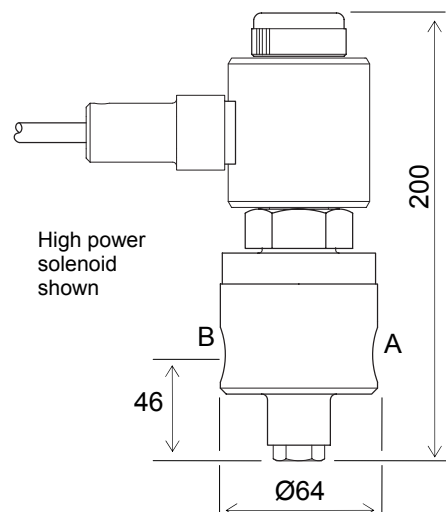
Typical Dimensions

in mm except where shown otherwise

Specification

	MV14	MV64
Configuration:	2 port NC	2 port NO
		
Maximum Pressure:	207 bar 3000psi	310 bar 4500psi
Coil (see Coil Data Sheet):	Standard power	High power

- Nominal Bore 5mm (3/16")
- Flow factor (Cv): 0.45
- Inlet & outlet ports: G1/4 female
- Materials: Body – Aluminium Alloy, Seats – PEEK, Valve – Stainless Steel, O rings - Nitrile
- Weight: approx. 1.6kg



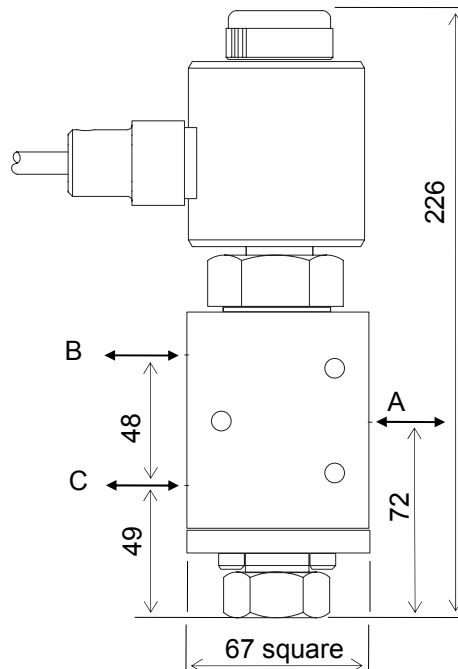
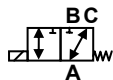
MV47 (6mm 3 port)

Typical Dimensions

in mm except where shown otherwise

Specification

- Configuration: 3 port
- Maximum Working Pressure: 207bar (3000psi)
- Nominal Bore 6mm (1/4")
- Inlet & outlet ports: G3/8 female
- Flow factor (Cv): 0.45
- Coil: High power (see Coil Data Sheet)
- Materials: Body – Nickel Aluminium Bronze, Seats – Nylatron or Copper, Valve – Stainless Steel, O rings - Nitrile
- Weight: approx. 3kg



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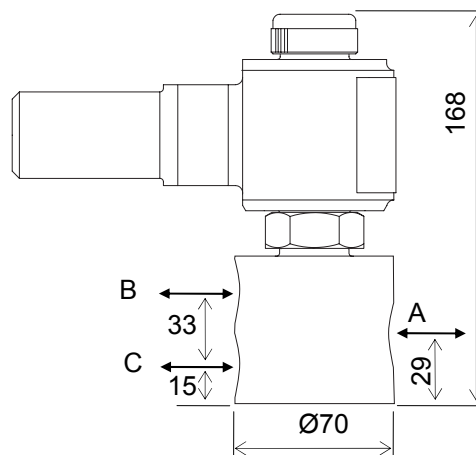
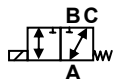
MV122 (2mm 3 port High Pressure for Offshore use)

Typical Dimensions

in mm except where
shown otherwise

Specification

- Configuration: 3 port
- Maximum Working Pressure: 690bar (10000psi)
- Nominal Bore 2mm
- Inlet & outlet ports: 1/4 NPT female
- Flow factor (Cv): 0.03 A to B, 0.006 A to C
- Coil: Standard power for explosive atmospheres (see Coil Data Sheet)
- Materials: Body – 316 Stainless Steel, Seats – PTFE, Valve – Stainless Steel, O rings - Nitrile
- Weight: approx. 4.1kg



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**HALE HAMILTON®***Excellence in Pressure & Flow Control*

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Solenoid Valves Pilot

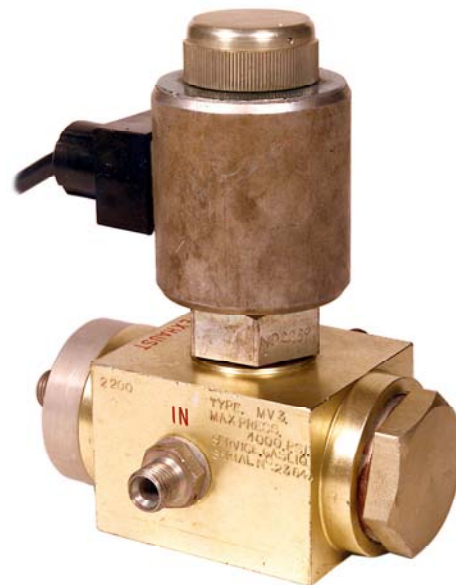
Description

Piloted valves consist of a solenoid operated pilot valve and a hydraulically operated main valve. Both valves are two-way (or two-position) with spring return.

The operating pressure for the pilot stage is taken from the main flow inlet with an internal filter to prevent blockage in the small passages. The pilot stage vents to a spill port. If required, the pilot stage can be isolated from the main stage with an independent inlet.

The valves are suitable for use with gases or liquids where tight shut-off is required in high-pressure lines. Two port (open/close) and three port (changeover) types are available and high flow capacities can be achieved.

The solenoid is isolated from the process flow. The solenoid mounting is standardised so the coil unit may be an industrial type or a rugged, water resistant type. Coils suitable for explosive atmospheres are also available. The coils are described in a separate data sheet.



The coil may be rotated on the valve body to allow the cable outlet to point in any direction.

Standard Specification

See next page for specification of individual types

- Temperature range: -20 to +70°C (extended temperature range versions can be supplied)
- All piloted valves use the standard power coil (see Coil Data Sheet)

Materials

- The standard materials are listed for each type. Alternative materials can be supplied
- Suitable combinations of materials can be supplied for various applications such as Oxygen service, marine or petrochemical (NACE).

Options

Please contact us for details

- Ports: alternative port configuration can be supplied
- Alternative valve configurations such as normally open pilot stage and/or main stage can be supplied
- Various coil voltages are available (see Coil Data Sheet)
- Independent pilot inlet
- 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

- Valve size and configuration
- Type and voltage of coil
- Maximum working pressure
- Flow medium
- Port configuration
- Operating and storage temperature ranges
- Certification and QA requirements

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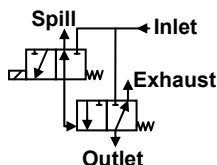
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Solenoid Valves Piloted

MV3 (6mm 3 port)

Specification

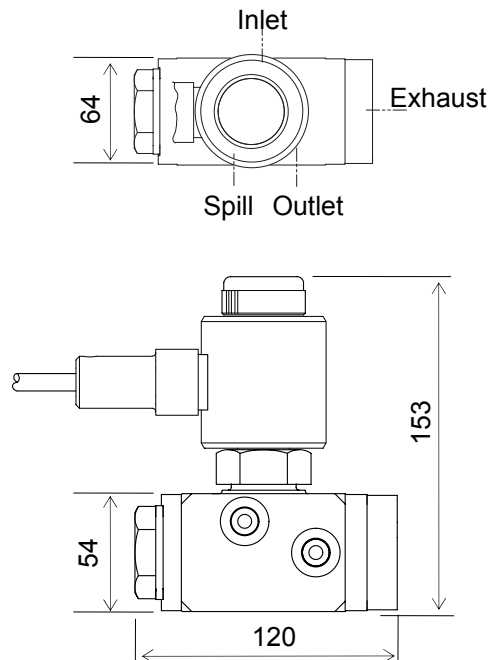
- Working Pressure Range: 10 to 276bar (150 to 4000psi)
- Nominal Bore 6mm (1/4")
- Inlet, outlet, exhaust & spill ports: G1/4 female
- Configuration: 3 port



- Flow factor (Cv): 0.7
- Materials: Body – Aluminium Alloy, Seats – Nylatron, Valve – Stainless Steel, O rings - Nitrile
- Weight: approx. 2.2kg

Typical Dimensions

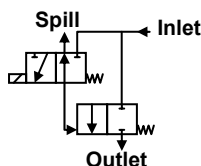
in mm except where shown otherwise



MV21 (12mm 2 port NC)

Specification

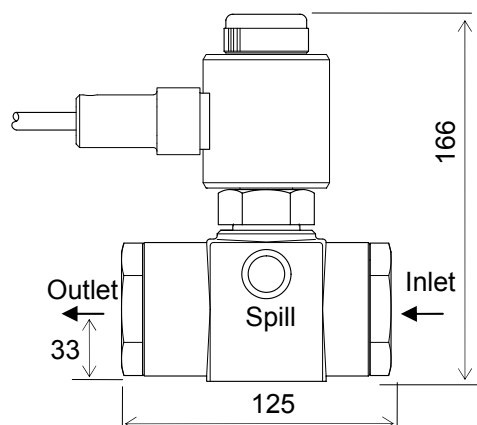
- Working Pressure Range: 10 to 276bar (150 to 4000psi)
- Nominal Bore 12mm (1/2")
- Inlet & outlet ports: G1/2 female
- Spill port: G1/4 female
- Configuration: 2 port NC



- Flow factor (Cv): 2.9
- Materials: Body – Aluminium Alloy, Seats – Nylon & PEEK, Valve – Stainless Steel, O rings - Nitrile
- Weight: approx. 2.3kg

Typical Dimensions

in mm except where shown otherwise



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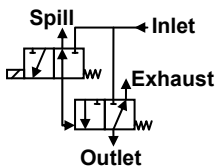
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Solenoid Valves Piloted

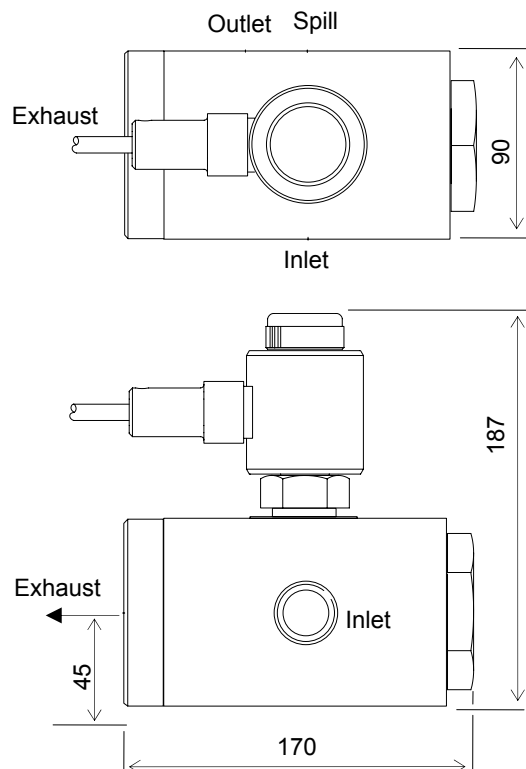
MV11 (12mm 3 port)

Specification

- Working Pressure Range: 10 to 276bar (150 to 4000psi)
 - Nominal Bore 12mm (1/2")
 - Inlet, outlet & exhaust ports: G1/2 female
 - Spill port: G1/4 female
 - Configuration: 3 port
- 
- Flow factor (Cv): 2.5
 - Materials: Body – Aluminium Alloy, Seats – Nylatron, Valve – Stainless Steel, O rings - Nitrile
 - Weight: approx. 4.5kg

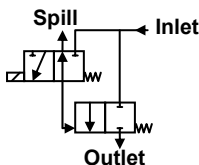
Typical Dimensions

in mm except where shown otherwise



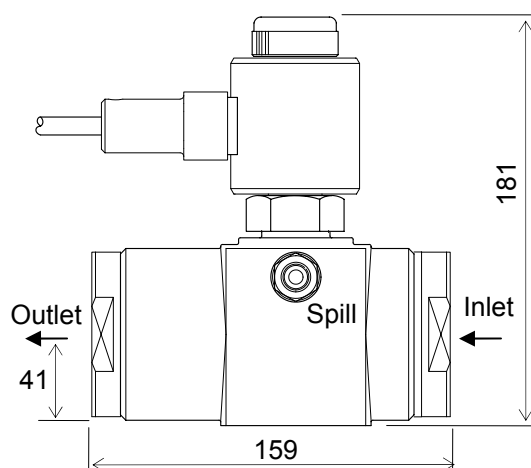
MV22 (25mm 2 port NC)

Specification

- Working Pressure Range: 10 to 276bar (150 to 4000psi)
 - Nominal Bore 25mm (1")
 - Inlet & outlet ports: G1 female
 - Spill port: G1/4 female
 - Configuration: 2 port NC
- 
- Flow factor (Cv): 11.9
 - Materials: Body – Aluminium Alloy, Seats – Nylon & PEEK, Valve – Stainless Steel, O rings - Nitrile
 - Weight: approx. 3.6kg

Typical Dimensions

in mm except where shown otherwise



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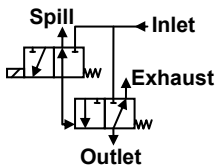
Excellence in Pressure & Flow Control

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Solenoid Valves Piloted

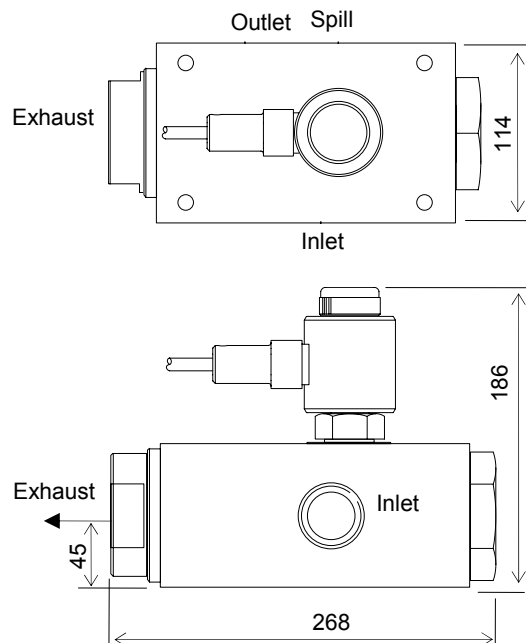
MV4 (25mm 3 port)

Specification

- Working Pressure Range: 10 to 276bar (150 to 4000psi)
 - Nominal Bore 25mm (1")
 - Inlet, outlet & exhaust ports: G1 female
 - Spill port: G1/4 female
 - Configuration: 3 port
- 
- Flow factor (Cv): 7.0
 - Materials: Body – Aluminium Alloy, Seats – Nylatron, Valve – Stainless Steel, O rings - Nitrile
 - Weight: approx. 6.8kg

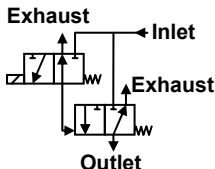
Typical Dimensions

in mm except where shown otherwise



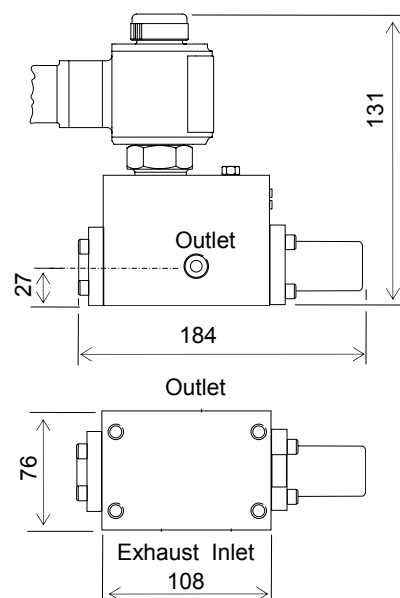
MV115 (8mm 3 port High Pressure for Offshore use)

Specification

- Working Pressure Range: 54 to 700bar (780 to 10000psi)
 - Nominal Bore 8mm (5/16")
 - Inlet, outlet & exhaust ports: 3/8 NPT female
 - Configuration: 3 port
- 
- Flow factor (Cv): 1.0
 - Materials: Body – 316 Stainless Steel, Seats – PTFE, Valve – Stainless Steel, O rings - Nitrile
 - Weight: approx. 8.2kg

Typical Dimensions

in mm except where shown otherwise



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Solenoid Valves Miniature

Description

Miniature solenoid valves are normally closed, two-way (i.e. two-position) with spring return.

The valves are suitable for use with gases or liquids where tight shut-off is required in small-bore, low-flow, high-pressure lines.

A stainless steel wire mesh filter may be fitted in the inlet.

The inlet pressure acts to hold the valve closed so the valve is not bi-directional. The standard coil is rated to open the valve at maximum working pressure. Coils with lower power consumption are available for operation at lower working pressures.

The solenoid is isolated from the process flow. The coil unit may be an industrial type or a rugged, water resistant type.

The coil may be rotated on the valve body to allow the cable outlet to point in any direction.

A manifold mounted version of the valve is available. We can supply manifolds to your requirements with the valves installed.



Standard Specification

See next page for specification of individual types

- Temperature range: -20 to +50°C (extended temperature range versions can be supplied)

Materials

- The standard materials are listed for each type. Alternative materials can be supplied
- Suitable combinations of materials can be supplied for various applications such as marine or petrochemical (NACE).

Options

Please contact us for details

- Ports: alternative port configuration can be supplied
- Various coil voltages are available

Ordering Information

Please supply the following information when ordering

- Valve size
- Type and voltage of coil
- Maximum working pressure
- Flow medium
- Port configuration
- Operating and storage temperature ranges
- Certification and QA requirements

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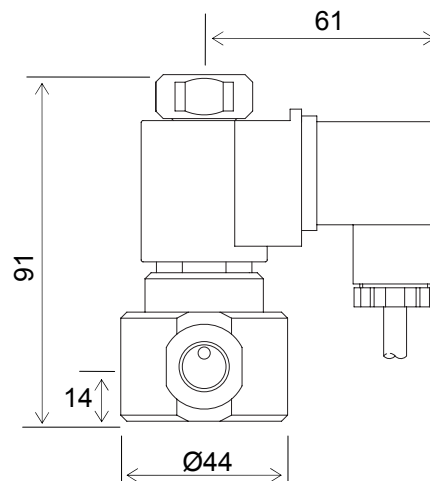
MV160 - Standard

Typical Dimensions

in mm except where
shown otherwise

Specification

- Maximum Working Pressure: 300bar (4350psi), 100bar (1450psi) with Hastelloy wetted parts
- Nominal Bore 0.8mm
- Inlet & outlet ports: G1/4 female
- Coil: 24VDC 18W or 115VAC 15W
- Electrical connection: DIN 43650-A
- Protection: IP65
- Materials: Body – Nickel Aluminium Bronze, 316 Stainless Steel or Hastelloy, Seal – Nylon or PCTFE, Magnetic parts – 430 Stainless Steel, O rings - Nitrile or Chemraz
- Weight: approx. 0.6kg



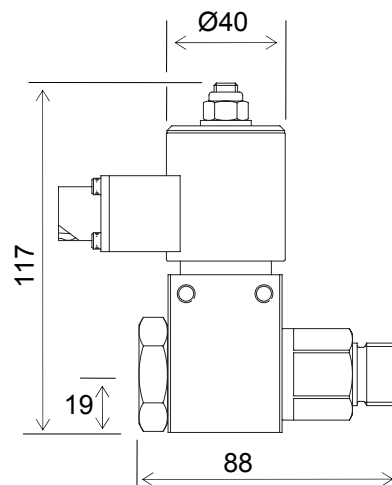
MV160 - Banjo Bolt & Rugged Coil

Typical Dimensions

in mm except where
shown otherwise

Specification

- Maximum Working Pressure: 100bar (1450psi)
- Nominal Bore 0.8mm
- Inlet port: G1/4 female
- Outlet port: G1/2 male
- Coil: 24VDC 9W
- Electrical connection: 10SL-4
- Protection: IP67
- Materials: Body – Nickel Aluminium Bronze, Seal – Nylon, Magnetic parts – 430 Stainless Steel, O rings - Nitrile
- Weight: approx. 1.2kg



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Solenoid Valves Miniature

MV160 Manifold - Typical Configuration

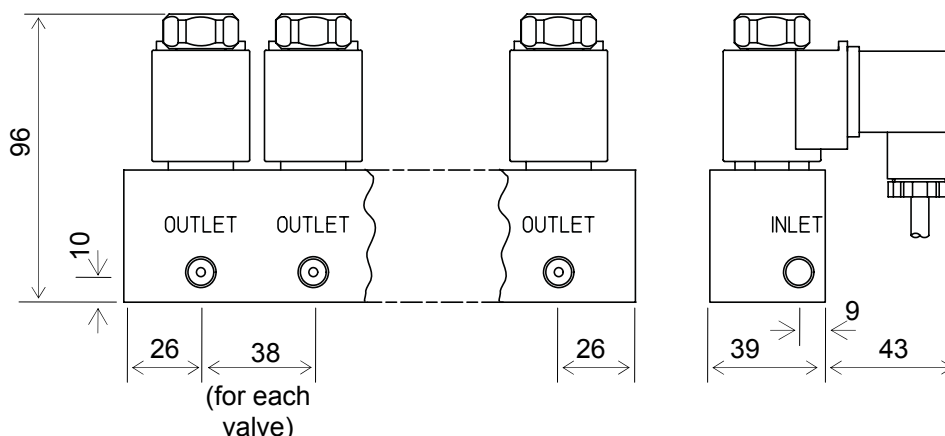
Specification

The modular design of the manifold can accommodate any number of valves. Other devices, such as pressure transducers or relief valves, can be fitted if required.

- Maximum Working Pressure: 100bar (1450psi)
- Nominal Bore 0.8mm (valves), 7mm (supply gallery)
- Ports: 1/8NPT female
- Coil: 24VDC 18W or 115VAC 15W
- Electrical connection: DIN 43650-A
Protection: IP65
- Materials: Manifold Block - 316 Stainless Steel, Seal – Nylon, Magnetic parts – 430 Stainless Steel, O rings - Nitrile

Typical Dimensions

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Description

A standard range of coils is used for our direct acting and piloted solenoid valves. The valves are described in separate data sheets.

The coils are not offered as separate items and are only supplied with a valve or as a spare part.

There are two power ratings: the standard power rating is used for most direct acting and all piloted valves; the high power rating is used on direct acting valves that need more thrust to overcome pressure or friction loads. Both types are available in a variety of voltages. The standard range is DC but AC coils can be provided. The coils are continuously rated.

A common interface is used so, for a particular power rating, an industrial type or a rugged, water resistant type may be fitted. Coils suitable for explosive atmospheres are available for the standard power rating.

Various cable outlets are available and cable can be provided.

Manual overrides can be fitted.



Standard Specification

See next page for specification of individual types

- Temperature range: -20 to +70°C (extended temperature range versions can be supplied)

Materials

- The coil housing and plunger are made of steel with suitable magnetic properties

Options

Please contact us for details

- Various coil voltages are available
- Various cable entry options are available
- AC coils
- Diodes and/or suppressors
- Certification: variants are available approved for ATEX service

Ordering Information

Coils are provided with solenoid valves. Please include the following information when ordering a valve.

- Voltage
- Industrial, Rugged or Explosive Atmosphere
- Manual Override (please state type)
- Cable entry
- Cable (please state type and length)
- Operating and storage temperature ranges
- Certification and QA requirements

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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

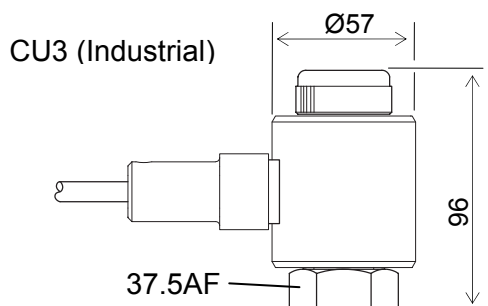
CU3, CU300 (Standard Power)

Electrical Characteristics

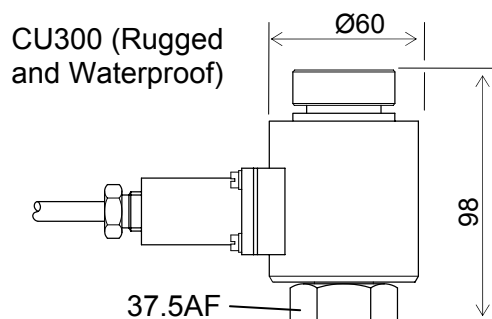
	Nominal pull-in force 156N (35lb)					
Nominal Voltage:	12V DC	24V DC	50V DC	110V DC	230V DC	440V DC
Voltage Range:	10 to 14	18 to 30	45 to 55	90 to 120	210 to 230	400 to 440
Number of turns:	1550	2500	5500	11850	24000	49300
Nominal Resistance:	11.5Ω	48Ω	163Ω	850Ω	3.3kΩ	17.5kΩ
Current Consumption (at nominal voltage):	1.05A	500mA	300mA	130mA	66mA	27mA

Typical Dimensions

in mm except where shown otherwise



Attachment Thread: G1 (1" BSP)



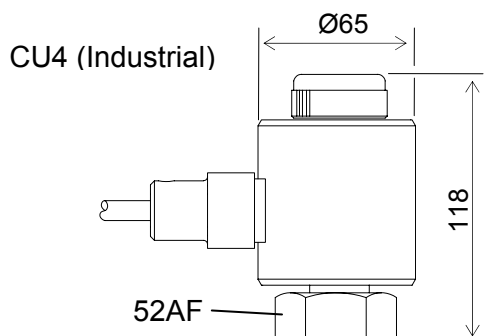
CU4, CU400 (High Power)

Electrical Characteristics

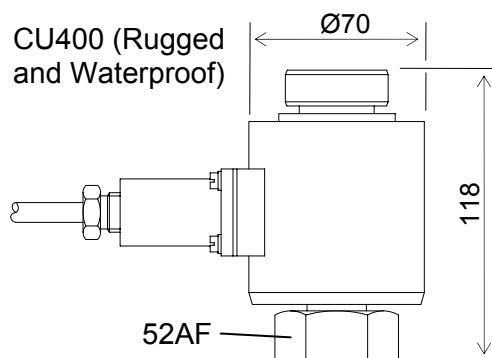
	Nominal pull-in force 222N (50lb)					
Nominal Voltage:	12V DC	24V DC	50V DC	110V DC	230V DC	440V DC
Voltage Range:	10 to 14	18 to 30	45 to 55	90 to 120	210 to 230	400 to 440
Number of turns:	1180	2220	5000	10200	19700	37000
Nominal Resistance:	6.5Ω	25Ω	115Ω	545Ω	2.5kΩ	8kΩ
Current Consumption (at nominal voltage):	1.85A	1.0A	440mA	210mA	100mA	54mA

Typical Dimensions

in mm except where shown otherwise



Attachment Thread: G1 1/4 (1 1/4" BSP)



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CU600, CU601 Explosive Atmospheres

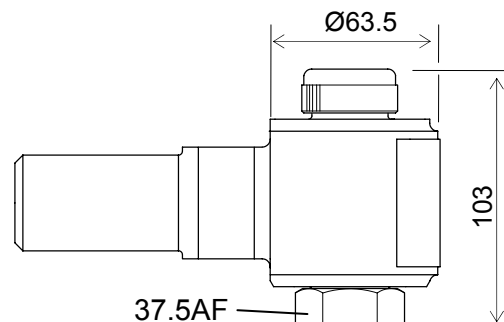
Typical Dimensions

in mm except where shown otherwise

Specification

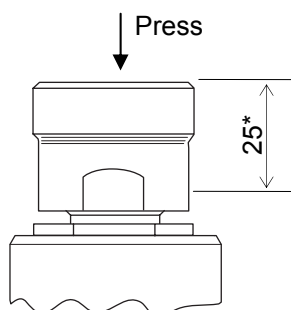
CU600 is certified for use in potentially explosive gas atmospheres.

- Electrical characteristics: same as CU3, CU300
- Attachment Thread: G1 (1" BSP)
- ATEX Category 2, Group II, Gas for 24V DC
- BASEEFA Zone 1 for 24, 110 and 230V DC

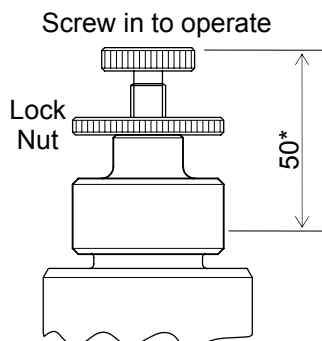


Manual Override

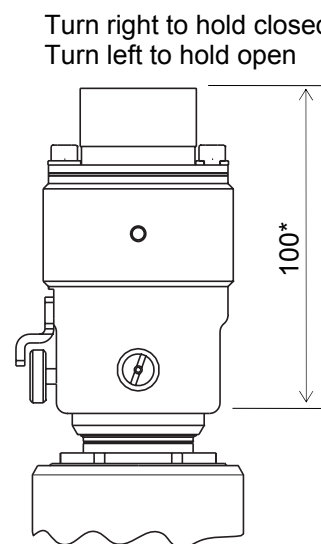
Manual Overrides are available as an option on all coils



Waterproof momentary press
button



Locking



Hold open and closed

* Approximate extra length compared to coil without override

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A **CIRCOR** International, Inc. Company

Non-Return Valves



Non-Return Valves

NR & NRS Non-Return Valves

We design, machine, build and test all our products on one site in Uxbridge. If you don't see what you want in our standard ranges, contact us and we'll do our best to meet your needs.

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NRS & NR series High-Pressure Non-Return Valve

Description

NRS and NR are ranges of spring-loaded, non-return or check valves. They are suitable for use with gases or liquids to prevent reverse flow in high-pressure lines.

The NRS range is sealed by an elastomer O ring. The NR range is hard seated.

The main closing force is provided by the process pressure. The spring ensures that the valve will close at any orientation.

The internal design of the valve ensures that there is minimal restriction to flow.



Standard Specification

See next page for specification of individual types

- Temperature range: -20 to +70°C (extended temperature range versions can be supplied)

Standard Materials

Alternative materials can be supplied

- Body: Nickel Aluminium Bronze, Brass, Monel or Inconel
- Spindle: Stainless Steel or Phosphor Bronze
- O rings: Nitrile, Viton or EPDM
- Hard seat: Copper

Options

Please contact us for details

- Ports: alternative port configurations can be supplied. Ports may be male or female or a combination of the two.
- Materials: suitable combinations of materials can be supplied for various applications such as Oxygen service or marine.
- 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

- Valve size
- Lift pressure
- Maximum working pressure
- Flow medium
- Port configuration
- Operating and storage temperature ranges
- Certification and QA requirements

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NRS & NR series High-Pressure Non-Return Valve

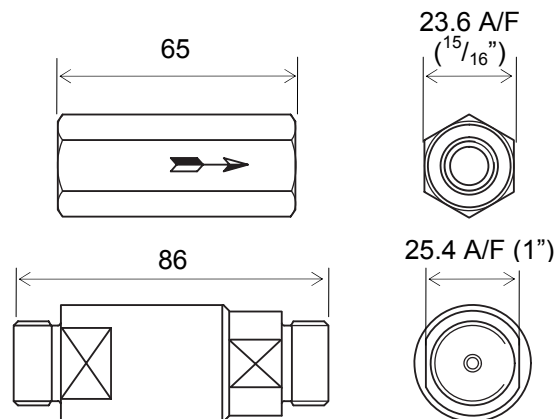
NRS1 (6mm soft seat)

Specification

- Nominal Bore 6 mm (1/4")
- Maximum working pressure 414 bar (6000 psi)
- Lift pressure 0.38 bar (5.5 psi)
- Flow factor (Cv) 0.9
- Weight: less than 0.2 kg
- Inlet & outlet Ports G1/4 female (upper drawing)
Alternative ports can be supplied. Note that alternative port configurations may affect the overall dimensions)

Typical Dimensions

in mm except where shown otherwise



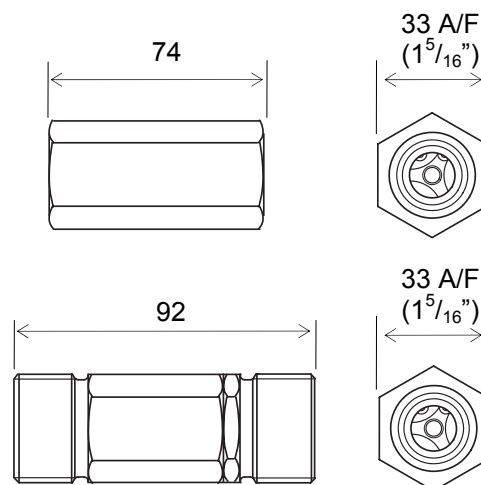
NRS38 (9mm soft seat)

Specification

- Nominal Bore 9 mm (3/8")
- Maximum working pressure 414 bar (6000 psi)
- Lift pressure 0.38 bar (5.5 psi)
- Flow factor (Cv) 1.5
- Weight: less than 0.2 kg
- Inlet & outlet Ports G1/2 female (upper drawing)
Alternative ports can be supplied. Note that alternative port configurations may affect the overall dimensions)

Typical Dimensions

in mm except where shown otherwise



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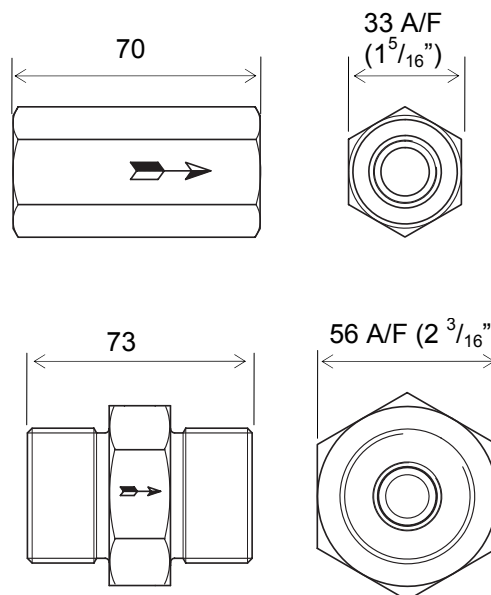
NRS2 (12mm soft seat)

Typical Dimensions

in mm except where
shown otherwise

Specification

- Nominal Bore 12 mm (1/2")
- Maximum working pressure 414 bar (6000 psi)
- Lift pressure 0.18 bar (2.5 psi)
- Flow factor (Cv) 2.9
- Weight: less than 0.4 kg
- Inlet & outlet Ports G1/2 female (upper drawing)
Alternative ports can be supplied. Note that
alternative port configurations may affect the
overall dimensions)



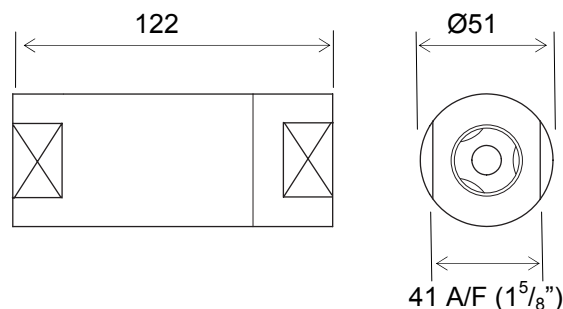
NR81 (12mm hard seat)

Typical Dimensions

in mm except where
shown otherwise

Specification

- Nominal Bore 12 mm (1/2")
- Maximum working pressure 400 bar (5800 psi)
- Lift pressure 1 bar (7 psi)
- Weight: less than 1.5 kg
- Inlet & outlet Ports G5/8 female (alternative ports
can be supplied. Note that alternative port
configurations may affect the overall dimensions)



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NRS & NR series High-Pressure Non-Return Valve

NR83

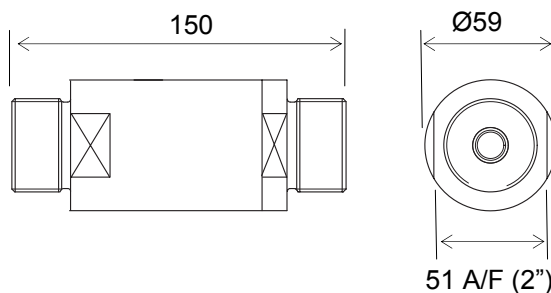
(16mm hard seat, High pressure)

Specification

- Nominal Bore 16 mm (5/8")
- Maximum working pressure 400 bar (5800 psi)
- Lift pressure 0.3 bar (4 psi)
- Weight: less than 2.2 kg
- Inlet & outlet Ports G1 1/4 male (alternative ports can be supplied. Note that alternative port configurations may affect the overall dimensions)

Typical Dimensions

in mm except where shown otherwise



NR84

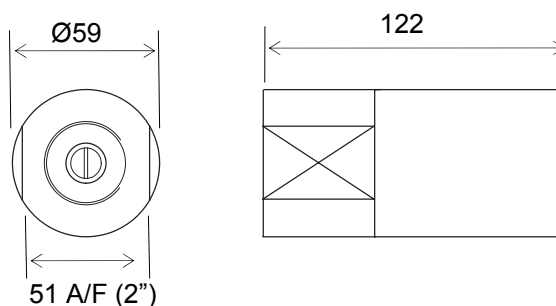
(16mm hard seat, low pressure)

Specification

- Nominal Bore 16 mm (5/8")
- Maximum working pressure 285 bar (4140 psi)
- Lift pressure 0.3 bar (4 psi)
- Weight: less than 1.8 kg
- Inlet port G1 female, Outlet port 1 1/2-12UNF female (alternative ports can be supplied. Note that alternative port configurations may affect the overall dimensions)

Typical Dimensions

in mm except where shown otherwise



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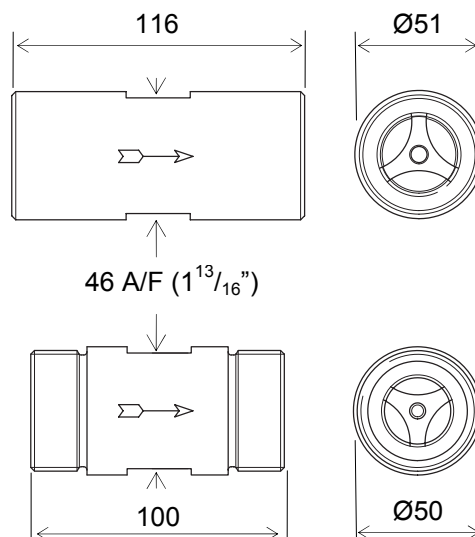
NRS3 (19mm soft seat)

Specification

- Nominal Bore 19 mm (3/4")
- Maximum working pressure 250 bar (3625 psi)
- Lift pressure 0.28 bar (4 psi)
- Weight: less than 1.3 kg
- Inlet & outlet Ports G3/4 female (upper drawing)
Alternative ports can be supplied. Note that alternative port configurations may affect the overall dimensions)

Typical Dimensions

in mm except where shown otherwise



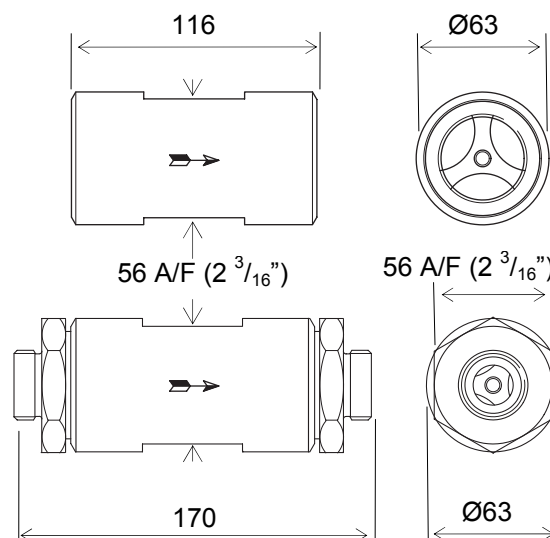
NRS4 (25mm soft seat)

Specification

- Nominal Bore 25 mm (1")
- Maximum working pressure 276 bar (4000 psi)
- Lift pressure 0.2 bar (3 psi)
- Flow factor (Cv) 8
- Weight: less than 1.5 kg
- Inlet & outlet Ports G1 1/4 female (upper drawing)
Alternative ports can be supplied. Note that alternative port configurations may affect the overall dimensions)

Typical Dimensions

in mm except where shown otherwise



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HALE HAMILTON®
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Filters



Filters

F100 Series Filters

We design, machine, build and test all our products on one site in Uxbridge. If you don't see what you want in our standard ranges, contact us and we'll do our best to meet your needs.

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F100 series High-Pressure Filter

Description

F100 is a range of filters for use with gases or liquids in high-pressure systems.

The filter element is either sintered bronze or stainless steel wire wound on a brass former. The filter element can be removed. The wire wound types can be cleaned but we recommend that the sintered types are always replaced.

The internal design of the filter ensures that there is minimal restriction to flow.

Bodies may be in-line or "Y" shaped. In the "Y" types, the filter element can be removed without disconnecting the filter.

A range of filtration sizes is available for each body.



Standard Specification

See next page for specification of individual types

- Temperature range: -20 to +70°C (extended temperature range versions can be supplied)
- Filtration level: 2.5, 5, 12.5, 25 or 37.5 micron (sintered bronze element) 20 or 40 micron (wire wound element)
- Other filtration levels are available

Standard Materials

Alternative materials can be supplied

- Body: Nickel Aluminium Bronze, Brass, Aluminium alloy, Mild Steel or Stainless Steel
- Filter element: Sintered Bronze or Stainless Steel wire wound on a Brass former
- Seals: Nitrile, Viton or EPDM

Options

Please contact us for details

- Ports: alternative port configurations can be supplied. Ports may be male or female or a combination of the two.
- Materials: suitable combinations of materials can be supplied for various applications such as Oxygen service or marine.
- 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

- Nominal Bore
- Body Configuration
- Filtration level
- Maximum working pressure
- Flow medium
- Port configuration
- Operating and storage temperature ranges
- Certification and QA requirements

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F100 series High-Pressure Filter

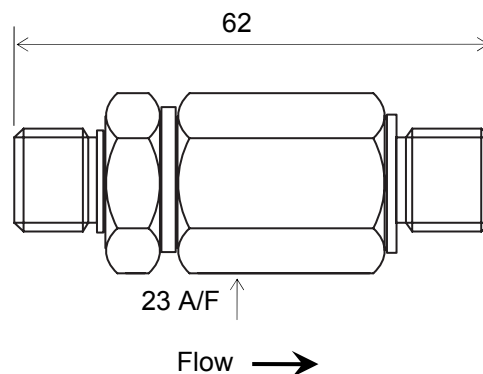
F102 (5mm in-line)

Typical Dimensions

in mm except
where shown
otherwise

Specification

- Nominal Bore: 5 mm (3/16")
- Maximum working pressure: 245 bar (3500 psi)
- Weight: less than 0.1 kg (Aluminium body)
- Element flow area:
 - 20 micron 0.11 cm²
 - 40 micron 0.22 cm²
- Inlet & outlet Ports G1/4 male (alternative ports can be supplied. Note that alternative port configurations may affect the overall dimensions)



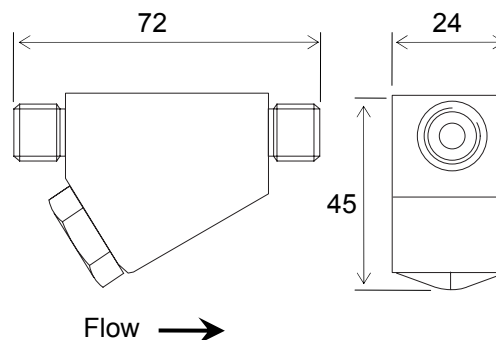
F126 (5mm "Y")

Typical Dimensions

in mm except
where shown
otherwise

Specification

- Nominal Bore: 5 mm (3/16")
- Maximum working pressure: 276 bar (4000 psi)
- Weight: less than 0.2 kg (Aluminium body)
- Element flow area:
 - 20 micron 0.11 cm²
 - 40 micron 0.22 cm²
- Inlet & outlet Ports G1/4 male (alternative ports can be supplied. Note that alternative port configurations may affect the overall dimensions)



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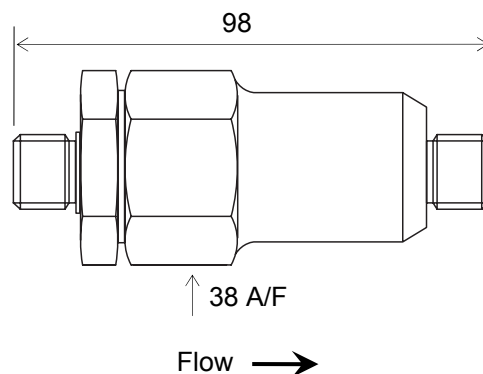
F106 (5.6mm in-line)

Typical Dimensions

in mm except
where shown
otherwise

Specification

- Nominal Bore: 5.6 mm (7/32")
- Flow capacity (Cv): 0.7
- | | Steel Body | Al Body |
|--------------------------|-------------------|--------------------|
| Maximum working pressure | 414 bar (6000psi) | 310 bar (4500 psi) |
| Weight | <0.5 kg | <0.2 kg |
- Element flow area:
 - 20 micron 0.3 cm²
 - 40 micron 0.6 cm²
- Inlet & outlet Ports G1/4 male (alternative ports can be supplied. Note that alternative port configurations may affect the overall dimensions)



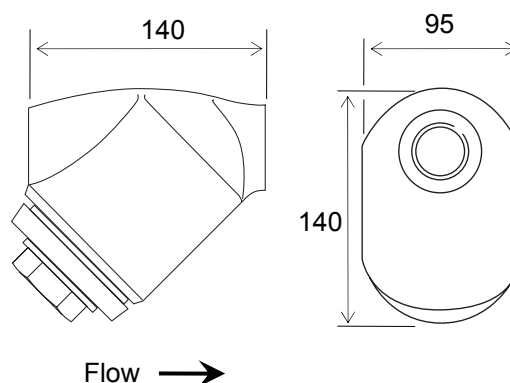
F103 (16mm "Y")

Typical Dimensions

in mm except
where shown
otherwise

Specification

- Nominal Bore: 16 mm (5/8")
- Maximum working pressure: 310 bar (4500 psi)
- Weight: less than 6.2 kg (mild steel body)
- Element flow area:
 - 20 micron 3 cm²
 - 40 micron 6 cm²
- Inlet & outlet Ports G1 female (alternative ports can be supplied. Note that alternative port configurations may affect the overall dimensions)



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F100 series High-Pressure Filter

F105 (19mm in-line)

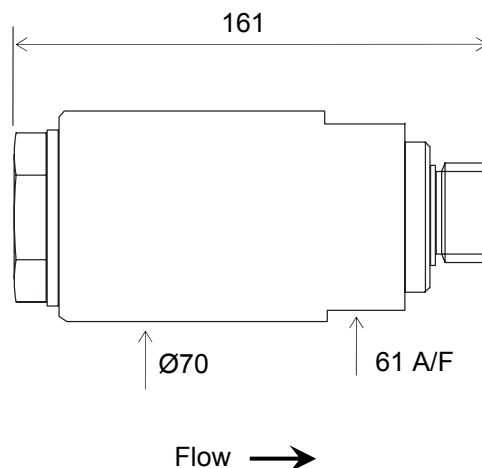
Typical Dimensions

in mm except
where shown
otherwise

Specification

- Nominal Bore: 19 mm (3/4")
- Flow capacity (Cv): 10
- | | Steel Body | Al Body |
|--------------------------|-----------------------|-----------------------|
| Maximum working pressure | 414 bar
(6000 psi) | 310 bar
(4500 psi) |
| Weight | <2.8 kg | <1.4 kg |
- Element flow area:

20 micron	3.2 cm ²
40 micron	6.5 cm ²
- Inlet Port G1 male, Outlet Port G3/4 female (alternative ports can be supplied. Note that alternative port configurations may affect the overall dimensions)



F108 (19mm in-line, low pressure)

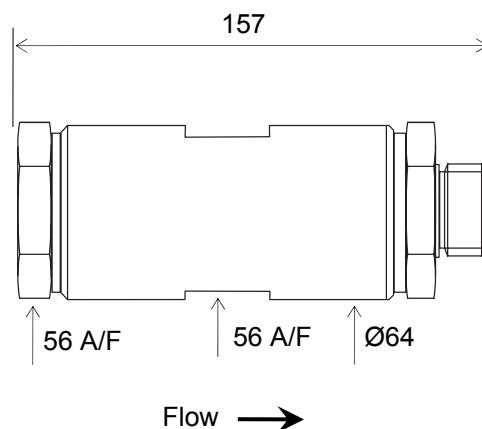
Typical Dimensions

in mm except
where shown
otherwise

Specification

- Nominal Bore: 19 mm (3/4")
- Flow capacity (Cv): 4.6
- Maximum working pressure: 69 bar (1000 psi)
- Weight: <1 kg (Aluminium body), <2 kg (Nickel Aluminium Bronze body)
- Element flow area:

20 micron	3.2 cm ²
40 micron	6.5 cm ²
- Inlet Port G3/4 female, Outlet Port G1 male (alternative ports can be supplied. Note that alternative port configurations may affect the overall dimensions)



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F100 series High-Pressure Filter

F107 (28mm in-line)

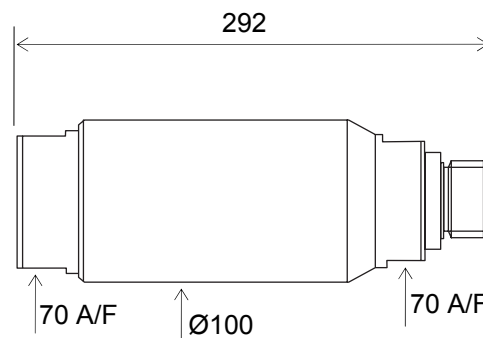
Specification

- Nominal Bore: 28 mm (1 1/8")
- Flow capacity (Cv): 25
- | | Steel Body | Al Body |
|--------------------------|--------------------|--------------------|
| Maximum working pressure | 414 bar (6000 psi) | 310 bar (4500 psi) |
| Weight | <9.6 kg | <3.9 kg |
- Element flow area:

20 micron	5.2 cm ²
40 micron	10.3 cm ²
- Inlet Port G1 1/2 female, Outlet Port G1 1/2 male (alternative ports can be supplied. Note that alternative port configurations may affect the overall dimensions)

Typical Dimensions

in mm except where shown otherwise



Flow →

F109 (38mm in-line, threaded)

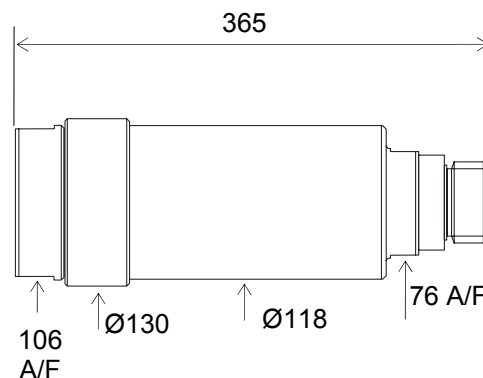
Specification

- Nominal Bore: 38 mm (1 1/2")
- Maximum working pressure: 310 bar (4500 psi)
- Weight: less than 18.2 kg (mild steel body)
- Element flow area:

20 micron	11.6 cm ²
40 micron	23.2 cm ²
- Inlet Port G2 female, Outlet Port G2 male (alternative ports can be supplied. Note that alternative port configurations may affect the overall dimensions)

Typical Dimensions

in mm except where shown otherwise



Flow →

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



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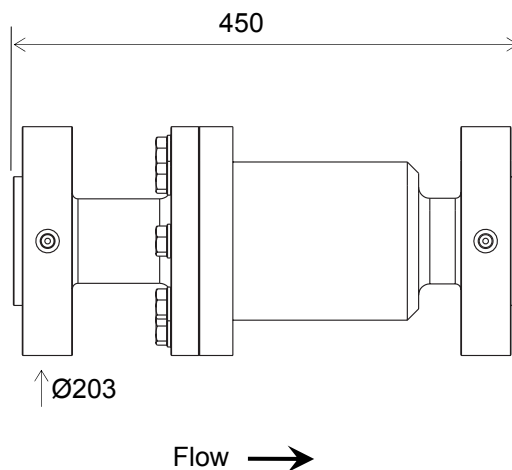
F109 Mk10 (38mm in-line, flanged)

Typical Dimensions

in mm except
where shown
otherwise

Specification

- Nominal Bore: 38 mm (1 1/2")
- Maximum working pressure: 400 bar (5800 psi)
- Weight: less than 52 kg (stainless steel body)
- Inlet & Outlet Ports: 1 1/2" NPS 2500 lb RTJ flange
- Instrument ports: G1/4



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