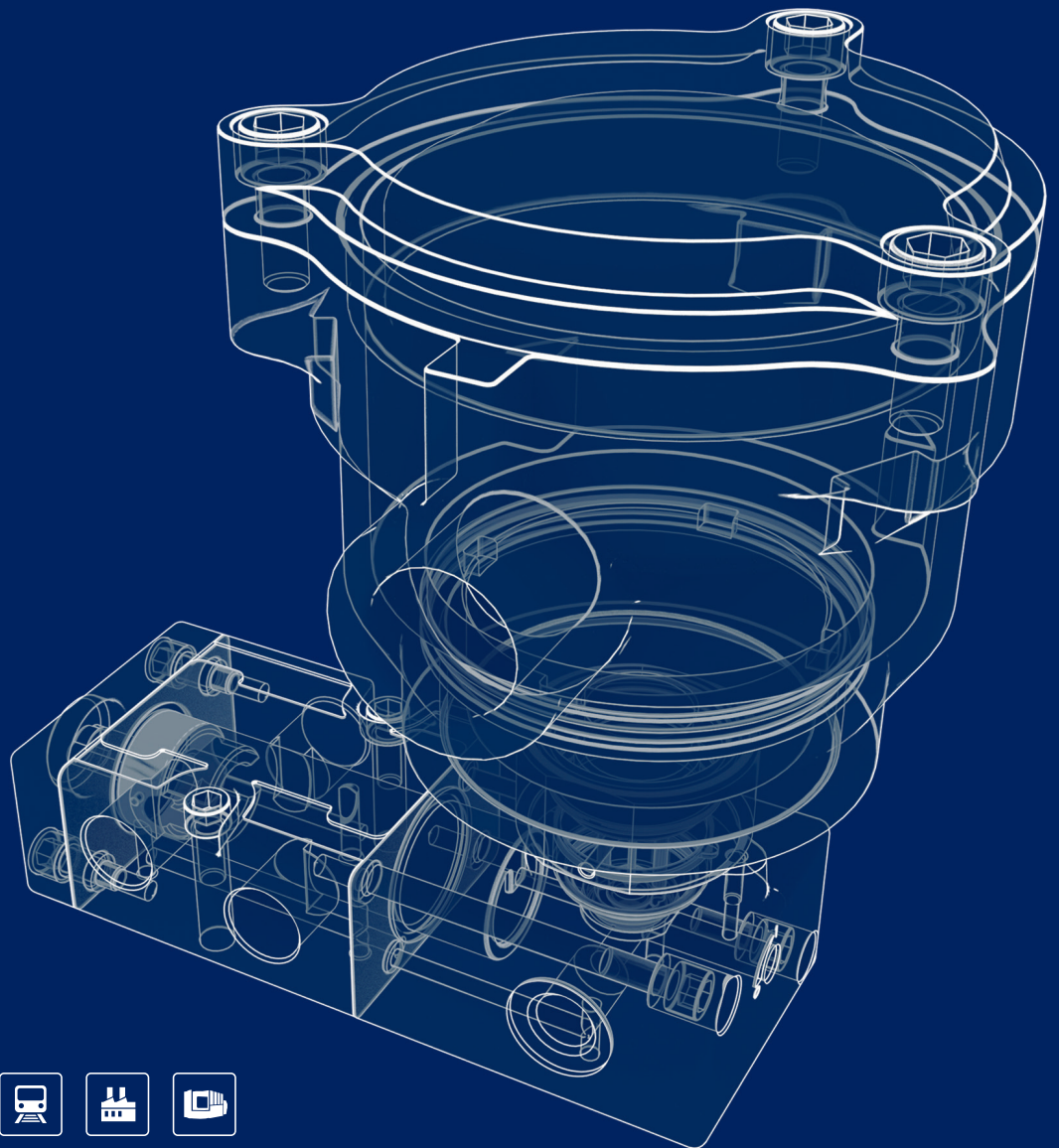


ONENESS

PRIMO FLO[®]

INTELLIGENT SOLUTIONS

EXPERT IN FLUID CONTROL





ONENESS

PRIMOFLU[®]

OUR SOLUTIONS FOR YOUR NEEDS

We provide expert solutions and proven products in fluid control application, with professional technologies, broad industry experience and innovation capabilities.

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STRIVING FOR EXCELLENCE MAKING THE BREAKTHROUGH

Scotland, UK - Headquarters

Headquartered in UK and has achieved rapid development through multiple acquisitions and restructuring. We have a R&D center in Glasgow, Scotland, focusing on the research and upgrading of products in the fields of hydrogen energy, petroleum, and chemicals to meet the growing needs of global customers. Can be traced back to 1987 when it was established as the valve division of Jansen BV Engineering in the Netherlands. Despite undergoing some acquisitions and restructuring in the past, we have always remained committed to innovation and quality, providing customers with excellent products and solutions.



Asia-Pacific Sales Center

In 2020, established the AP Business Centre in Singapore, and subsequently the AP Technology R&D Centre and a base for production in Shanghai, China. Has an experienced team of professionals specialising in fluid control technology R&D, product performance research and non-standard product design and production.





Scotland, UK
Headquarters



China SH

APTC, China Sales
& Operation Center



Singapore

Asia-Pacific
Sales Center



APTC China Sales & Operation Center

Established an IEC certified laboratory in China for verifying and testing of components and finished products. It can also provide inspection and testing services that meet the national standards for a third party.

Innovation and R&D

We take pride in its excellent foundation of product design and development. The constant innovation and improvement in our processes and techniques have pushed our low-power-high-flow technology to the forefront of the industry.

We have a core portfolio fluid process control products that are applicable to the petrochemical, fine chemicals, life sciences, food and industrial automation industries.

Pursuing excellence and exceeding customer expectations is our motto. We will continue to improve our systems and processes, promote technological innovation and provide the optimal results and satisfactions for our employees, suppliers, business partners and customers.

FLUID CONTROL SOLUTIONS

Manufacturing operations vary from plant to plant and there is no one-size-fits-all solution. Factories often modify their production operations internally for the optimisation of production lines. Once a problem occurs in the operation, the situation becomes quite tricky as the OEMs cannot provide meaningful support for a non-standard system. That is where we come in with our wealth of experience in customised solutions. We will evaluate your operations and provide tailored solutions according to your system characteristics.



Validity & Reliability Products

We offer high quality and reliable products and solutions and we are committed to continually improving our technologies and processes.



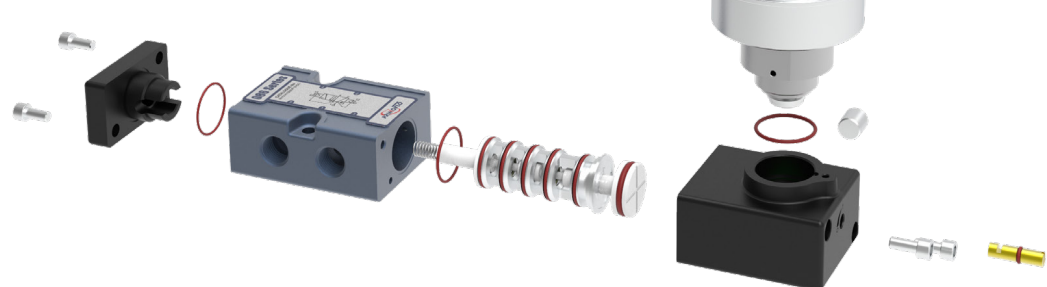
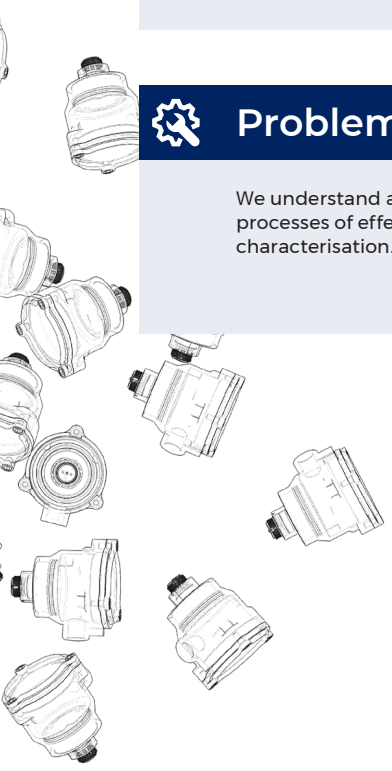
High Performance & Proven Products

We deliver high performance & proven products with highly integrated solutions to help improve operational efficiency and optimise production performance.



Problem Solving

We understand and identify your challenges, and help to solve them through processes of effective root cause analysis, material analysis and product characterisation.

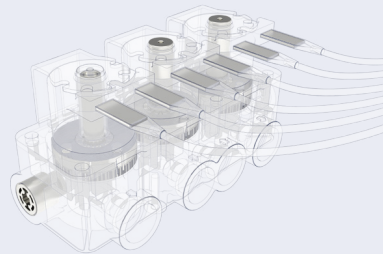


CUSTOMIZED ENGINEERING SOLUTIONS

Offer complete and intelligent customised products and solutions, from concept design and development to production. We can supply the fluid control products, solution designs and production services based on your specific application, environmental and engineering requirements. Our services include dedicated consultation, project management and technical resources. The excellent quality of our products will exceed your expectations.

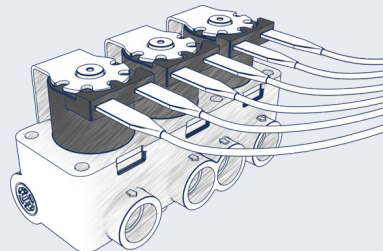
1 Concept Design

- Evaluate Concepts
- Industrial Design
- Structure / Thermal
- Stress / Mechanisms
- DFMEA
- Process Guides
- Specialized Materials



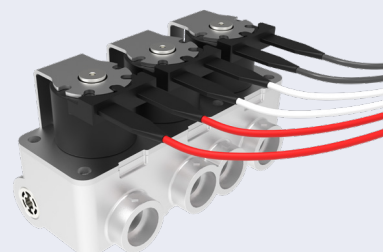
2 Prototype & Testing

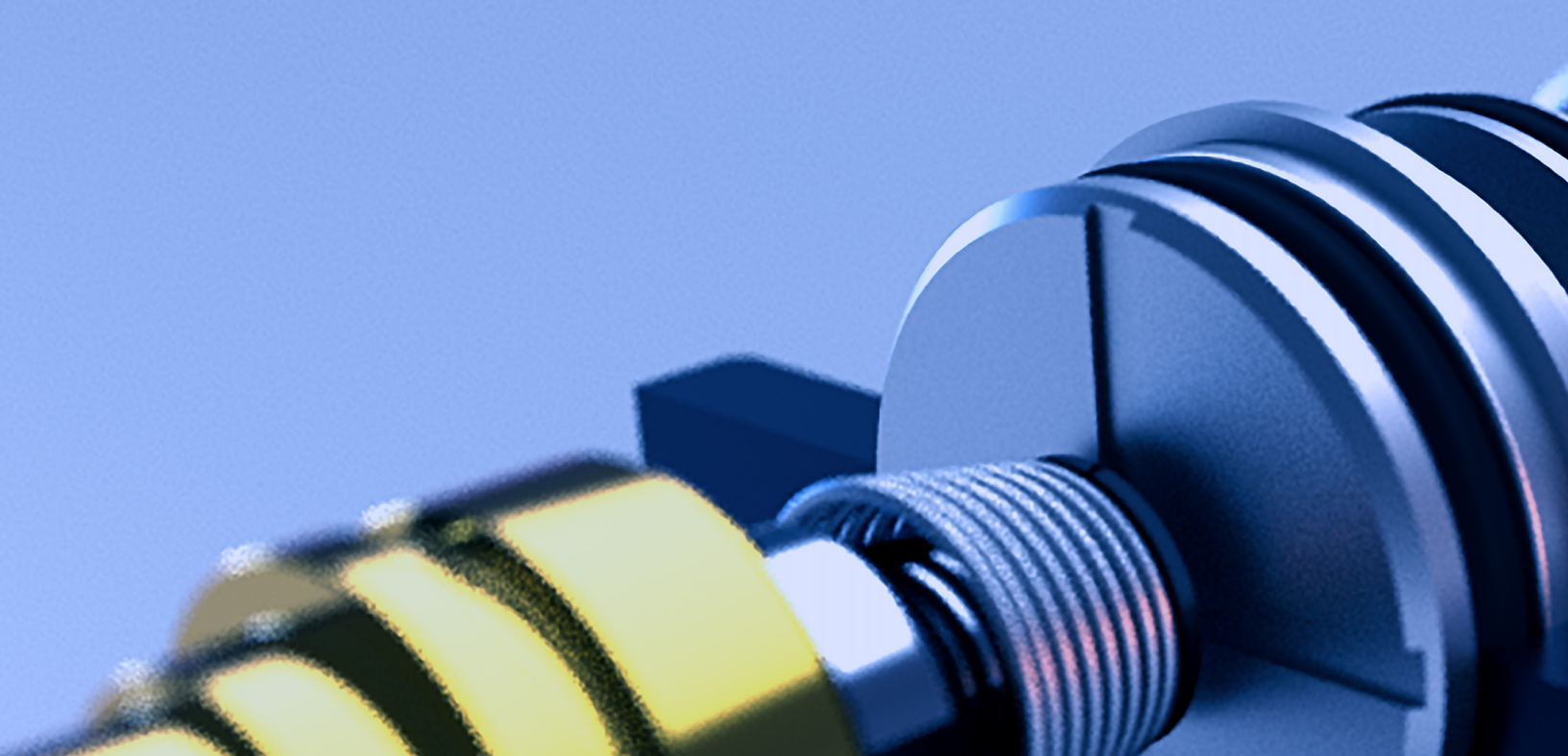
- Beta Unit
- Mechanism Mockup
- Qualification
- Rapid Prototypes



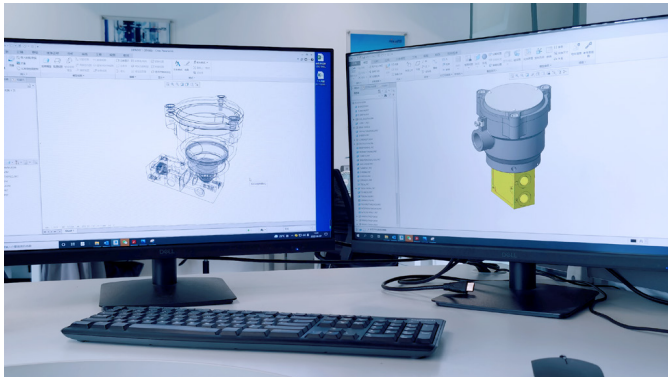
3 Pilot Run / Mass Production

- PFMEA
- Tooling
- Production
- Planning
- Supplier Chain
- Logistic





INTERNATIONAL R&D STANDARDS THAT MEETS GLOBAL DEMAND



UK Technology R&D Centre with world-class product development center and laboratories is located in Glasgow, Scotland, UK. Its operating procedures adhere to international standards and is certified for product verification by the industry. Furthermore, we engage in product innovation research and development to meet the diverse needs of a global clientele.

China technology R&D Center is able to respond quickly and accurately to the diverse needs and special customization requirements of various fields in the Chinese market. We can propose a draft feasible solution in the shortest time, and then provide a product concept solution of version 1.0 in the fastest time through 3D modeling, animation simulation, combined with the steps of manufacturing, materials, fixture design and professional knowledge of product structure and assembly. After detailed product specifications and data sheets, we can complete metal or plastic product prototype or functional module prototyping within 24 hours for product testing and evaluation.

Our R&D and innovations are rooted in product development and design. We strive to constantly improve our technical capabilities and innovative technologies to surpass conventional fluid control technologies and lead the industry in low-power-high-flow category.





STABLE AND RELIABLE WITH INGENUOUS FABRICATION

6S

Management System

100%

Factory Testing



ISO

System Certification

SIL3

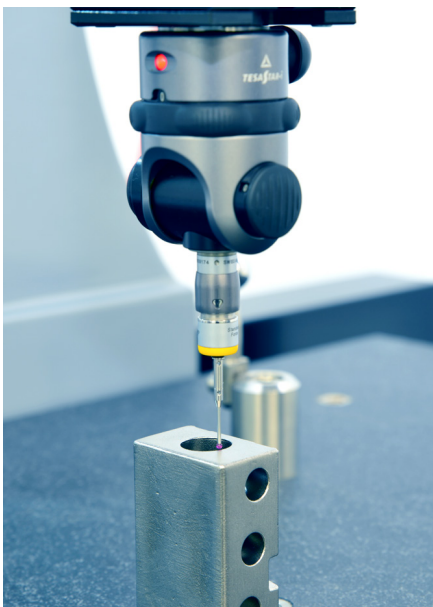
Functional Safety

CCC

Product Certification

IECEX

Product Certification



086 Series

PRIMOFTO



The Shanghai manufacturing plant adopts the 6S management model to coordinate all aspects of production, operation and maintenance. It focuses on the production of high-end solenoid valves, and have ultra-high-precision CNC machine tools, sub-assembly production lines, low-power product production lines, conventional production lines and an automatic testing system custom designed and developed by us that can conduct 100% product testing without human assistance to ensure the quality of parts and finished products.

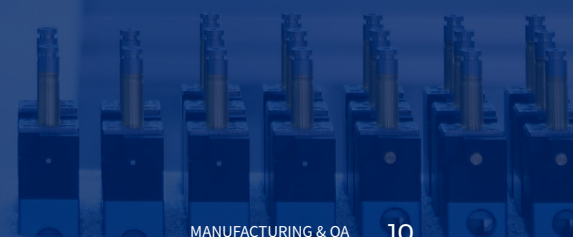
A strong management, operation and maintenance team carries out one-stop intelligent control of the while process from planning, production, inspection, testing to SOP management to comprehensively ensure the stability and reliability of the products.

We maintain strict control on the production requirements of key components used in the manufacturing of high-end solenoid valves. And parts acquired through the global supply chains such as coils, rubber parts, dynamic and static iron cores and springs must also comply with the strictly controlled requirements as to ensure the stability and reliability of the final product. Our core products have be awarded the SIL3 certification.

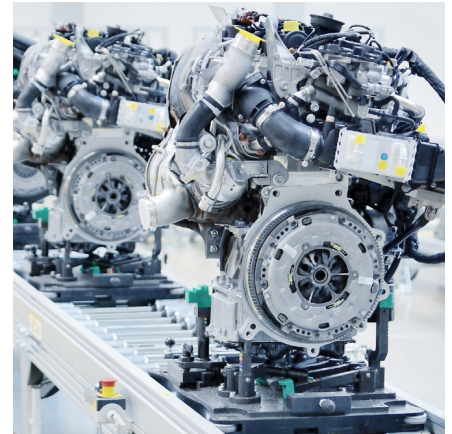
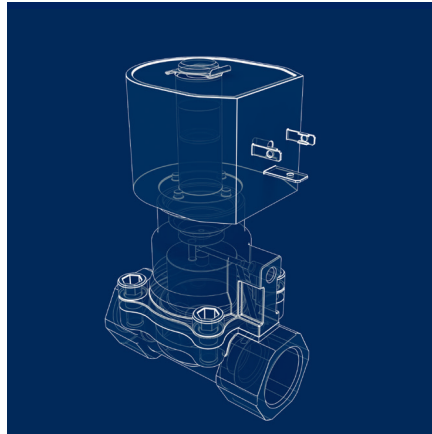
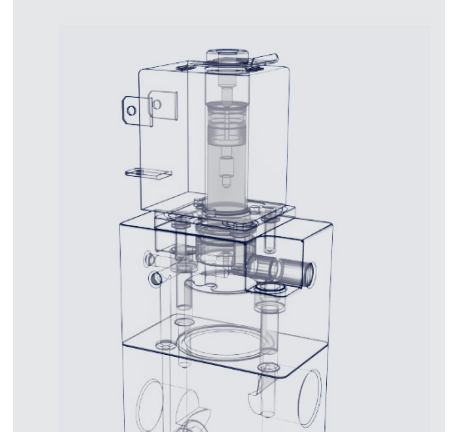
The Shanghai manufacturing plant has obtained a series of relevant certifications such as ISO14001 Environmental Management System, ISO45001 Occupational Health and Safety Management System and ISO9001 Quality Management System. And in strict accordance with these certification regulations, the whole process of product design, manufacturing and after-sales service is controlled.

We have the three-coordinates measuring machine, projector, profile meter, roughness meter, safety tester, spring tester, environmental test box and other advanced testing equipment, covering the verification and testing requirements of all parts and products.

Laboratories that meet IEC certification can test and verify components and finished products and provide inspection and testing services that meet the national standards for a third party.



INNOVATIVE SOLUTIONS TO SOLVE INDUSTRY CHALLENGES



Industrial Automation

Our expertise and technology in automation will help manufacturing plants improve their operational efficiency and optimise production.



Food and Beverage

Provide stable and reliable technology and products for the key processes of food and beverage production.



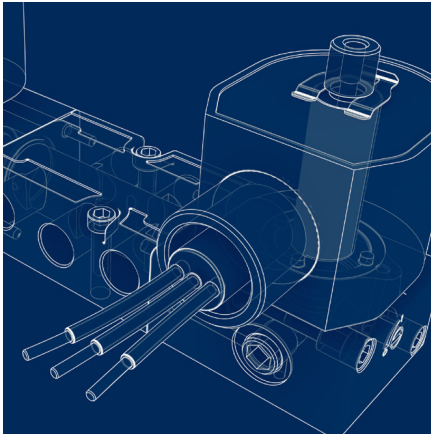
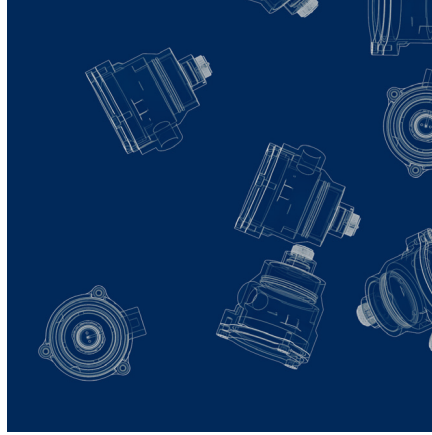
Commercial Vehicles

We help manufacturers increase efficiency and flexibility through high-performance products and technological innovation.



Life Science

We provide peace of mind with full lifecycle solutions for medical devices as well as diagnostic, analytical and biotechnology instruments.



Railway

Safe, reliable and durable products and technologies to meet the high specifications of railway applications.



Commercial Application

Continuous innovation of integrated service models to meet the development requirements of various high-efficiency systems, such as commercial kitchens and air-conditioning, heating and cooling systems, etc.



Energy, Chemical and Petrochemical

Maximise plant efficiency with safe, reliable and durable solutions for critical chemical and petrochemical applications.

FULL-FLEDGED FLUID CONTROL SOLUTIONS



Safety



Reliability



Low Power
Consumption



Design and manufacture a wide range of standard and custom fluid control solutions for use in both harmless and hazardous environments and solves engineering challenges of our clients around the world.



069 SERIES

PRIMO FLO 069 series valves is a universal direct-acting solenoid valves, designed for high flow piloting, requiring zero minimum operating pressure. Its balanced poppet construction permits high flows at minimum power levels. With its unique design and strong safety accreditation, it can withstand even the most demanding environments in the process, it is ideal for power plants, refineries, and chemical processing facilities. With the exceptional service life, it also as part of a broader offering of engineered solutions that includes actuator control packages, redundant control systems and bypass panels.



FEATURES AND BENEFITS

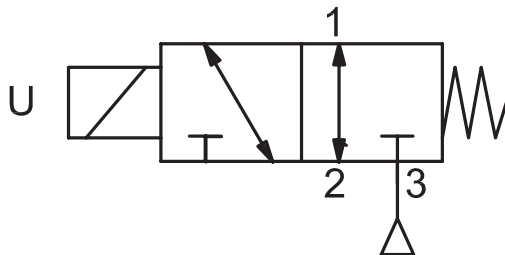
- The valves are certified according to IEC 61508 functional safety data and have SIL-3 capability (TÜV)
- Direct acting operated and balanced poppet design
- Explosion-proof operators DSC or DHC series coils special design with magnetic frame embedded
- Can be mounted in any position without affecting operation
- Excellent performance in low temperatures operation condition
- Wide pressure ranges and no minimum operating pressure required
- Manual-operator or Manual-reset are optional
- Double flow direction are available on request
- The explosion-proof DC coils are equipped with a built-in integrated surge protection device
- All valves are provided with a specific exhaust protector
- Coils have class H insulation material
- Meeting various international certifications: NEPSI, EAC, ATEX, IECEx

MATERIALS

MATERIALS IN CONTACT WITH FLUID	
BODY	Stainless steel / Aluminum
OPERATOR	Stainless steel / Aluminum
PLUNGER AND ARMATURE	Stainless steel
SPRING	Stainless steel
SHADING COIL	Copper
SEALING	NBR/FKM

Other materials on request.

FUNCTION



APPLICATIONS

- Actuation Control
- Redundant System
- Pneumatic Systems
- Safety Control
- Automation Control

For uncertain applications or hazardous operating conditions, please contact PRIMO FLO or supplier for technical support

GENERAL

ITEM	SINGLE COIL
PILOT CATEGORY	Direct Operated
MEDIA	Gas, Water, Light oil
AMBIENT TEMPERATURE RANGES	-40°C ~ +65°C
MEDIA TEMPERATURE	-40°C ~ +120°C
OPERATING PRESSURE DIFFERENTIAL	0 - 10 bar
FLOW COEFFICIENT	0.5 Kv m ³ /h (8.33 Kv l/min)
VALVE CONSTRUCTION	Balance Poppet
BODY MATERIAL	Stainless steel / Aluminum
APPLICATION ENVIRONMENT	Indoor / Outdoor
INSTALLATION	Any Position
PROTECTION CLASS	IP65/IP66/IP67
MANUAL OPERATOR	Optional

Functional Safety certification is not applicable with manual operator type.

ORDERING GUIDE

Available in repairing kits, accessories, please contact PRIMOFLO for more information.

069 Series Selection Guide:

		DHCS M - 069 N14 SS F MSO LP E * - 24VDC										
COIL CATEGORY	GSC	- GSC DIN connector (Non-Ex coil)										
	GHC	- GHC DIN connector (Non-Ex coil)										
	MSC	- MSC Ex Coil, Flying leads										
	MHC	- MHC Ex Coil, Flying leads										
	DSCA	- DSC Junction-Box Ex Coil, Aluminum										
	DSCS	- DSC Junction-Box Ex Coil, Stainless Steel										
	DHCA	- DHC Junction-Box Ex Coil, Aluminum										
	DHCS	- DHC Junction-Box Ex Coil, Stainless Steel										
	RSCA	- RSC Refined Chamber Ex Coil, Aluminum										
	RSCS	- RSC Refined Chamber Ex Coil, Stainless Steel										
CABLE ENTRY	Omit	- 1/2" NPT(Default)										
	M	- M20*1.5										
PRODUCT SERIES	069	- 069										
PORT SIZE	N14	- NPT 1/4"										
	G14	- G 1/4"										
	NMN14	- 1/4"Namur Interface/NPT Pipe Thread										
	NMG14	- 1/4"Namur Interface/G Pipe Thread										
BODY MATERIAL	SS	- Stainless Steel										
	AL	- Aluminum										
SEALING MATERIAL	Omit	- NBR(Default)										
	F	- FKM										
MANUAL OPERATOR	Omit	- W/O Manual-Operator or Manual-Reset (Default)										
	MSO	- With Screw Manual-Operator										
	MSR	- With Spring Return Manual-Operator										
	NPR	- With No Power Release Manual-Reset										
POWER CONSUMPTION	Omit	- 6W (Default)										
	BP	- 3.8W(GSC/DSC/RSC Only, Direct Current)										
	SP	- 2.5W (GHC/DHC/RHC only, Direct Current)										
	LP	- 1.8W (GHC/DHC/RHC only, Direct Current)										
	080	- 8W(The Rest Consumption Power by three digits, e.g. 080 as 8W) (Note)										
TECHNICAL REQUIREMENT	E	- Comply with ATEX/IEC (The certification system of the European)										
SPECIAL OPTIONS	*	- Special on Request										
VOLTAGE	24VDC 110VDC 24VAC 220VAC**											

Note: Any special requirement on others power consumption, please contact with PRIMOFLO.

*Special options are available upon the requirement.

**ATEX/IEC certified is only available for 24VDC, 220VAC.

ADDITIONAL OPTIONS

- The 069 Series is available with several types of manual operators and manual resets, including a Screw Manual Operator (MSO), Spring Return Manual Operator (MSR), No Power Release Manual Reset (NPR).
- Spare parts are available upon request, more information please contact PRIMOFLO or supplier.

SPECIFICATIONS

Pipe Size (ins.)	Orifice Size (mm)	Flow Coefficient Kv		Operating Pressure Differential (bar)		Media Temperature °C		Basic catalogue number
		(m³/h)	(l/min)	Min.	Max.	NBR	FKM	Single Coil
Universal								
1/4	6.9	0.50	8.33	0	10	-40 ~ +80	-20 ~ +120	069-*14

ELECTRICAL CHARACTERISTICS

Coil insulation class H

Standard voltages DC (=) 24V -110V; Allowable voltage variation -15%~+10%

AC (~) 24V-220V-230V; Other voltages are available on request

Coil Category	Power Ratings			Operator Ambient Temperature Range (°C)	Safety Code	Protection Class	Cable Entry
	24V/DC(W)	220V/AC(VA)					
		Inrush	Holding				
GSC	3.8/6	4.0	4.0	-40 ~ +65	EN60730	IP65*	EN175301-803A (ISO 4400)
GHC	1.8/2.5/6	4.0	4.0	-40 ~ +65	EN60730	IP65*	EN175301-803A (ISO 4400)
MSC	3.8/6	/	/	-40 ~ +40	Ex mb IIC T6 Gb Ex mb IIIC T85°C Db	IP65	Conduit 1/2" NPT
	3.8/6	/	/	-40 ~ +55	Ex mb IIC T5 Gb Ex mb IIIC T100°C Db	IP65	Conduit 1/2" NPT
	3.8/6	/	/	-40 ~ +65	Ex mb IIC T4 Gb Ex mb IIIC T135°C Db	IP65	Conduit 1/2" NPT
	/	4/6.5	4/6.5	-40 ~ +45	Ex mb IIC T5 Gb Ex mb IIIC T100°C Db	IP65	Conduit 1/2" NPT
	/	4/6.5	4/6.5	-40 ~ +65	Ex mb IIC T4 Gb Ex mb IIIC T135°C Db	IP65	Conduit 1/2" NPT
MHC	1.8	/	/	-40 ~ +60	Ex mb IIC T6 Gb Ex mb IIIC T85°C Db	IP66	Conduit 1/2" NPT
	1.8	/	/	-40 ~ +65	Ex mb IIC T5 Gb Ex mb IIIC T100°C Db	IP66	Conduit 1/2" NPT
	2.5	/	/	-40 ~ +55	Ex mb IIC T6 Gb Ex mb IIIC T85°C Db	IP66	Conduit 1/2" NPT
	2.5	/	/	-40 ~ +65	Ex mb IIC T5 Gb Ex mb IIIC T100°C Db	IP66	Conduit 1/2" NPT
	/	8.0	8.0	-40 ~ +45	Ex mb IIC T6 Gb Ex mb IIIC T85°C Db	IP66	Conduit 1/2" NPT
	/	8.0	8.0	-40 ~ +65	Ex mb IIC T5 Gb Ex mb IIIC T100°C Db	IP66	Conduit 1/2" NPT
DSC RSC	3.8/6	/	/	-40 ~ +45	Ex db IIC T6 Gb Ex tb IIIC T85°C Db	IP66/IP67	1/2"NPT or M20 X1.5
	3.8/6	/	/	-40 ~ +60	Ex db IIC T5 Gb Ex tb IIIC T100°C Db	IP66/IP67	1/2"NPT or M20 X1.5
	3.8/6	/	/	-40 ~ +65	Ex db IIC T4 Gb Ex tb IIIC T135°C Db	IP66/IP67	1/2"NPT or M20 X1.5
	/	4/6.5	4/6.5	-40 ~ +50	Ex db IIC T5 Gb Ex tb IIIC T100°C Db	IP66/IP67	1/2"NPT or M20 X1.5
	/	4/6.5	4/6.5	-40 ~ +65	Ex db IIC T4 Gb Ex tb IIIC T135°C Db	IP66/IP67	1/2"NPT or M20 X1.5
DHC RHC	1.8/2.5	/	/	-40 ~ +65	Ex db IIC T6 Gb Ex tb IIIC T85°C Db	IP66/IP67	1/2"NPT or M20 X1.5
	6	/	/	-40 ~ +60	Ex db IIC T6 Gb Ex tb IIIC T85°C Db	IP66/IP67	1/2"NPT or M20 X1.5
	6	/	/	-40 ~ +65	Ex db IIC T5 Gb Ex tb IIIC T100°C Db	IP66/IP67	1/2"NPT or M20 X1.5
	/	5.0	5.0	-40 ~ +50	Ex db IIC T6 Gb Ex tb IIIC T85°C Db	IP66/IP67	1/2"NPT or M20 X1.5
	/	5.0	5.0	-40 ~ +65	Ex db IIC T5 Gb Ex tb IIIC T100°C Db	IP66/IP67	1/2"NPT or M20 X1.5

The coils are supplied without cable gland

* GSC/GHC coils with electrical plug connector are required in protection class IP65.

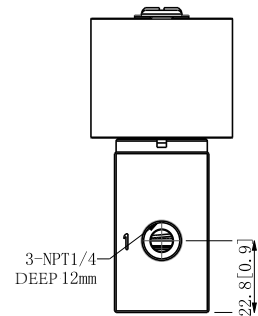
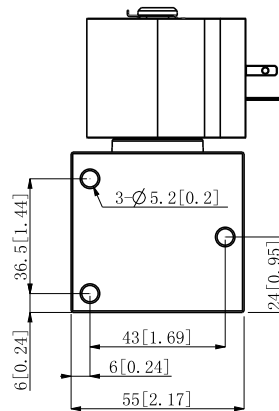
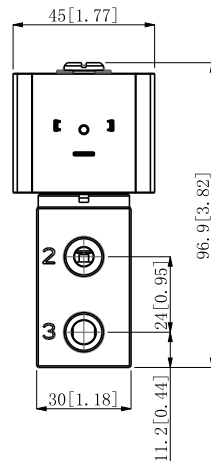
Other coil types are available on request.

DIMENSIONS: mm [inches]



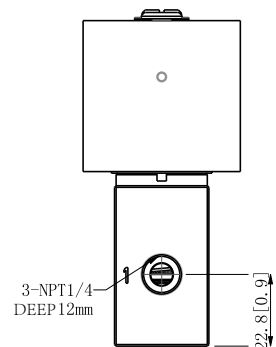
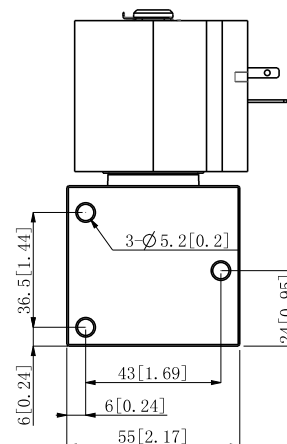
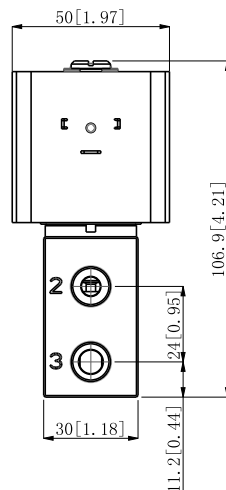
GSC/MSD Coil

Basic catalogue number :
GSC*-069*14



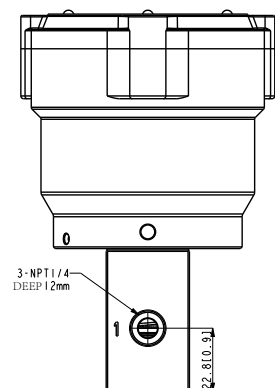
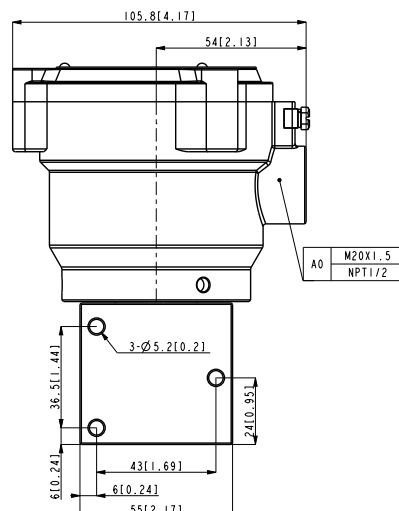
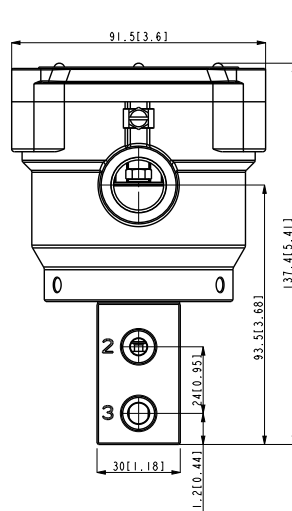
GHC/MHC Coil

Basic catalogue number :
GHC/MHC*-069*14



DSC Coil

Basic catalogue number :
DSC*-069*14

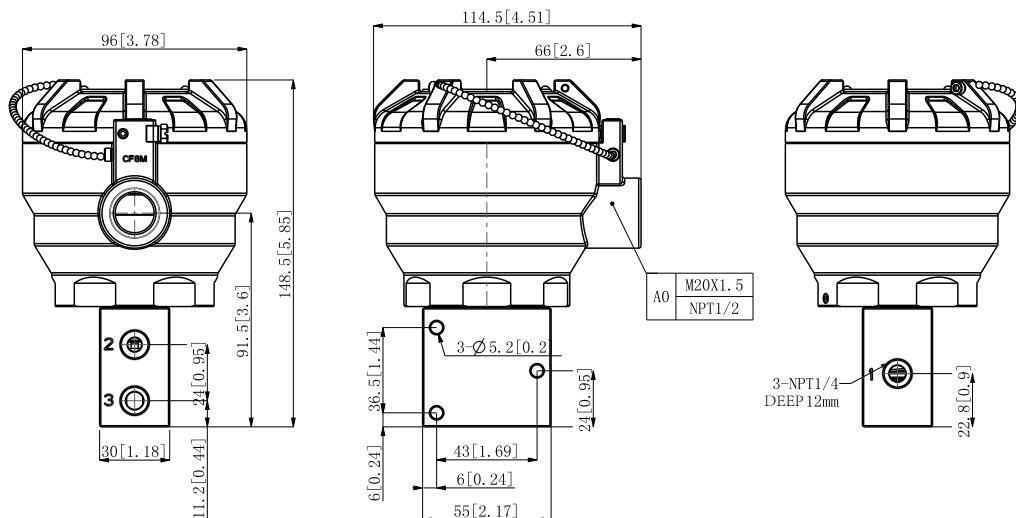


DIMENSIONS: mm[inches]



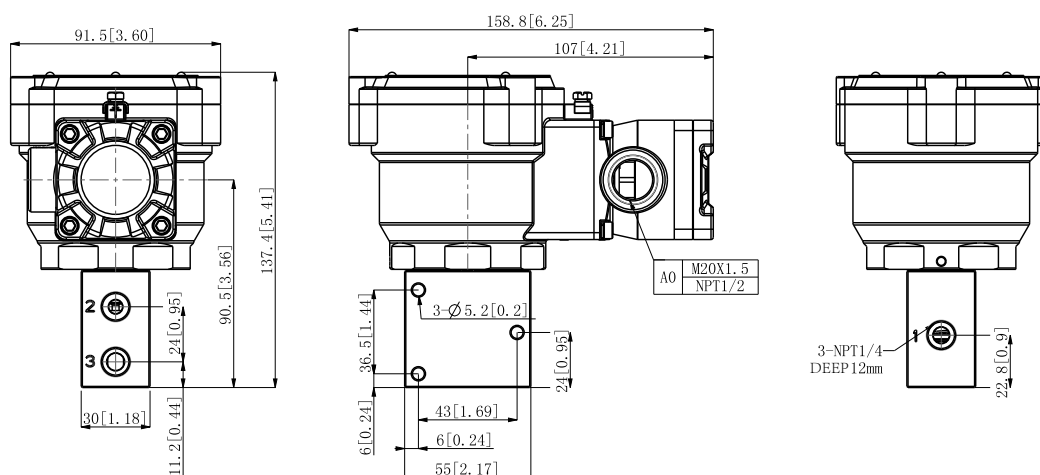
DHC Coil

Basic catalogue number :
DHC*-069*14



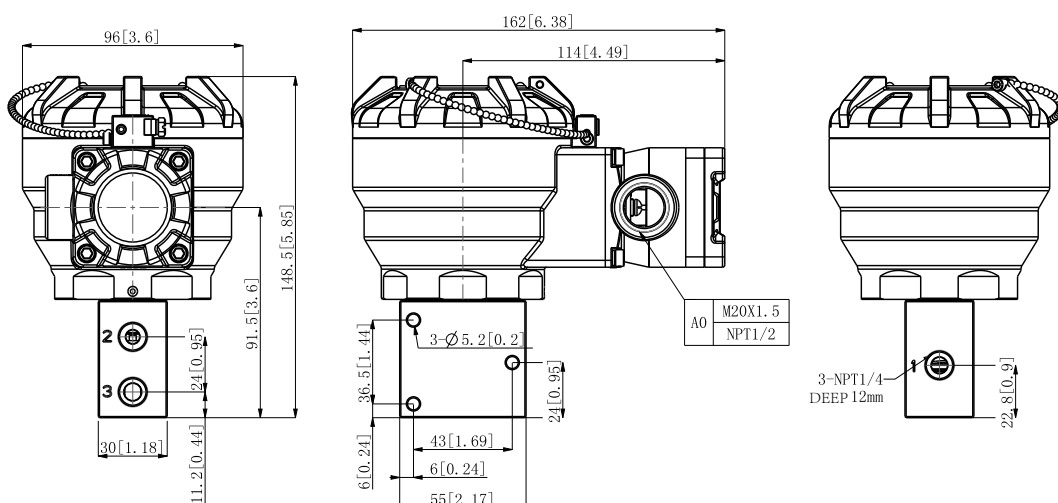
RSC Coil

Basic catalogue number :
RSC*-069*14

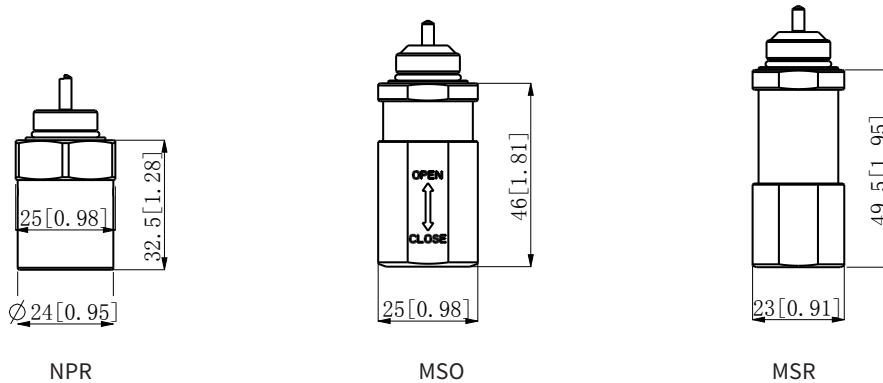


RHC Coil

Basic catalogue number :
RHC*-069*14



MANUAL SWITCH DIMENSIONS



INSTALLATION

Check nameplate for correct Basic catalogue number , pressure, voltage, frequency, and service. Never apply incompatible fluids or exceed pressure rating of the valve. Installation and valve maintenance to be performed by qualified personnel. Never apply incompatible fluids or exceed pressure rating of the valve. Contact PRIMOFLO or your supplier for more information about this valve or other valve options if this valve is not suitable for your application

Installation/maintenance instructions are included with each valve

- The solenoid valves can be mounted in any position without affecting operation
- The mounting holes are provided in the valve body
- Threaded pipe connection identifier is N = NPT (ANSI 1.20.3); G = G (ISO 228/1)
- Declarations of conformity are available on request
- Ex db Prefix "DSC/RSC/DHC/RHC enclosure is provided with a 1/2" NPT threaded entry hole, M20 x 1,5 (prefix "M") is optional.

For more information, please visit www.primoflo.com.

While this information is true and believed to be accurate, PRIMOFLO does not guarantee satisfactory results based on it. Nothing contained herein shall be construed as an express or implied warranty or representation regarding the performance, merchantability, suitability, or any other matter of the products, nor as a recommendation to use any products or processes in conflict with any patent. PRIMOFLO reserves the right to change or improve the design or specifications of the products described herein without prior notice.

PRIMOFLO assumes no responsibility for the selection, use, or maintenance of any products. The proper selection, use, and maintenance of any products are the sole responsibility of the buyer and end user.

If you need any further information or have any questions, please contact PRIMOFLO.

069 SERIES

PRIMO FLO 069 series valves is a universal direct-acting solenoid valves, designed for high flow piloting, requiring zero minimum operating pressure. Its balanced poppet construction permits high flows at minimum power levels. With its unique design and strong safety accreditation, it can withstand even the most demanding environments in the process, it is ideal for power plants, refineries, and chemical processing facilities. With the exceptional service life, it also as part of a broader offering of engineered solutions that includes actuator control packages, redundant control systems and bypass panels.



FEATURES AND BENEFITS

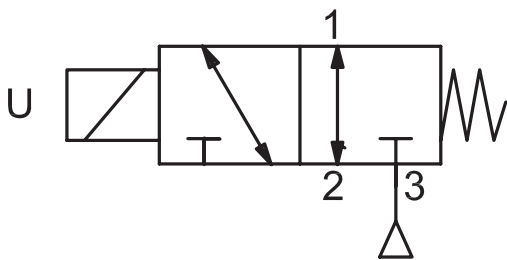
- The valves are certified according to IEC 61508 functional safety data and have SIL-3 capability (TUV)
- Direct acting operated and balanced poppet design
- Explosion-proof operators DSC or DHC series coils special design with magnetic frame embedded
- Can be mounted in any position without affecting operation
- Excellent performance in low temperatures operation condition
- Wide pressure ranges and no minimum operating pressure required
- Manual-operator or Manual-reset are optional
- Double flow direction are available on request
- The explosion-proof DC coils are equipped with a built-in integrated surge protection device
- All valves are provided with a specific exhaust protector
- Coils have class H insulation material
- Meeting various international certifications: NEPSI, EAC, ATEX, IECEx

MATERIALS

MATERIALS IN CONTACT WITH FLUID	
BODY	Stainless steel / Aluminum
OPERATOR	Stainless steel / Aluminum
PLUNGER AND ARMATURE	Stainless steel
SPRING	Stainless steel
SHADING COIL	Copper
SEALING	NBR/FKM

Other materials on request.

FUNCTION



APPLICATIONS

- Actuation Control
- Redundant System
- Pneumatic Systems
- Safety Control
- Automation Control

For uncertain applications or hazardous operating conditions, please contact PRIMO FLO or supplier for technical support

GENERAL

ITEM	SINGLE COIL
PILOT CATEGORY	Direct Operated
MEDIA	Gas, Water, Light oil
AMBIENT TEMPERATURE RANGES	-40°C ~ +65°C
MEDIA TEMPERATURE	-40°C ~ +120°C
OPERATING PRESSURE DIFFERENTIAL	0 - 10 bar
FLOW COEFFICIENT	1.5Kv m ³ /h (25Kv l/min)
VALVE CONSTRUCTION	Balance Poppet
BODY MATERIAL	Stainless steel / Aluminum
APPLICATION ENVIRONMENT	Indoor / Outdoor
INSTALLATION	Any Position
PROTECTION CLASS	IP65/IP66/IP67
MANUAL OPERATOR	Optional

Functional Safety certification is not applicable with manual operator type.

ORDERING GUIDE

Available in repairing kits, accessories, please contact PRIMOFLO for more information.

069 Series Selection Guide:

COIL CATEGORY	GHC - GHC DIN connector (Non-Ex coil) MHC - MHC Ex Coil, Flying leads DHCA - DHC Junction-Box Ex Coil, Aluminum DHCS - DHC Junction-Box Ex Coil, Stainless Steel RHCA - RHC Refined Chamber Ex Coil, Aluminum RHCS - RHC Refined Chamber Ex Coil, Stainless Steel	DHCS	M	- 069	N12	SS	F	MSO	080	E	*	- 24VDC
CABLE ENTRY	Omit - 1/2" NPT(Default) M - M20*1.5											
PRODUCT SERIES	069 - 069											
PORT SIZE	N12 - NPT 1/2" G12 - G 1/2" NMN12 - 1/2"Namur Interface/NPT Pipe Thread NMG12 - 1/2"Namur Interface/G Pipe Thread											
BODY MATERIAL	SS - Stainless Steel AL - Aluminum											
SEALING MATERIAL	Omit - NBR(Default) F - FKM											
MANUAL OPERATOR	Omit - W/O Manual-Operator or Manual-Reset (Default) MSO - With Screw Manual-Operator MSR - With Spring Return Manual-Operator NPR - With No Power Release Manual-Reset											
POWER CONSUMPTION	080 - 8W (Default) 100 - 10W(The Rest Consumption Power by three digits, e.g. 010 as 10W) (Note)											
TECHNICAL REQUIREMENT	E - Comply with ATEX/IEC (The certification system of the European)											
SPECIAL OPTIONS	* - Special on Request											
VOLTAGE	24VDC 110VDC 24VAC 220VAC **											

Note: Any special requirement on others power consumption, please contact with PRIMOFLO.

*Special options are available upon the requirement.

**ATEX/IEC certified is only available for 24VDC, 220VAC.

ADDITIONAL OPTIONS

- The 069 Series is available with several types of manual operators and manual resets, including a Screw Manual Operator (MSO), Spring Return Manual Operator (MSR), No Power Release Manual Reset (NPR).
- Spare parts are available upon request, more information please contact PRIMOFLO or supplier.

SPECIFICATIONS

Pipe Size (ins.)	Orifice Size (mm)	Flow Coefficient Kv		Operating Pressure Differential (bar)		Media Temperature °C		Basic catalogue number
		(m³/h)	(l/min)	Min.	Max.	NBR	FKM	Single Coil
Universal								
1/2	13	1.5	25	0	10	-40 ~ +80	-20 ~ +120	069-*12

ELECTRICAL CHARACTERISTICS

Coil insulation class H

Standard voltages DC (=) 24V -110V; Allowable voltage variation -15%~+10%

AC (~) 24V-220V-230V; Other voltages are available on request

Coil Category	Power Ratings			Operator Ambient Temperature Range (°C)	Safety Code	Protection Class	Cable Entry
	24V/DC(W)	230V/AC(VA)					
		Inrush	Holding				
GHC	8/10	8/10	8/10	-40 ~ +65	EN60730	IP65*	EN175301-803A (ISO 4400)
MHC	8/10	/	/	-40 ~ +45	Ex mb IIC T5 Gb Ex mb IIIC T100°C Db	IP66	Conduit 1/2" NPT
	8/10	/	/	-40 ~ +65	Ex mb IIC T4 Gb Ex mb IIIC T135°C Db	IP66	Conduit 1/2" NPT
	/	8.0	8.0	-40 ~ +45	Ex mb IIC T6 Gb Ex mb IIIC T85°C Db	IP66	Conduit 1/2" NPT
	/	8.0	8.0	-40 ~ +65	Ex mb IIC T5 Gb Ex mb IIIC T100°C Db	IP66	Conduit 1/2" NPT
	/	10.0	10.0	-40 ~ +55	Ex mb IIC T5 Gb Ex mb IIIC T100°C Db	IP66	Conduit 1/2" NPT
	/	10.0	10.0	-40 ~ +65	Ex mb IIC T4 Gb Ex mb IIIC T135°C Db	IP66	Conduit 1/2" NPT
DHC RHC	8/10	/	/	-40 ~ +50	Ex db IIC T6 Gb Ex tb IIIC T85°C Db	IP66/IP67	1/2" NPT or M20 X1.5
	8/10	/	/	-40 ~ +65	Ex db IIC T5 Gb Ex tb IIIC T100°C Db	IP66/IP67	1/2" NPT or M20 X1.5
	/	8/10	8/10	-40 ~ +50	Ex db IIC T6 Gb Ex tb IIIC T85°C Db	IP66/IP67	1/2" NPT or M20 X1.5
	/	8/10	8/10	-40 ~ +65	Ex db IIC T5 Gb Ex tb IIIC T100°C Db	IP66/IP67	1/2" NPT or M20 X1.5

The coils are supplied without cable gland

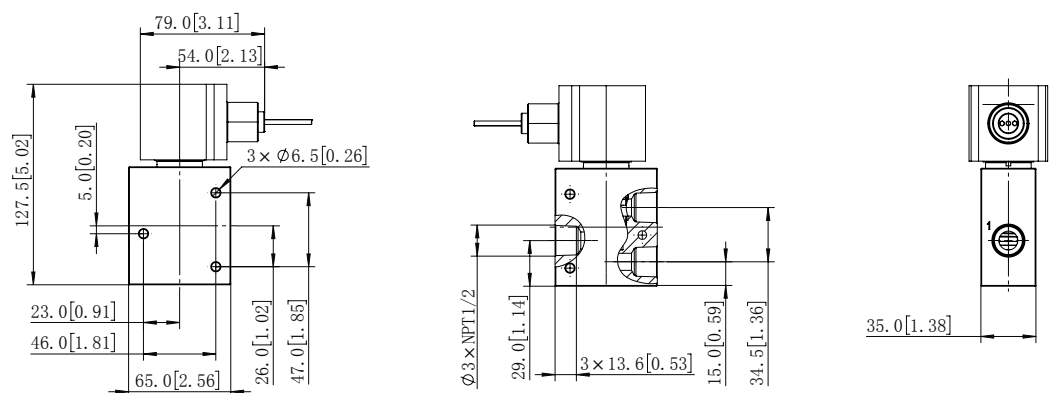
* GHC coils with electrical plug connector are required in protection class IP65.

Other coil types are available on request.

DIMENSIONS: mm[inches]



GHC/MHC Coil



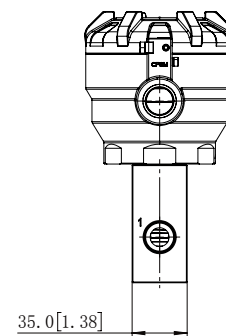
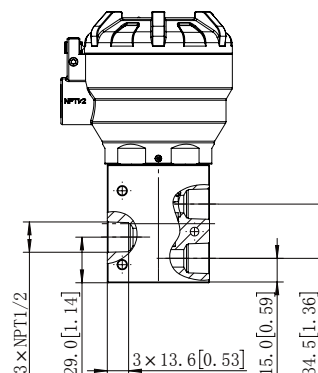
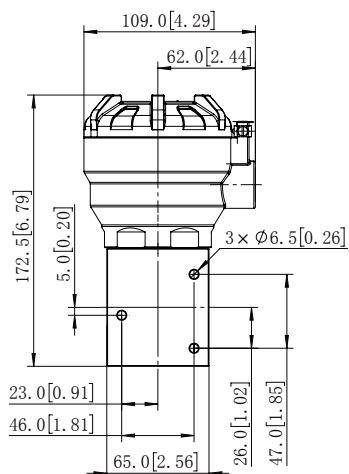
Basic catalogue number :
GHC/MHC*-069*12

DIMENSIONS: mm[inches]



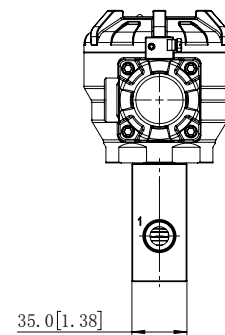
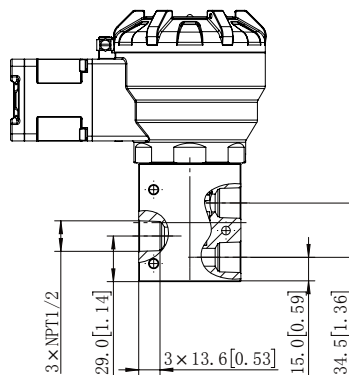
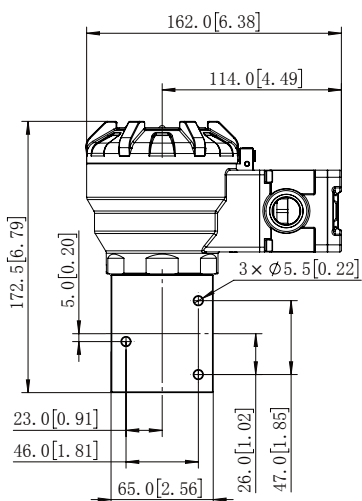
DHC Coil

Basic catalogue number :
DHC*-069*12

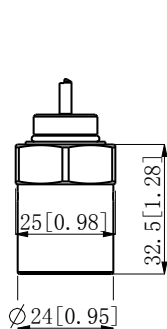


RHC Coil

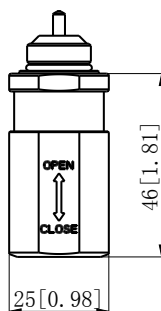
Basic catalogue number :
RHC*-069*12



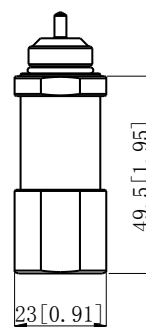
MANUAL SWITCH DIMENSIONS



NPR



MSO



MSR

| INSTALLATION

Check nameplate for correct catalog number, pressure, voltage, frequency, and service. Never apply incompatible fluids or exceed pressure rating of the valve. Installation and valve maintenance to be performed by qualified personnel. Never apply incompatible fluids or exceed pressure rating of the valve. Contact PRIMOFLO or your supplier for more information about this valve or other valve options if this valve is not suitable for your application

Installation/maintenance instructions are included with each valve

- The solenoid valves can be mounted in any position without affecting operation
- The mounting holes are provided in the valve body
- Threaded pipe connection identifier is N = NPT (ANSI 1.20.3); G = G (ISO 228/1)
- Declarations of conformity are available on request
- Ex db Prefix "DSC/RSC/DHC/RHC enclosure is provided with a 1/2" NPT threaded entry hole, M20 x 1,5 (prefix "M") is optional.

For more information, please visit www.primoflo.com.

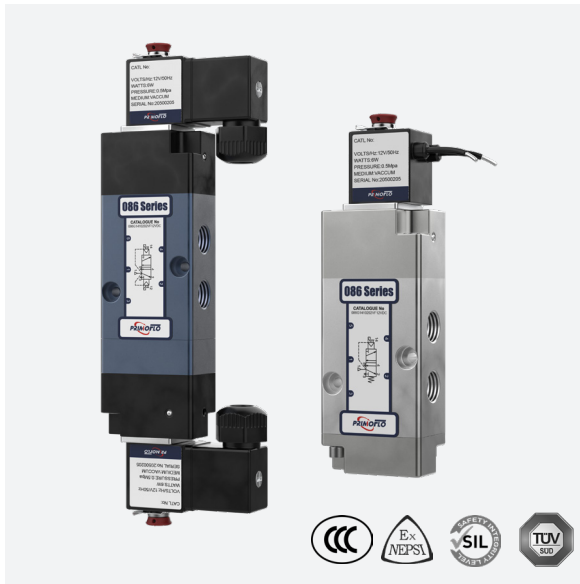
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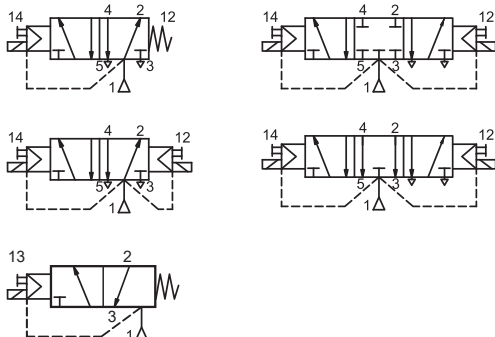
If you need any further information or have any questions, please contact PRIMOFLO.

086 SERIES(TYPE I)

PRIMO FLO 086 series pilot operated spool valves with unique static sealing design, can provide seal compensation with dirt resistance, and multi-million cycle reliability. With the exceptional service life, it is ideal for controlling air or inert gas in challenging environments. The 086 Series valve comes in anodized aluminum and stainless steel material bodies, and it can support a wide variety of actuator piloting applications, suitable for the harsh conditions found in chemicals, refining, food & beverage applications and life science processing.



FUNCTION



APPLICATIONS

- Actuation Control
- Redundant System
- Pneumatic Systems
- Safety Control
- Automation Control

For uncertain applications or hazardous operating conditions, please contact PRIMO FLO or supplier for technical support

FEATURES AND BENEFITS

- The valves are certified according to IEC 61508 functional safety data and have SIL-3 capability (TÜV)
- Unique static sealing compensation design
- Available in single and dual solenoid constructions
- External and Internal pilot are optional
- Can be mounted in any position.
- Available in explosion-proof & None explosion-proof operators
- Available in low power consumption types
- Coils have class H insulation material
- Available in manual-operator and w/o manual-operator
- Threaded port connection and NAMUR connection are optional

MATERIALS

MATERIALS IN CONTACT WITH FLUID	
BODY	Stainless steel / Aluminum
END CAP	Stainless Steel / Aluminum/PBT-GF30
VALVE BODY	Stainless Steel / Aluminum/PBT-GF30
CORE AND PLUGNUT	Stainless steel
SPOOL	POM
SPRING	Stainless steel
SHADING COIL	Copper
SEALING	NBR/VMQ/FKM

Other materials on request.

GENERAL

ITEM	DETAIL
PILOT CATEGORY	Internal Pilot
MEDIA	Gas
AMBIENT TEMPERATURE RANGES	-40°C ~ +65°C
MEDIA TEMPERATURE	-40°C ~ +120°C
OPERATING PRESSURE DIFFERENTIAL	2.0 - 10 bar
FLOW COEFFICIENT	1.23 Kv m ³ /h (20.50 Kv l/min) - 1/4" 2.80 Kv m ³ /h (46.67 Kv l/min) - 1/2"
VALVE CONSTRUCTION	Spool Structure
BODY MATERIAL	Aluminum/Stainless Steel
APPLICATION ENVIRONMENT	Indoor / Outdoor
INSTALLATION	Any Position
PROTECTION CLASS	IP65
MANUAL OPERATOR	Optional, Including by default

Functional Safety certification is not applicable with manual operator type.

ORDERING GUIDE

Available in repairing kits, accessories, please contact PRIMOFLO for more information.

086 series(type I) Selection Guide:

COIL CATEGORY	FSC - FSC Flying leads SSC - SSC DIN Connector	SSC - 086
PRODUCT SERIES	086 - 086	086
PORT SIZE	N14 - NPT 1/4" G14 - G 1/4" N12 - NPT 1/2" G12 - G 1/2" NMN14 - 1/4"Namur Interface/NPT Pipe Thread NMG14 - 1/4"Namur Interface/G Pipe Thread NMN12 - 1/2"Namur Interface/NPT Pipe Thread NMG12 - 1/2"Namur Interface/G Pipe Thread	N14
FUNCTION SERIES	1 - 3/2 Single Coil 2 - 5/2 Single Coil 3 - 5/2 Dual Coil 4 - 5/3 Middle Closed 5 - 5/3 Middle Exhausted	1
BODY MATERIAL	AL - Aluminum (Note1) AA - Aluminum SS - Stainless Steel	AL
MANUAL OPERATOR	Omit - With Manual-Operator(Default) N - W/O Manual-Operator	N
POWER CONSUMPTION	Omit - 6W (Default) BP - 3.5W 080 - 8W(The Rest Consumption Power by three digits, e.g. 080 as 8W) (Note 2)	BP
TECHNICAL REQUIREMENT	E - Comply with ATEX/IEC (The certification system of the European)	E
SPECIAL OPTIONS	* - Special on Request	*
VOLTAGE	24VDC 110VDC 24VAC 220VAC **	24VDC

Note 1 : PBT-GF30 Pilot Body End-cap ($\geq -25^{\circ}\text{C}$)

Note 2: Any special requirement on others power consumption, please contact with PRIMOFLO.

*Special options are available upon the requirement.

**ATEX/IEC certified is only available for 24VDC, 220VAC.

ADDITIONAL OPTIONS

- Threaded port connection and NAMUR connection are all available in pneumatic operated, spring return version
- Threaded port connection and NAMUR connection are all available in dual pneumatic operated, air return version
- Special options are available upon the requirement.

SPECIFICATIONS

Pipe Size (ins.)	Orifice Size (mm)	Flow Coefficient Kv		Operating Pressure Differential (bar)		Media Temperature °C		Basic catalogue number
		(m³/h)	(l/min)	Min.	Max.	Max. AC	Max. DC	Constr.Type
Solenoid Air Pilot – Spring Return (Single Coil)								
1/4	7	1.23	20.50	2.0	10	120	120	086-*14-1
1/4	7	1.23	20.50	2.0	10	120	120	086-*14-2
Solenoid Air Pilot Operated and Return (Dual Coil)								
1/4	7	1.23	20.50	2.0	10	120	120	086-*14-3
1/4	7	1.23	20.50	2.0	10	120	120	086-*14-4
1/4	7	1.23	20.50	2.0	10	120	120	086-*14-5
Solenoid Air Pilot – Spring Return (Single Coil)								
1/4	7	1.23	20.50	2.0	10	120	120	086-NM*14-2
Solenoid Air Pilot Operated and Return (Dual Coil)								
1/4	7	1.23	20.50	2.0	10	120	120	086-NM*14-3
Solenoid Air Pilot – Spring Return (Single Coil)								
1/2	14	2.80	46.67	2.0	10	120	120	086-*12-1
1/2	14	2.80	46.67	2.0	10	120	120	086-*12-2
Solenoid Air Pilot Operated and Return (Dual Coil)								
1/2	14	2.80	46.67	2.0	10	120	120	086-*12-3
1/2	14	2.80	46.67	2.0	10	120	120	086-*12-4
1/2	14	2.80	46.67	2.0	10	120	120	086-*12-5
Solenoid Air Pilot – Spring Return (Single Coil)								
1/2	14	2.80	46.67	2.0	10	120	120	086-NM*12-2
Solenoid Air Pilot Operated and Return (Dual Coil)								
1/2	14	2.80	46.67	2.0	10	120	120	086-NM*12-3

ELECTRICAL CHARACTERISTICS

Coil insulation class H
Standard voltages DC (=) 24V -110V; Allowable voltage variation -15%~+10%
AC (~) 24V-220V-230V; Other voltages are available on request

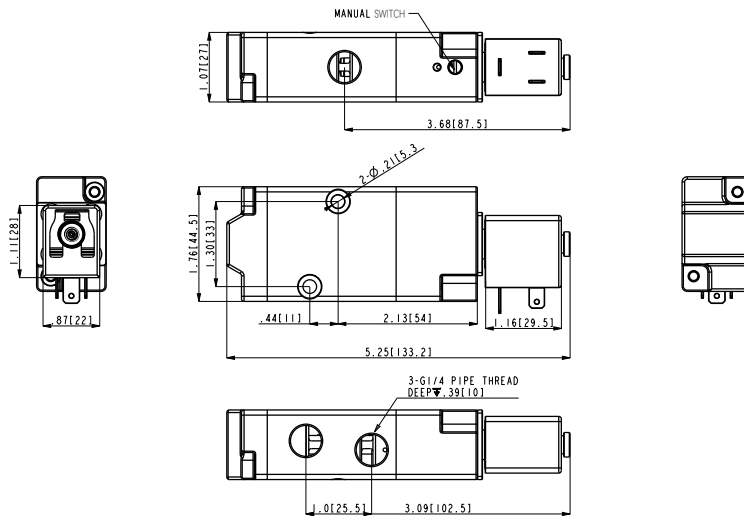
Coil Category	Power Ratings			Operator Ambient Temperature Range (°C)	Safety Code	Protection Class	Cable Entry
	24V/ DC(W)	230V/AC(VA)					
		Inrush	Holding				
FSC	3.5/6	3.5/6	3.5/6	-40 ~ +65	EN60730	IP65	Flying leads
SSC	3.5/6	3.5/6	3.5/6	-40 ~ +65	EN60730	IP65*	EN175301-803A (ISO 4400)

The coils are supplied without cable gland

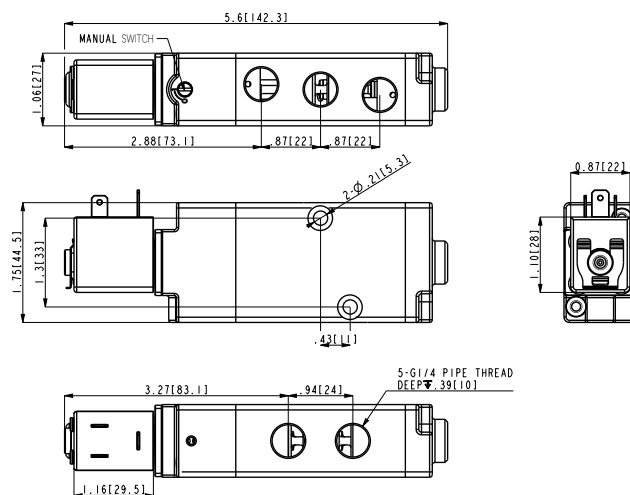
* SSC coils with electrical plug connector are required in protection class IP65.

Other coil types are available on request.

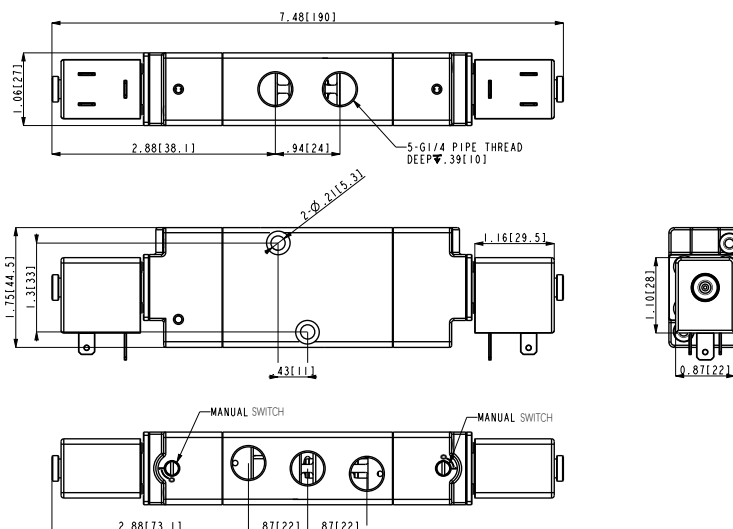
Constr.Type: 1
Basic catalogue number :
FSC/SSC*-086***1



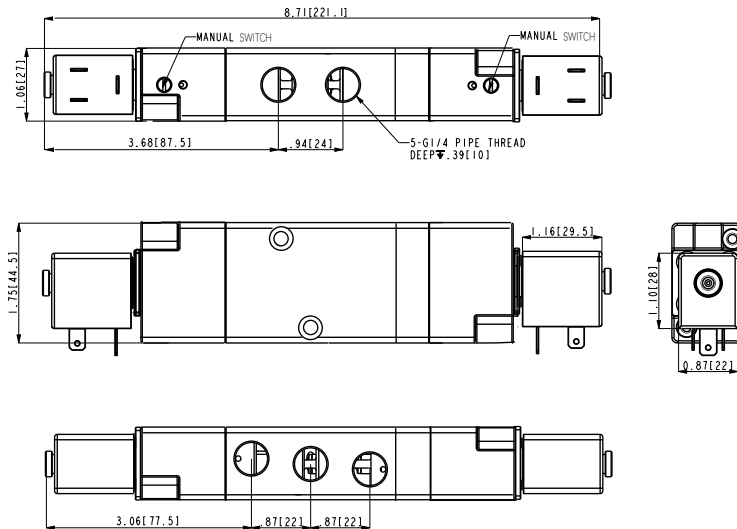
Constr.Type: 2
Basic catalogue number :
FSC/SSC*-086***2



Constr.Type: 3
Basic catalogue number :
FSC/SSC*-086***3



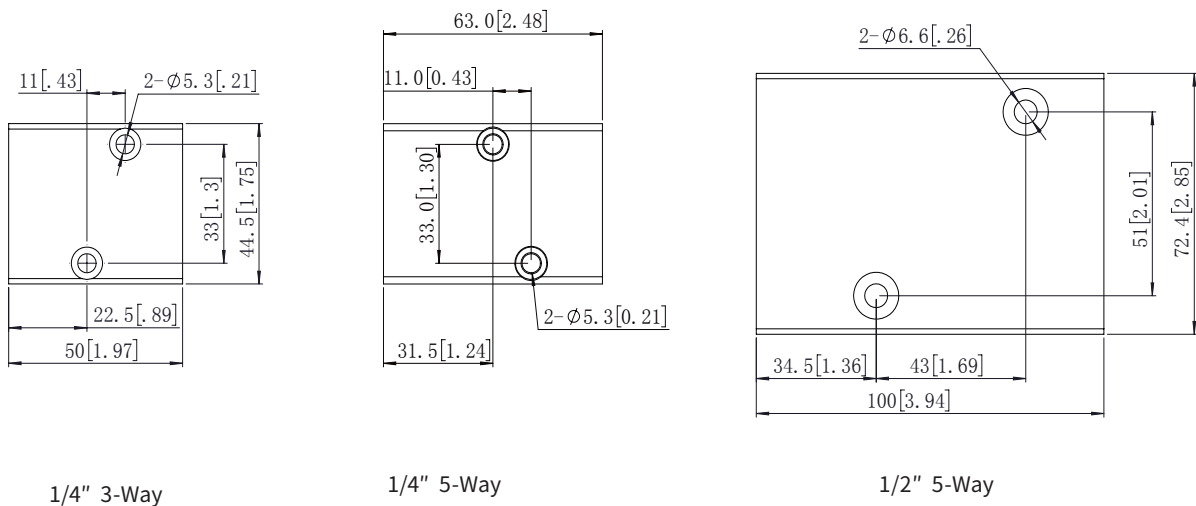
DIMENSIONS: mm [inches]



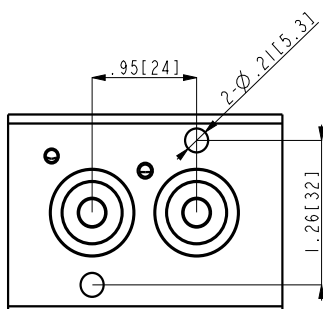
FSC/SSC Coil

Constr.Type: 4/5
Basic catalogue number :
FSC/SSC*-086***4/5

086 SERIES INSTALLATION DIMENSIONS



086 SERIES VALVE NAMUR INSTALLATION DIMENSIONS



| INSTALLATION

Check nameplate for correct Basic catalogue number , pressure, voltage, frequency, and service. Never apply incompatible fluids or exceed pressure rating of the valve. Installation and valve maintenance to be performed by qualified personnel. Never apply incompatible fluids or exceed pressure rating of the valve. Contact PRIMOFLO or your supplier for more information about this valve or other valve options if this valve is not suitable for your application

Installation/maintenance instructions are included with each valve

- The solenoid valves can be mounted in any position without affecting operation
- The mounting holes are provided in the valve body
- Threaded pipe connection identifier is N = NPT (ANSI 1.20.3); G = G (ISO 228/1)
- Declarations of conformity are available on request

For more information, please visit www.primoflo.com.

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PRIMOFLO assumes no responsibility for the selection, use, or maintenance of any products. The proper selection, use, and maintenance of any products are the sole responsibility of the buyer and end user.

If you need any further information or have any questions, please contact PRIMOFLO.

086 SERIES(TYPE A)

PRIMO FLO 086 series pilot operated spool valves with unique static sealing design, can provide seal compensation with dirt resistance, and multi-million cycle reliability. With the exceptional service life, it is ideal for controlling air or inert gas in challenging environments. The 086 Series valve comes in anodized aluminum and stainless steel material bodies, and it can support a wide variety of actuator piloting applications, suitable for the harsh conditions found in chemicals, refining, food & beverage applications and life science processing.



FEATURES AND BENEFITS

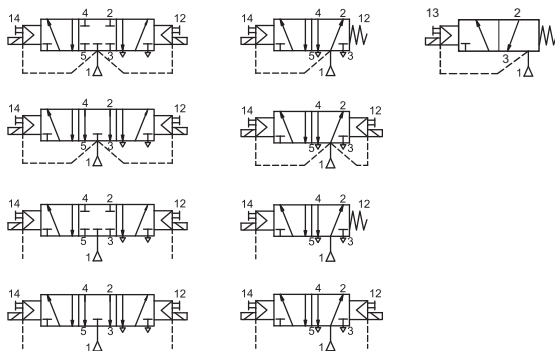
- The valves are certified according to IEC 61508 functional safety data and have SIL-3 capability (TÜV)
- Unique static sealing compensate design
- Single and dual solenoid constructions
- Available in External & Internal pilot
- Explosion-proof operators DSC or DHC series special design with magnetic frame embedded
- Can be mounted in any position
- The explosion-proof DC coils are equipped with a built-in integrated surge protection device
- Available in low power consumption types
- Coils have class H insulation material
- Manual-operator or Manual-reset are optional
- Threaded port connection and NAMUR connection are optional
- Meeting various international certifications: NEPSI, EAC, ATEX, IECEx

MATERIALS

MATERIALS IN CONTACT WITH FLUID	
BODY	Stainless steel / Aluminum
END CAP	Stainless Steel / Aluminum/PBT-GF30
VALVE BODY	Stainless steel / Aluminum
CORE AND PLUGNUT	Stainless steel
SPOOL	POM/Stainless steel
SPRING	Stainless steel
SHADING COIL	Copper
SEALING	NBR/VMQ/FVMQ/FKM

Other materials on request.

FUNCTION



APPLICATIONS

- Actuation Control
- Redundant System
- Pneumatic Systems
- Safety Control
- Automation Control

For uncertain applications or hazardous operating conditions, please contact PRIMO FLO or supplier for technical support

GENERAL

ITEM	DETAIL
PILOT CATEGORY	Internal/External Pilot
MEDIA	Gas
AMBIENT TEMPERATURE RANGES	-40°C ~ +65°C
MEDIA TEMPERATURE	-40°C ~ +120°C
OPERATING PRESSURE DIFFERENTIAL	2.0 - 10 bar
FLOW COEFFICIENT	1.23 Kv m ³ /h (20.50 Kv l/min) - 1/4" 2.80 Kv m ³ /h (46.67 Kv l/min) - 1/2"
VALVE CONSTRUCTION	Spool Structure
BODY MATERIAL	Aluminum/Stainless Steel
APPLICATION ENVIRONMENT	Indoor / Outdoor
INSTALLATION	Any Position
PROTECTION CLASS	IP65/IP66/IP67

Functional Safety certification is not applicable with manual operator type.

ORDERING GUIDE

Available in repairing kits, accessories, please contact PRIMOFLO for more information.

086 series(type A) Selection Guide:

COIL CATEGORY	ISCA - Intrinsically Safe Coil with Connector, Aluminum ISCS - Intrinsically Safe Coil with Connector, Stainless Steel GSC - GSC Non-Ex Coil, Epoxy MSC - MSC Ex Coil, Flying leads DSCA - DSC Junction-Box Ex Coil, Aluminum DSCS - DSC Junction-Box Ex Coil, Stainless Steel RSCA - RSC Refined Chamber Ex Coil, Aluminum RSCS - RSC Refined Chamber Ex Coil, Stainless Steel
CABLE ENTRY	Omit - 1/2" NPT(Default) M - M20*1.5
PRODUCT SERIES	086 - 086
PORT SIZE	N14 - NPT 1/4" G14 - G 1/4" N12 - NPT 1/2" G12 - G 1/2" NMN14 - 1/4"Namur Interface/NPT Pipe Thread NMG14 - 1/4"Namur Interface/G Pipe Thread NMN12 - 1/2"Namur Interface/NPT Pipe Thread NMG12 - 1/2"Namur Interface/G Pipe Thread
FUNCTION SERIES	1 - 3/2 Single Coil 2 - 5/2 Single Coil 3 - 5/2 Dual Coil 4 - 5/3 Middle Closed 5 - 5/3 Middle Exhausted
BODY MATERIAL	AL - Aluminum (Note1) AA - Aluminum SS - Stainless Steel
PILOT SELECTION	Omit - Internal Air Pilot (Default) E - External Air Pilot
MANUAL OPERATOR	Omit - With Manual-Operator(Default) N - W/O Manual-Operator
POWER CONSUMPTION	Omit - ISC Omit - 6W (Default) BP - 3.8W(GSC/DSC/RSC, Direct Current) LP - 1.8W (GSC, Direct Current) LP - 1.5W (DSC/RSC, Direct Current) 080 - 8W(The Rest Consumption Power by three digits, e.g. 080 as 8W) (Note 2)
TECHNICAL REQUIREMENT	E - Comply with ATEX/IEC (The certification system of the European)
SPECIAL OPTIONS	* - Special on Request
VOLTAGE	24VDC 110VDC 24VAC 220VAC**

Note 1 : PBT-GF30 Pilot Body End-cap ($\geq -25^{\circ}\text{C}$)

Note 2: Any special requirement on others power consumption, please contact with PRIMOFLO.

*Special options are available upon the requirement.

**ATEX/IEC certified is only available for 24VDC, 220VAC.

ADDITIONAL OPTIONS

- Threaded port connection and NAMUR connection are all available in pneumatic operated, spring return version
- Threaded port connection and NAMUR connection are all available in dual pneumatic operated, air return version
- Special options are available upon the requirement.

SPECIFICATIONS

Pipe Size (ins.)	Orifice Size (mm)	Flow Coefficient Kv		Operating Pressure Differential (bar)		Media Temperature °C		Basic catalogue number
		(m³/h)	(l/min)	Min.	Max.	Max. AC	Max. DC	Constr.Type
Solenoid Air Pilot – Spring Return (Single Coil)								
1/4	7	1.23	20.50	2.0	10	120	120	086-*14-1
1/4	7	1.23	20.50	2.0	10	120	120	086-*14-2
Solenoid Air Pilot Operated and Return (Dual Coil)								
1/4	7	1.23	20.50	2.0	10	120	120	086-*14-3
1/4	7	1.23	20.50	2.0	10	120	120	086-*14-4
1/4	7	1.23	20.50	2.0	10	120	120	086-*14-5
Solenoid Air Pilot – Spring Return (Single Coil)								
1/4	7	1.23	20.50	2.0	10	120	120	086-NM*14-2
Solenoid Air Pilot Operated and Return (Dual Coil)								
1/4	7	1.23	20.50	2.0	10	120	120	086-NM*14-3
Solenoid Air Pilot – Spring Return (Single Coil)								
1/2	14	2.80	46.67	2.0	10	120	120	086-*12-1
1/2	14	2.80	46.67	2.0	10	120	120	086-*12-2
Solenoid Air Pilot Operated and Return (Dual Coil)								
1/2	14	2.80	46.67	2.0	10	120	120	086-*12-3
1/2	14	2.80	46.67	2.0	10	120	120	086-*12-4
1/2	14	2.80	46.67	2.0	10	120	120	086-*12-5
Solenoid Air Pilot – Spring Return (Single Coil)								
1/2	14	2.80	46.67	2.0	10	120	120	086-NM*12-2
Solenoid Air Pilot Operated and Return (Dual Coil)								
1/2	14	2.80	46.67	2.0	10	120	120	086-NM*12-3

ELECTRICAL CHARACTERISTICS

Coil insulation class H

Standard voltages DC (=) 24V -110V; Allowable voltage variation -15%~+10%

AC (~) 24V-220V-230V; Other voltages are available on request

Coil Category	Power Ratings			Operator Ambient Temperature Range (°C)	Safety Code	Protection Class	Cable Entry
	24V/ DC(W)	230V/AC(VA)					
		Inrush	Holding				
GSC	1.8/3.8/6	1.8/3.8/6	1.8/3.8/6	-40 ~ +65	EN60730	IP65*	EN175301-803A (ISO 4400)
MSC	1.8	/	/	-40 ~ +55	Ex mb IIC T6 Gb Ex mb IIIC T85°C Db	IP65	Conduit 1/2" NPT
	1.8	/	/	-40 ~ +65	Ex mb IIC T5 Gb Ex mb IIIC T100°C Db	IP65	Conduit 1/2" NPT
	3.8/6.0	/	/	-40 ~ +40	Ex mb IIC T6 Gb Ex mb IIIC T85°C Db	IP65	Conduit 1/2" NPT
	3.8/6.0	/	/	-40 ~ +55	Ex mb IIC T5 Gb Ex mb IIIC T100°C Db	IP65	Conduit 1/2" NPT
	3.8/6.0	/	/	-40 ~ +65	Ex mb IIC T4 Gb Ex mb IIIC T135°C Db	IP65	Conduit 1/2" NPT
	/	4.0	4.0	-40 ~ +45	Ex mb IIC T5 Gb Ex mb IIIC T100°C Db	IP65	Conduit 1/2" NPT
	/	4.0	4.0	-40 ~ +65	Ex mb IIC T4 Gb Ex mb IIIC T135°C Db	IP65	Conduit 1/2" NPT

Coil Category	Power Ratings			Operator Ambient Temperature Range (°C)	Safety Code	Protection Class	Cable Entry
	24V/DC(W)	230V/AC(VA)					
		Inrush	Holding				
DSC RSC	1.5/3.8/6	/	/	-40 ~ +45	Ex db IIC T6 Gb Ex tb IIIC T85°C Db	IP66/IP67	1/2"NPT or M20 X1.5
	1.5/3.8/6	/	/	-40 ~ +60	Ex db IIC T5 Gb Ex tb IIIC T100°C Db	IP66/IP67	1/2"NPT or M20 X1.5
	1.5/3.8/6	/	/	-40 ~ +65	Ex db IIC T4 Gb Ex tb IIIC T135°C Db	IP66/IP67	1/2"NPT or M20 X1.5
	/	1.5/4/6.5	1.5/4/6.5	-40 ~ +50	Ex db IIC T5 Gb Ex tb IIIC T100°C Db	IP66/IP67	1/2"NPT or M20 X1.5
	/	1.5/4/6.5	1.5/4/6.5	-40 ~ +65	Ex db IIC T4 Gb Ex tb IIIC T135°C Db	IP66/IP67	1/2"NPT or M20 X1.5

The coils are supplied without cable gland

* GSC coils with electrical plug connector are required in protection class IP65.

Other coil types are available on request.

ELECTRICAL CHARACTERISTICS (Intrinsically Safe Coil)

Coil insulation class H

Standard voltages DC (=) Allowable voltage variation $\pm 10\%$

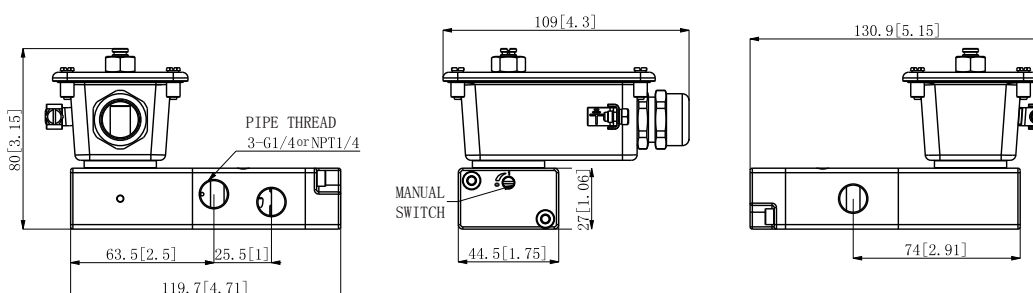
ISC series solenoid coil intrinsic safety parameters and maximum internal equivalent parameters:

Ui = 30V, Ii = 160mA, Pi = 1.6W, Ci = 0(uF), Li = 0(mH)

Coil Category	Nominal resistance RN coil (Ω)	Min. required switching current (mA)	Resistance Rw 60 coil (Ω)	Required voltage at terminal Rw 60 (V)	Safety Code	Temperature Ambient/ Fluid (°C)	Protection Class	Cable Entry
ISC	250	35	295	10.5	Ex ia IIC T6 Ga Ex ia IIIC T85°C Db	-40 ~ +45	IP66/IP67	Standard NPT 1/2" stainless steel cable gland (optional: M20*1.5), without safety barrier.
					Ex ia IIC T5 Ga Ex ia IIIC T100°C Db	-40 ~ +60		

Other coil types are available on request.

DIMENSIONS: mm[inches]



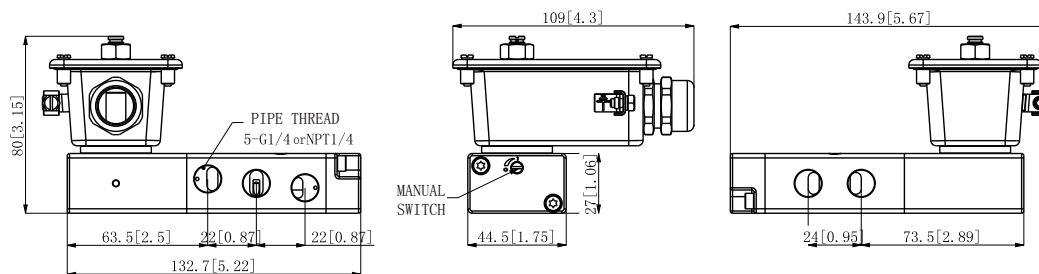
ISC Coil

Constr.Type: 1

Basic catalogue number:

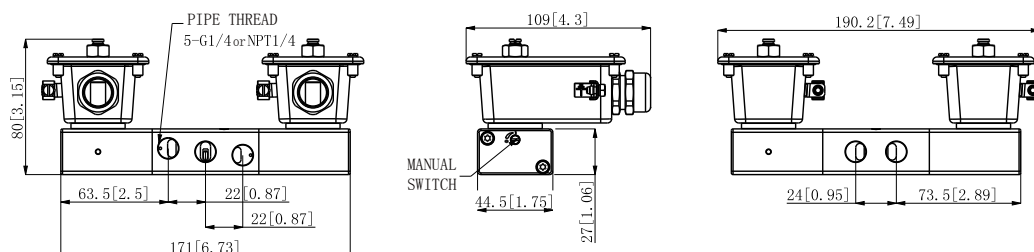
ISC*-086***1

DIMENSIONS: mm[inches]



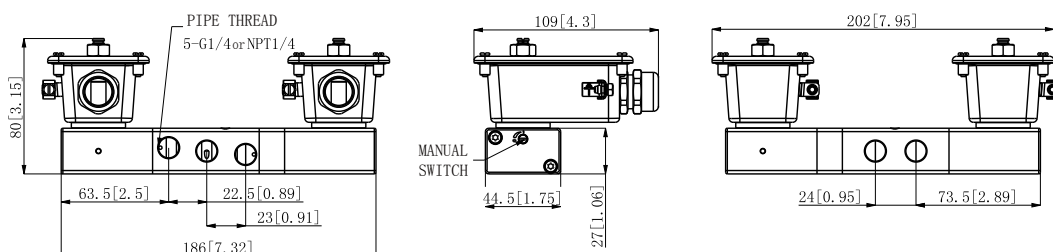
ISC Coil

Constr.Type: 2
Basic catalogue number :
ISC*-086***2



ISC Coil

Constr.Type: 3
Basic catalogue number :
ISC*-086***3



ISC Coil

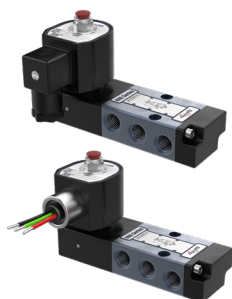
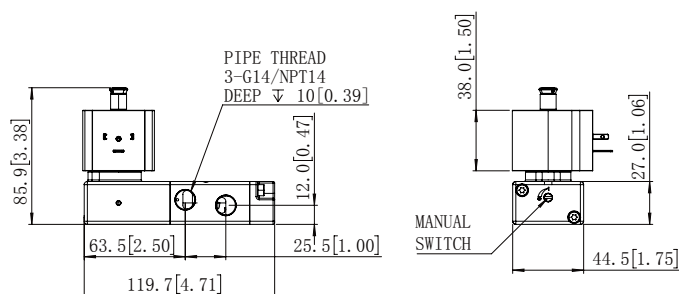
Constr.Type: 4/5
Basic catalogue number :
ISC*-086***4/5

DIMENSIONS: mm[inches]



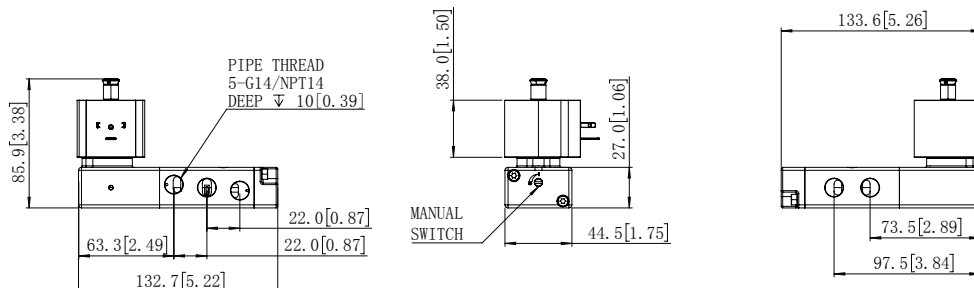
GSC/MSC Coil

Constr.Type: 1
Basic catalogue number :
GSC/MSC*-086***1



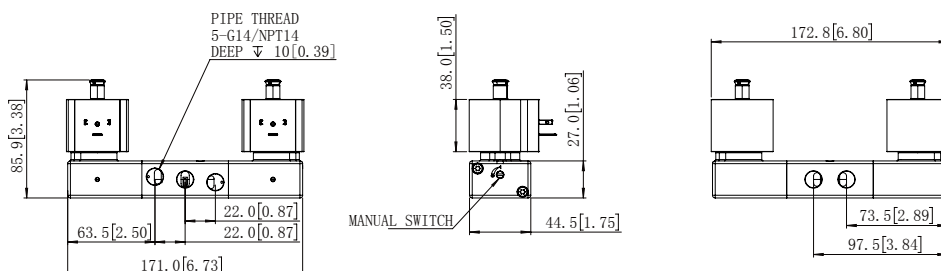
GSC/MSC Coil

Constr.Type: 2
Basic catalogue number :
GSC/MSC*-086***2



GSC/MSC Coil

Constr.Type: 3
Basic catalogue number :
GSC/MSC*-086***3

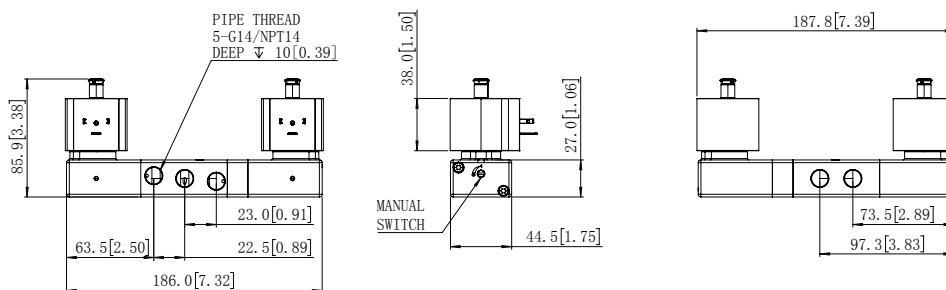


DIMENSIONS: mm[inches]



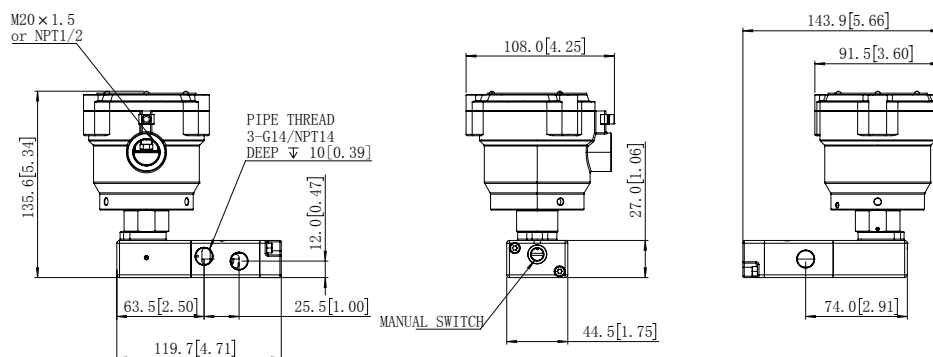
GSC/MSC Coil

Constr.Type: 4/5
Basic catalogue number :
GSC/MSC*-086***4/5



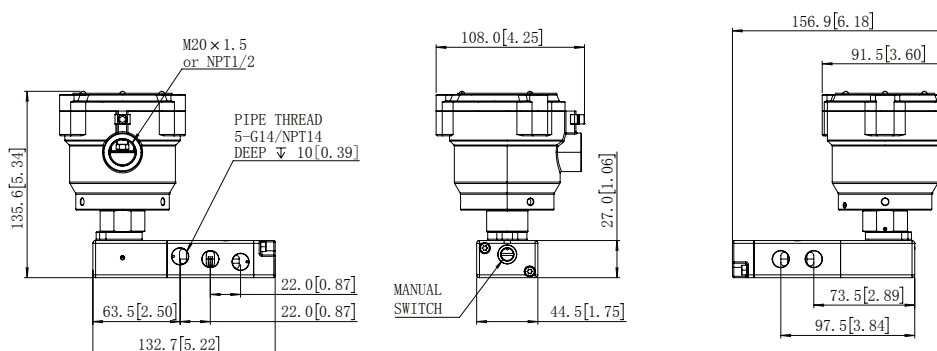
DSC Coil

Constr.Type: 1
Basic catalogue number :
DSC*-086***1



DSC Coil

Constr.Type: 2
Basic catalogue number :
DSC*-086***2

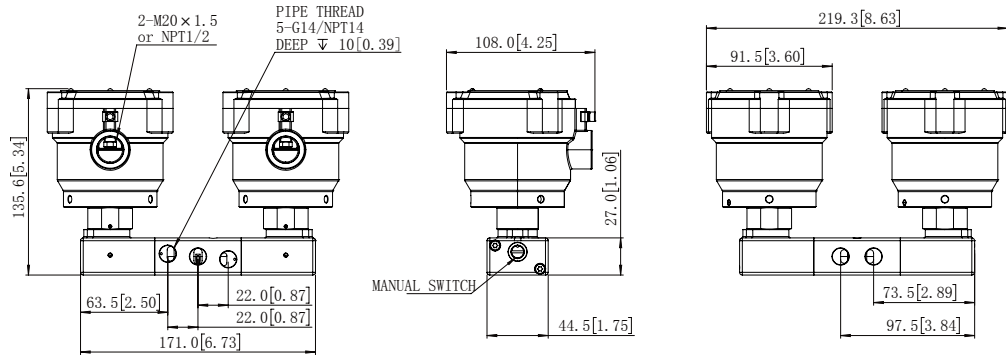


DIMENSIONS: mm[inches]



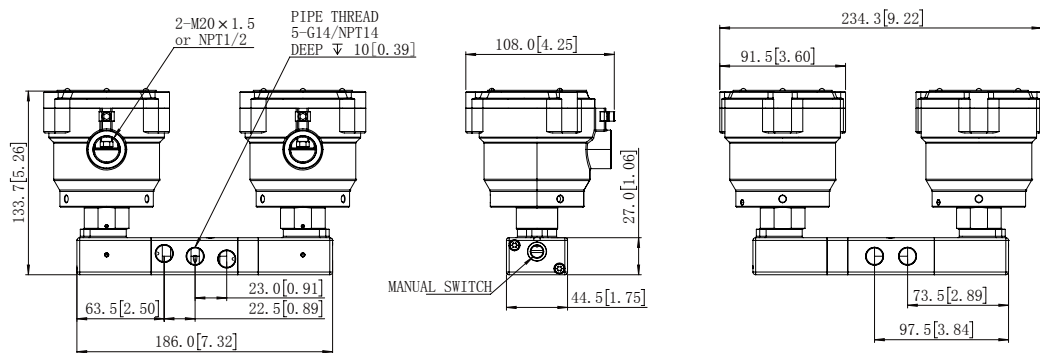
DSC Coil

Constr.Type: 3
Basic catalogue number :
DSC*-086***3



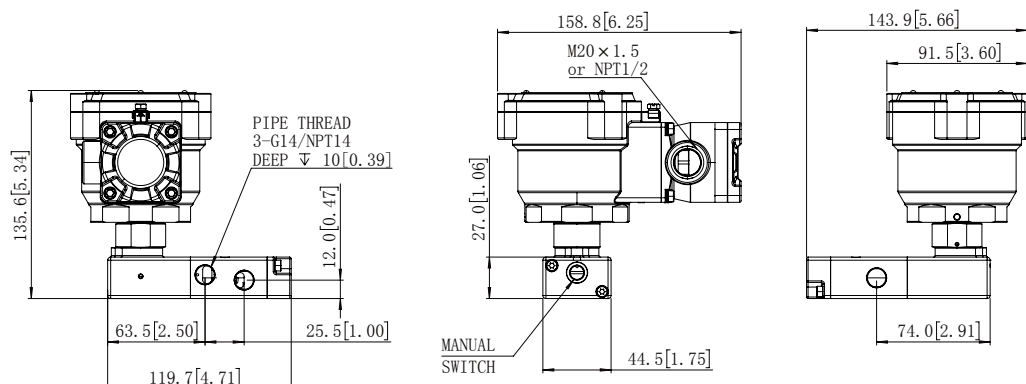
DSC Coil

Constr.Type: 4/5
Basic catalogue number :
DSC*-086***4/5



RSC Coil

Constr.Type: 1
Basic catalogue number :
RSC*-086***1

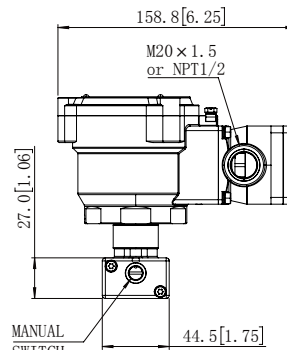
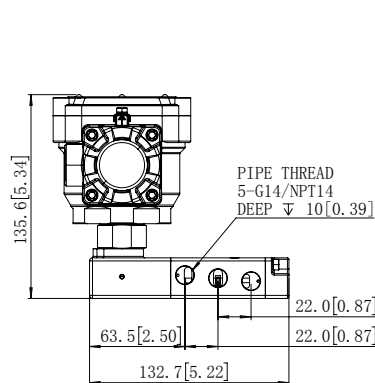


DIMENSIONS: mm[inches]



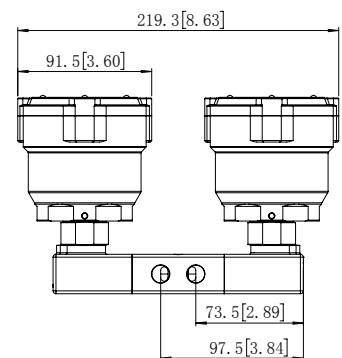
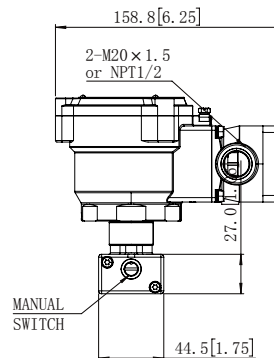
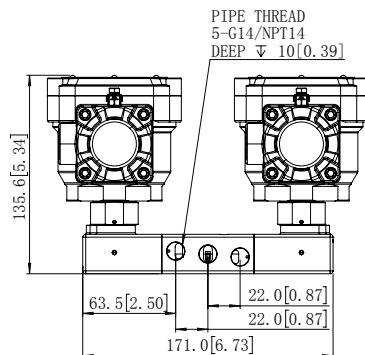
RSC Coil

Constr.Type: 2
Basic catalogue number :
RSC*-086***2



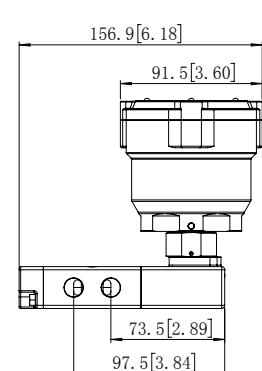
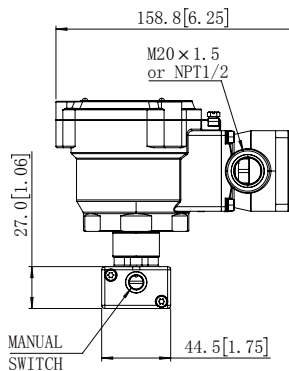
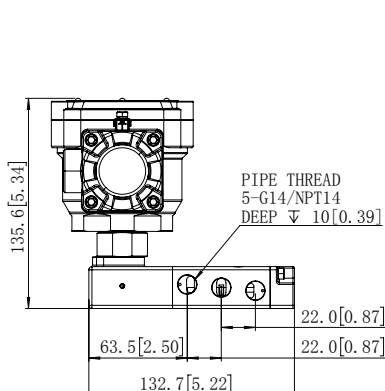
RSC Coil

Constr.Type: 3
Basic catalogue number :
RSC*-086***3

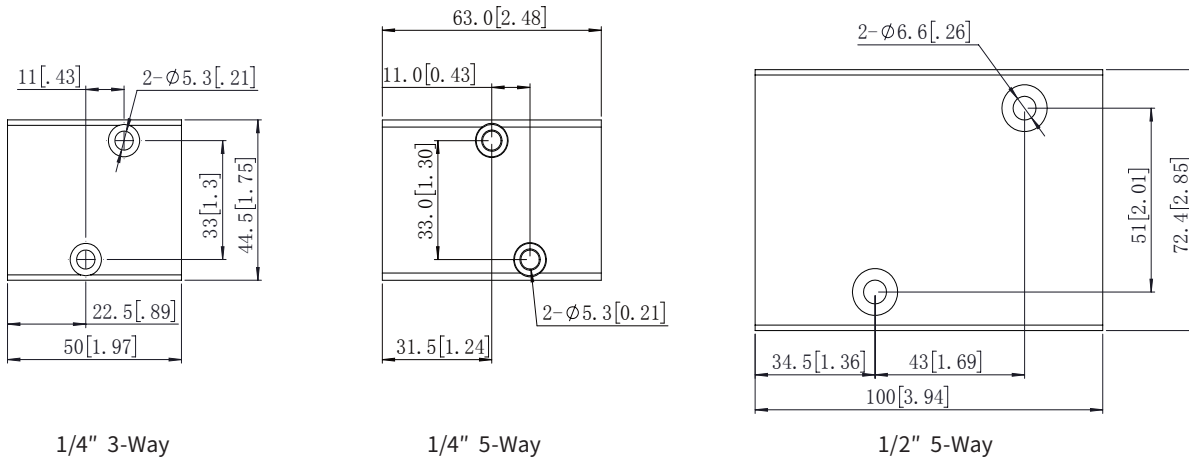


RSC Coil

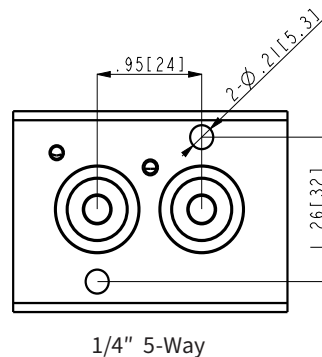
Constr.Type: 4/5
Basic catalogue number :
RSC*-086***4/5



086 SERIES INSTALLATION DIMENSIONS



086 SERIES VALVE NAMUR INSTALLATION DIMENSIONS



INSTALLATION

Check nameplate for correct Basic catalogue number , pressure, voltage, frequency, and service. Never apply incompatible fluids or exceed pressure rating of the valve. Installation and valve maintenance to be performed by qualified personnel. Never apply incompatible fluids or exceed pressure rating of the valve. Contact PRIMOFLO or your supplier for more information about this valve or other valve options if this valve is not suitable for your application

Installation/maintenance instructions are included with each valve

- The solenoid valves can be mounted in any position without affecting operation
- The mounting holes are provided in the valve body
- Threaded pipe connection identifier is N = NPT (ANSI 1.20.3); G = G (ISO 228/1)
- Declarations of conformity are available on request

For more information, please visit www.primoflo.com.

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If you need any further information or have any questions, please contact PRIMOFLO.

001 SERIES (Type 1)

PRIMO FLO 001 series solenoid valves are compact, direct acting valves offering a long continuous cycling life in a wide range of applications. It can be opened without minimum operating , with excellent control and reliable performance, the 3/2-way , 2/2 –way valves are capable of handling a variety of fluids such as air, water, oil, gases, and other gases/ liquids compatible with the sealing material used. With the high-quality materials, ensuring that they can withstand the rigors of high-pressure fluid control. It’ s an ideal choice for various industries, such as car wash systems, dish-washing and laundry equipment, pumps, compressors, boilers, burners, food processing and many others.



FEATURES AND BENEFITS

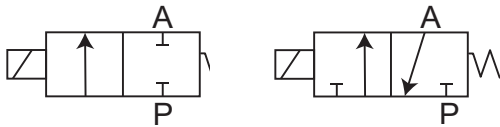
- The valves are certified according to IEC 61508 Functional Safety data and have SIL-3 capability (TÜV)
- Direct acting construction
- Wide pressure ranges and no minimum operating pressure required
- Available in None explosion-proof operators
- Coils have class H insulation material

MATERIALS

MATERIALS IN CONTACT WITH FLUID	
BODY	Stainless steel
END CAP	Stainless steel
CORE AND ARMATURE	Stainless steel
SPRING	Stainless steel
SHADING COIL	Copper
SEALING	LNBR/FKM

Other materials on request.

FUNCTION



APPLICATIONS

- Oil & Gas
- Industrial Water Control
- Power
- Medical & Life Science
- Food & Beverage

For uncertain applications or hazardous operating conditions, please contact PRIMO FLO or suppliers for technical support.

GENERAL

ITEM	DETAIL	
MEDIA	Gas, Water, Light oil	
AMBIENT TEMPERATURE RANGES	Standard	-40°C ~ +65°C
	Options	-15°C ~ +82°C
MEDIA TEMPERATURE	Standard	-40°C ~ +60°C
	Options	-15°C ~ +120°C
OPERATING PRESSURE DIFFERENTIAL	0 ~ 53 bar	
FLOW COEFFICIENT	0.05 ~ 0.76 Kv m³/h	
APPLICATION ENVIRONMENT	Normal Corrosive Area	
INSTALLATION	Any Position	
SEAL MATERIAL	Standard	LNBR
	Options	VMQ/FKM
VALVE CONSTRUCTION	Direct Acting	
BODY MATERIAL	Stainless steel	
PROTECTION CLASS	IP65	
MANUAL OPERATOR	2/2, 3/2	

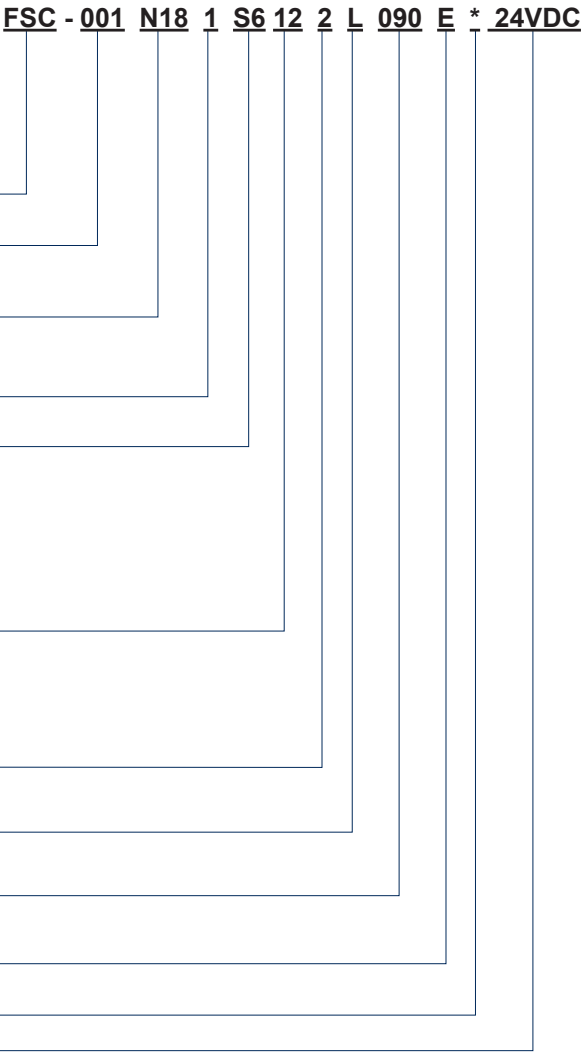
Functional Safety certification is not applicable with manual operator type.

ORDERING GUIDE

Available in repairing kits and accessories, please contact PRIMOFLO for more information.

001 series (Type 1) Selection Guide :

COIL CATEGORY	FSC - FSC Coil, Flying Leads SSC - SSC Coil, DIN connector
PRODUCT SERIES	001 - 001
PORT SIZE	N18 - NPT 1/8" N14 - NPT 1/4" G18 - G 1/8" G14 - G 1/4"
BODY SIZE	1 - 37mm
BODY MATERIAL	Omit - SS304 Stainless Steel S6 - SS316 Stainless Steel
ORIFICE SIZE	12 - 1.2mm 16 - 1.6mm 20 - 2.0mm 22 - 2.2mm 32 - 3.2mm 40 - 4.0mm 48 - 4.8mm 56 - 5.6mm 63 - 6.3mm 71 - 7.1mm
FUNCTION TYPE	1 - 2/2 2 - 3/2
SEALING MATERIAL	L - LNBR F - FKM
POWER CONSUMPTION	- 9W 090 (The Rest Consumption Power by three digits, e.g.090 as 9W) (Note1)
TECHNIACAL REQUIREMENT	E - Comply with ATEX/IEC (The certification system of the European)
SPECIAL OPTIONS	* - Special on Request
VOLTAGE	24VDC 110VDC 24VAC 220VAC**



Note1: Any special requirement on others power consumption, please contact with PRIMOFLO.

*Special options are available upon the requirement.

**ATEX/IEC certified is only available for 24VDC, 220VAC.

ADDITIONAL OPTIONS

- Special options are available upon the requirement

SPECIFICATIONS

Pipe Size (ins.)	Orifice Size (mm)	Flow Coefficient Kv(m³/h)	Operating Pressure Differential(bar)			Media Temperature °C		Rated Power(W)		Catalog Number
			Min.	Max.		Min.AC	Max.DC	AC	DC	Single Coil
				AC	DC					
2/2 Spring Return (Single Coil)										
1/8	1.2	0.05	0	53	17	60	60	10	12	001-*18-1-12
1/4			0	53	17	60	60	10	12	001-*14-1-12
1/8	1.6	0.08	0	36	12	60	60	10	12	001-*18-1-16
1/4			0	36	12	60	60	10	12	001-*14-1-16
1/8	2.0	0.11	0	26	8	60	60	10	12	001-*18-1-20
1/4			0	26	8	60	60	10	12	001-*14-1-20
1/8	2.4	0.14	0	20	6	82	82	10	12	001-*18-1-24
1/4			0	20	6	82	82	10	12	001-*14-1-24
1/8	3.2	0.28	0	11	4	82	82	10	12	001-*18-1-32
1/4			0	11	4	82	82	10	12	001-*14-1-32
1/8	4.0	0.43	0	6	3	82	82	10	12	001-*18-1-40
1/4			0	6	3	82	82	10	12	001-*14-1-40
1/4	5.6	0.63	0	3	1.5	82	82	10	12	001-*14-1-56
1/4	7.1	0.76	0	2	1	82	82	10	12	001-*14-1-71

Notes 1:The maximum operating pressure of the valve body with the same orifice depends on the type of coil.
Notes 2:1/8" pipe size orifice max.up to 4mm.

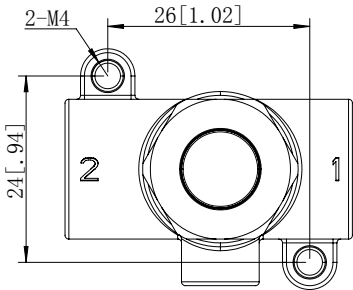
ELECTRICAL CHARACTERISTICS

Coil insulation class H
Standard voltages DC (≡) 24V -110V; Allowable voltage variation -15%~+10%
AC (~) 24V-220V-230V; Other voltages are available on request

Coil Category	Power Ratings			Operator Ambient Temperature Range (°C)	Safety Code	Protection Class	Cable Entry
	24V/ DC(W)	220V/AC(VA)					
		Inrush	Holding				
FSC	12	10	10	-40 ~ +65	EN60730	IP65	Flying Leads
SSC	12	10	10	-40 ~ +65	EN60730	IP65*	EN175301-803A (ISO 4400)

* SSC coils with electrical plug connector are required in protection class IP65
Other coil types are available on request.

INSTALLATION DIMENSIONS

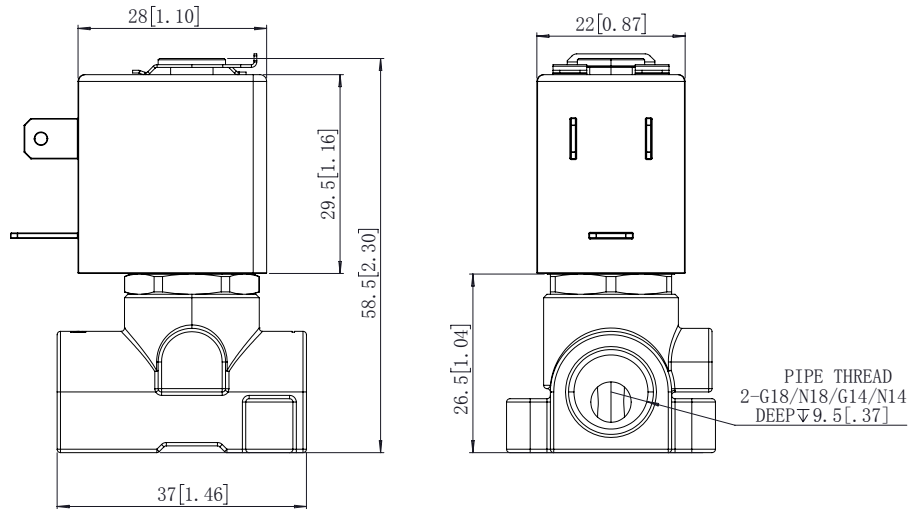


DIMENSIONS: mm[inches]



FSC/SSC Coil

Construction size: 1
Basic catalogue number:
FSC/SSC*-001***-1



INSTALLATION

Check nameplate for correct catalog number, pressure, voltage, frequency, and service. Never apply incompatible fluids or exceed pressure rating of the valve. Installation and valve maintenance to be performed by qualified personnel. Never apply incompatible fluids or exceed pressure rating of the valve. Contact PRIMOFLO or your supplier for more information about this valve or other valve options if this valve is not suitable for your application

Installation/maintenance instructions are included with each valve

- The solenoid valves can be mounted in any position without affecting operation
- The mounting holes are provided in the valve body
- Threaded pipe connection identifier is N = NPT (ANSI 1.20.3); G = G (ISO 228/1)
- Declarations of conformity are available on request
- Ex db Prefix "DSC/RSC/DHC/RHC enclosure is provided with a 1/2" NPT threaded entry hole, M20 x 1,5 (prefix "M") is optional.

For more information, please visit www.primoflo.com.

While this information is true and believed to be accurate, PRIMOFLO does not guarantee satisfactory results based on it. Nothing contained herein shall be construed as an express or implied warranty or representation regarding the performance, merchantability, suitability, or any other matter of the products, nor as a recommendation to use any products or processes in conflict with any patent. PRIMOFLO reserves the right to change or improve the design or specifications of the products described herein without prior notice.

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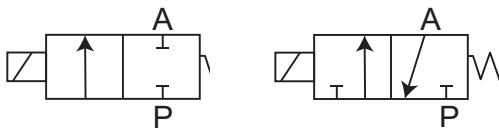
If you need any further information or have any questions, please contact PRIMOFLO.

001 SERIES (Type 2)

PRIMO FLO 001 series solenoid valves are compact, direct acting valves offering a long continuous cycling life in a wide range of applications. It can be opened without minimum operating , with excellent control and reliable performance, the 3/2-way , 2/2 –way valves are capable of handling a variety of fluids such as air, water, oil, gases, and other gases/ liquids compatible with the sealing material used. With the high-quality materials, ensuring that they can withstand the rigors of high-pressure fluid control. It’ s an ideal choice for various industries, such as car wash systems, dish-washing and laundry equipment, pumps, compressors, boilers, burners, food processing and many others.



FUNCTION



APPLICATIONS

- Oil & Gas
- Industrial Water Control
- Power
- Medical & Life Science
- Food & Beverage

For uncertain applications or hazardous operating conditions, please contact PRIMO FLO or suppliers for technical support.

FEATURES AND BENEFITS

- The valves are certified according to IEC 61508 Functional Safety data and have SIL-3 capability (TÜV)
- Direct acting construction
- Reliable, proven design with high flow
- Wide pressure ranges and no minimum operating pressure required
- Available in explosion-proof & None explosion-proof operators
- The explosion-proof DC coils are equipped with a built-in integrated surge protection device.
- Coils have class H insulation material

MATERIALS

MATERIALS IN CONTACT WITH FLUID	
BODY	Stainless steel
END CAP	Stainless steel
CORE AND ARMATURE	Stainless steel
SPRING	Stainless steel
SHADING COIL	Copper
SEALING	LNBR/FKM

Other materials on request.

GENERAL

ITEM	DETAIL	
MEDIA	Gas, Water, Light oil	
AMBIENT TEMPERATURE RANGES	Standard	-40°C ~ +65°C
	Options	-15°C ~ +82°C
MEDIA TEMPERATURE	Standard	-40°C ~ +60°C
	Options	-15°C ~ +120°C
OPERATING PRESSURE DIFFERENTIAL	0 ~ 53 bar	
FLOW COEFFICIENT	0.05 ~ 0.76 Kv m³/h	
APPLICATION ENVIRONMENT	Normal Corrosive Area	
INSTALLATION	Any Position	
SEAL MATERIAL	Standard	LNBR
	Options	VMQ/FKM
VALVE CONSTRUCTION	Direct Acting	
BODY MATERIAL	Stainless steel	
PROTECTION CLASS	IP65/IP66/IP67	
MANUAL OPERATOR	2/2, 3/2	

Functional Safety certification is not applicable with manual operator type.

ORDERING GUIDE

Available in repairing kits and accessories, please contact PRIMOFLO for more information.

DSCA M - 001 N18 2 S6 12 2 L 090 E * - 24VDC

001 series (Type 2) Selection Guide :

COIL CATEGORY	GSC - GSC DIN connector (Non-Ex coil) MSC - MSC Ex Coil, Flying leads DSCA - DSC Junction-Box Ex Coil, Aluminum DSCS - DSC Junction-Box Ex Coil, Stainless Steel RSCA - RSC Refined Chamber Ex Coil, Aluminum RSCS - RSC Refined Chamber Ex Coil, Stainless Steel	←
CABLE ENTRY	Omit - 1/2" NPT(Default) M - M20*1.5	←
PRODUCT SERIES	001 - 001	←
PORT SIZE	N18 - NPT 1/8" N14 - NPT 1/4" N38 - NPT 3/8" G18 - G 1/8" G14 - G 1/4" G38 - G 3/8" M10 - M10 M12 - M12	←
BODY SIZE	2 - 49mm	←
BODY MATERIAL	Omit - SS304 Stainless Steel S6 - SS316 Stainless Steel	←
ORIFICE SIZE	12 - 1.2mm 16 - 1.6mm 20 - 2.0mm 22 - 2.2mm 32 - 3.2mm 40 - 4.0mm 48 - 4.8mm 56 - 5.6mm 63 - 6.3mm 71 - 7.1mm	←
FUNCTION TYPE	1 - 2/2 2 - 3/2	←
SEALING MATERIAL	L - LNBR F - FKM	←
POWER CONSUMPTION	090 - 9W(Note1) (The Rest Consumption Power by three digits, e.g.090 as 9W)	←
TECHNIACAL REQUIREMENT	E - Comply with ATEX/IEC (The certification system of the European)	←
SPECIAL OPTIONS	* - Special on Request	←
VOLTAGE	24VDC 110VDC 24VAC 220VAC**	←

Note1: Any special requirement on others power consumption, please contact with PRIMOFLO.

*Special options are available upon the requirement.

**ATEX/IEC certified is only available for 24VDC, 220VAC.

ADDITIONAL OPTIONS

- Special options are available upon the requirement

SPECIFICATIONS

Pipe Size (ins.)	Orifice Size (mm)	Flow Coefficient Kv(m³/h)	Operating Pressure Differential(bar)			Media Temperature °C		Rated Power(W)		Catalog Number
			Min.	Max.		Min.AC	Max.DC	AC	DC	Single Coil
				AC	DC					
2/2 Spring Return (Single Coil)										
1/8	1.2	0.05	0	36	-	60	-	6.5	-	001- 18-2-12
1/8	1.2	0.05	0	72	-	60	-	10	-	001- 18-2-12
1/8	1.2	0.05	0	-	40	-	60	-	10.5	001- 18-2-12
1/8	1.2	0.05	0	-	70	-	60	-	20.0	001- 18-2-12
1/4	1.2	0.05	0	36	-	60	-	6.5	-	001- 14-2-12
1/4	1.2	0.05	0	72	-	60	-	10	-	001- 14-2-12
1/4	1.2	0.05	0	-	40	-	60	-	10.5	001- 14-2-12
1/4	1.2	0.05	0	-	70	-	60	-	20.0	001- 14-2-12
1/8	1.6	0.08	0	20	-	60	-	6.5	-	001- 18-2-16
1/8	1.6	0.08	0	57	-	60	-	10	-	001- 18-2-16
1/8	1.6	0.08	0	-	23	-	60	-	10.5	001- 18-2-16
1/8	1.6	0.08	0	-	46	-	60	-	20.0	001- 18-2-16
1/4	1.6	0.08	0	20	-	60	-	6.5	-	001- 14-2-16
1/4	1.6	0.08	0	57	-	60	-	10	-	001- 14-2-16
1/4	1.6	0.08	0	-	23	-	60	-	10.5	001- 14-2-16
1/4	1.6	0.08	0	-	46	-	60	-	20.0	001- 14-2-16
1/8	2.0	0.11	0	13	-	60	-	6.5	-	001- 18-2-20
1/8	2.0	0.11	0	46	-	60	-	10	-	001- 18-2-20
1/8	2.0	0.11	0	-	19	-	60	-	10.5	001- 18-2-20
1/8	2.0	0.11	0	-	37	-	60	-	20.0	001- 18-2-20
1/4	2.0	0.11	0	13	-	60	-	6.5	-	001- 14-2-20
1/4	2.0	0.11	0	46	-	60	-	10	-	001- 14-2-20
1/4	2.0	0.11	0	-	19	-	60	-	10.5	001- 14-2-20
1/4	2.0	0.11	0	-	37	-	60	-	20.0	001- 14-2-20
1/8	2.4	0.14	0	9	-	82	-	6.5	-	001- 18-2-24
1/8	2.4	0.14	0	38	-	82	-	10	-	001- 18-2-24
1/8	2.4	0.14	0	-	13	-	82	-	10.5	001- 18-2-24
1/8	2.4	0.14	0	-	29	-	82	-	20.0	001- 18-2-24
1/4	2.4	0.14	0	9	-	82	-	6.5	-	001- 14-2-24
1/4	2.4	0.14	0	38	-	82	-	10	-	001- 14-2-24
1/4	2.4	0.14	0	-	13	-	82	-	10.5	001- 14-2-24
1/4	2.4	0.14	0	-	29	-	82	-	20.0	001- 14-2-24
1/8	3.2	0.28	0	5	-	82	-	6.5	-	001- 18-2-32
1/8	3.2	0.28	0	20	-	82	-	10	-	001- 18-2-32
1/8	3.2	0.28	0	-	8	-	82	-	10.5	001- 18-2-32
1/8	3.2	0.28	0	-	19	-	82	-	20.0	001- 18-2-32
1/4	3.2	0.28	0	5	-	82	-	6.5	-	001- 14-2-32
1/4	3.2	0.28	0	20	-	82	-	10	-	001- 14-2-32
1/4	3.2	0.28	0	-	8	-	82	-	10.5	001- 14-2-32
1/4	3.2	0.28	0	-	19	-	82	-	20.0	001- 14-2-32
1/8	4.0	0.43	0	3	-	82	-	6.5	-	001- 18-2-40
1/8	4.0	0.43	0	12	-	82	-	10	-	001- 18-2-40
1/8	4.0	0.43	0	-	5	-	82	-	10.5	001- 18-2-40
1/8	4.0	0.43	0	-	14	-	82	-	20.0	001- 18-2-40
1/4	4.0	0.43	0	3	-	82	-	6.5	-	001- 14-2-40
1/4	4.0	0.43	0	12	-	82	-	10	-	001- 14-2-40
1/4	4.0	0.43	0	-	5	-	82	-	10.5	001- 14-2-40
1/4	4.0	0.43	0	-	14	-	82	-	20.0	001- 14-2-40

Pipe Size (ins.)	Orifice Size (mm)	Flow Coefficient Kv(m³/h)	Operating Pressure Differential(bar)			Media Temperature °C		Rated Power(W)		Catalog Number
			Min.	Max.		Min.AC	Max.DC	AC	DC	Single Coil
				AC	DC					
2/2 Spring Return (Single Coil)										
1/4	5.6	0.63	0	1.5	-	82	-	6.5	-	001- 14-2-56
1/4	5.6	0.63	0	5.5	-	82	-	10	-	001- 14-2-56
1/4	5.6	0.63	0	-	2.5	-	82	-	10.5	001- 14-2-56
1/4	5.6	0.63	0	-	8	-	82	-	20.0	001- 14-2-56
1/4	7.1	0.76	0	1	-	82	-	6.5	-	001- 14-2-71
1/4	7.1	0.76	0	3	-	82	-	10	-	001- 14-2-71
1/4	7.1	0.76	0	-	1.5	-	82	-	10.5	001- 14-2-71
1/4	7.1	0.76	0	-	6	-	82	-	20.0	001- 14-2-71
3/8	3.2	0.28	0	5	-	82	-	6.5	-	001- 38-2-32
3/8	3.2	0.28	0	20	-	82	-	10	-	001- 38-2-32
3/8	3.2	0.28	0	-	8	-	82	-	10.5	001- 38-2-32
3/8	3.2	0.28	0	-	19	-	82	-	20.0	001- 38-2-32
3/8	4.0	0.43	0	3	-	82	-	6.5	-	001- 38-2-40
3/8	4.0	0.43	0	12	-	82	-	10	-	001- 38-2-40
3/8	4.0	0.43	0	-	5	-	82	-	10.5	001- 38-2-40
3/8	4.0	0.43	0	-	14	-	82	-	20.0	001- 38-2-40
3/8	5.6	0.63	0	1.5	-	82	-	6.5	-	001- 38-2-56
3/8	5.6	0.63	0	5	-	82	-	10	-	001- 38-2-56
3/8	5.6	0.63	0	-	2.5	-	82	-	10.5	001- 38-2-56
3/8	5.6	0.63	0	-	8	-	82	-	20.0	001- 38-2-56
3/8	7.1	0.76	0	1	-	82	-	6.5	-	001- 38-2-71
3/8	7.1	0.76	0	3	-	82	-	10	-	001- 38-2-71
3/8	7.1	0.76	0	-	1.5	-	82	-	10.5	001- 38-2-71
3/8	7.1	0.76	0	-	6	-	82	-	20.0	001- 38-2-71

Notes 1:The maximum operating pressure of the valve body with the same orifice depends on the type of coil.
Notes 2:1/8"pipe size orifice max.up to 4mm.

ELECTRICAL CHARACTERISTICS

Coil insulation class H
Standard voltages DC (≡) 24V -110V; Allowable voltage variation -15%~+10%
 AC (∼) 24V-220V-230V; Other voltages are available on request

Coil Category	Power Ratings			Operator Ambient Temperature Range (°C)	Safety Code	Protection Class	Cable Entry
	24V/DC(W)	220V/AC(VA)					
		Inrush	Holding				
GSC	10.5	6.5	6.5	-40 ~ +65	EN60730	IP65*	EN175301-803A (ISO 4400)
	20.0	10.0	10.0	-40 ~ +65	EN60730	IP65*	EN175301-803A (ISO 4400)
MSC	10.5	/	/	-40 ~ +35	Ex mb IIC T5 Gb Ex mb IIIC T100°C Db	IP66	Conduit 1/2" NPT
	10.5	/	/	-40 ~ +65	Ex mb IIC T4 Gb Ex mb IIIC T135°C Db	IP66	Conduit 1/2" NPT
	20.0	/	/	-40 ~ +40	Ex mb IIC T4 Gb Ex mb IIIC T135°C Db	IP66	Conduit 1/2" NPT
	20.0	/	/	-40 ~ +60	Ex mb IIC T3 Gb Ex mb IIIC T150°C Db	IP66	Conduit 1/2" NPT
	/	6.5	6.5	-40 ~ +40	Ex mb IIC T5 Gb Ex mb IIIC T100°C Db	IP66	Conduit 1/2" NPT

Coil Category	Power Ratings			Operator Ambient Temperature Range (°C)	Safety Code	Protection Class	Cable Entry
	24V/DC(W)	220V/AC(VA)					
		Inrush	Holding				
MSC	/	6.5	6.5	-40 ~ +65	Ex mb IIC T4 Gb Ex mb IIIC T135°C Db	IP66	Conduit 1/2" NPT
	/	10.0	10.0	-40 ~ +55	Ex mb IIC T3 Gb Ex mb IIIC T170°C Db	IP66	Conduit 1/2" NPT
DSC RSC	10.5	/	/	-40 ~ +50	Ex db IIC T5 Gb Ex tb IIIC T100°C Db	IP66/IP67	1/2" NPT or M20 X1.5
	10.5	/	/	-40 ~ +65	Ex db IIC T4 Gb Ex tb IIIC T135°C Db	IP66/IP67	1/2" NPT or M20 X1.5
	20.0	/	/	-40 ~ +35	Ex db IIC T5 Gb Ex tb IIIC T100°C Db	IP66/IP67	1/2" NPT or M20 X1.5
	20.0	/	/	-40 ~ +65	Ex db IIC T4 Gb Ex tb IIIC T135°C Db	IP66/IP67	1/2" NPT or M20 X1.5
	/	6.5	6.5	-40 ~ +50	Ex db IIC T5 Gb Ex tb IIIC T100°C Db	IP66/IP67	1/2" NPT or M20 X1.5
	/	6.5	6.5	-40 ~ +65	Ex db IIC T4 Gb Ex tb IIIC T135°C Db	IP66/IP67	1/2" NPT or M20 X1.5
	/	10.0	10.0	-40 ~ +50	Ex db IIC T3 Gb Ex tb IIIC T150°C Db	IP66/IP67	1/2" NPT or M20 X1.5

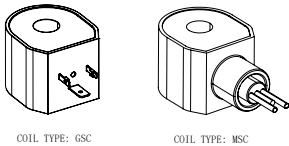
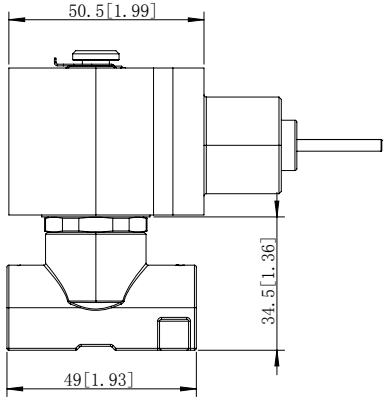
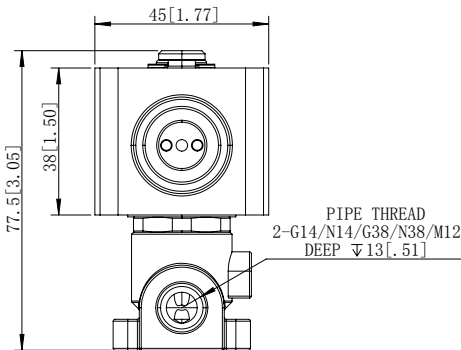
* GSC coils with electrical plug connector are required in protection class IP65
Other coil types are available on request.

DIMENSIONS: mm[inches]



GSC/MSC Coil

Construction size: 2
Basic catalogue number :
GSC/MSC*-001***-2

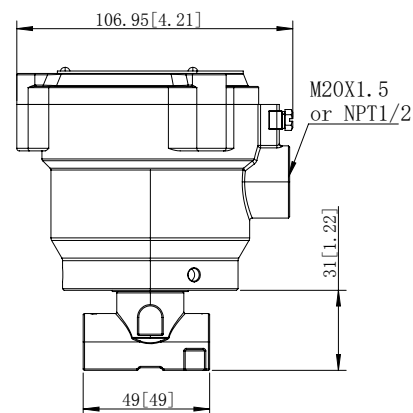
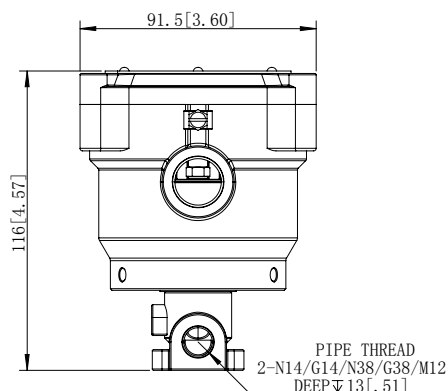


DIMENSIONS: mm[inches]



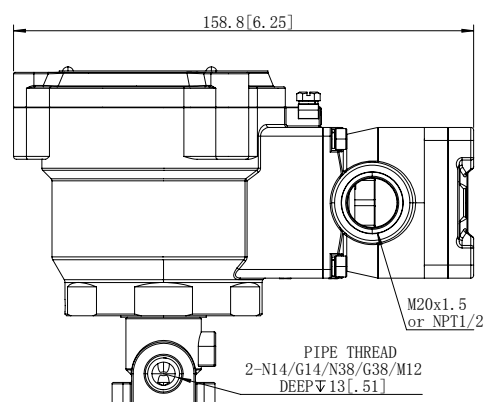
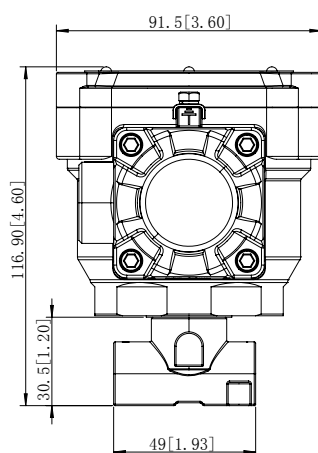
DSC Coil

Construction size: 2
Basic catalogue number :
DSC*-001***-2

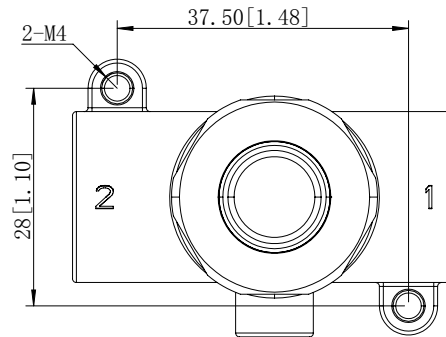


RSC Coil

Construction size: 2
Basic catalogue number :
RSC*-001***-2



INSTALLATION DIMENSIONS



INSTALLATION

Check nameplate for correct catalog number, pressure, voltage, frequency, and service. Never apply incompatible fluids or exceed pressure rating of the valve. Installation and valve maintenance to be performed by qualified personnel. Never apply incompatible fluids or exceed pressure rating of the valve. Contact PRIMOFLO or your supplier for more information about this valve or other valve options if this valve is not suitable for your application

Installation/maintenance instructions are included with each valve

- The solenoid valves can be mounted in any position without affecting operation
- The mounting holes are provided in the valve body
- Threaded pipe connection identifier is N = NPT (ANSI 1.20.3); G = G (ISO 228/1)
- Declarations of conformity are available on request
- Ex db Prefix "DSC/RSC/DHC/RHC enclosure is provided with a 1/2" NPT threaded entry hole, M20 x 1,5 (prefix "M") is optional.

For more information, please visit www.primoflo.com.

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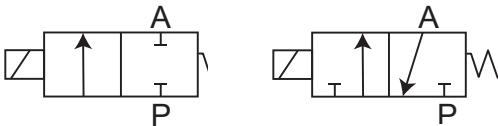
If you need any further information or have any questions, please contact PRIMOFLO.

001 SERIES (Type 3)

PRIMO FLO 001 series solenoid valves are compact, direct acting valves offering a long continuous cycling life in a wide range of applications. It can be opened without minimum operating , with excellent control and reliable performance, the 3/2-way , 2/2 –way valves are capable of handling a variety of fluids such as air, water, oil, gases, and other gases/ liquids compatible with the sealing material used. With the high-quality materials, ensuring that they can withstand the rigors of high-pressure fluid control. It’ s an ideal choice for various industries, such as car wash systems, dish-washing and laundry equipment, pumps, compressors, boilers, burners, food processing and many others.



FUNCTION



APPLICATIONS

- Oil & Gas
- Industrial Water Control
- Power
- Medical & Life Science
- Food & Beverage

FEATURES AND BENEFITS

- The valves are certified according to IEC 61508 Functional Safety data and have SIL-3 capability (TÜV)
- Direct acting construction
- Reliable, proven design with high flow
- Wide pressure ranges and no minimum operating pressure required
- Available in explosion-proof & None explosion-proof operators
- The explosion-proof DC coils are equipped with a built-in integrated surge protection device.
- Coils have class H insulation material

MATERIALS

MATERIALS IN CONTACT WITH FLUID	
BODY	Stainless steel
END CAP	Stainless steel
CORE AND ARMATURE	Stainless steel
SPRING	Stainless steel
SHADING COIL	Copper
SEALING	LNBR/FKM

Other materials on request.

GENERAL

ITEM	DETAIL	
MEDIA	Gas, Water, Light oil	
AMBIENT TEMPERATURE RANGES	Standard	-40°C ~ +65°C
	Options	-15°C ~ +82°C
MEDIA TEMPERATURE	Standard	-40°C ~ +60°C
	Options	-15°C ~ +120°C
OPERATING PRESSURE DIFFERENTIAL	0 ~ 70 bar	
FLOW COEFFICIENT	0.05 ~ 0.76 Kv m³/h	
APPLICATION ENVIRONMENT	Normal Corrosive Area	
INSTALLATION	Any Position	
SEAL MATERIAL	Standard	LNBR
	Options	VMQ/FKM
VALVE CONSTRUCTION	Direct Acting	
BODY MATERIAL	Stainless steel	
PROTECTION CLASS	IP65/IP66/IP67	
MANUAL OPERATOR	2/2, 3/2	

Functional Safety certification is not applicable with manual operator type.

ORDERING GUIDE

Available in repairing kits and accessories, please contact PRIMOFLO for more information.

001 series (Type 3) Selection Guide :

COIL CATEGORY	GHC - GHC DIN connector (Non-Ex coil) MHC - MHC Ex Coil, Flying leads DHCA - DHC Junction-Box Ex Coil, Aluminum DHCS - DHC Junction-Box Ex Coil, Stainless Steel RHCA - RHC Refined Chamber Ex Coil, Aluminum RHCS - RHC Refined Chamber Ex Coil, Stainless Steel
CABLE ENTRY	Omit - 1/2" NPT(Default) M - M20*1.5
PRODUCT SERIES	001 - 001
PORT SIZE	N18 - NPT 1/8" N14 - NPT 1/4" N38 - NPT 3/8" G18 - G 1/8" G14 - G 1/4" G38 - G 3/8" M10 - M10 M12 - M12
BODY SIZE	2 - 49mm
BODY MATERIAL	Omit - SS304 Stainless Steel S6 - SS316 Stainless Steel
ORIFICE SIZE	12 - 1.2mm 16 - 1.6mm 20 - 2.0mm 22 - 2.2mm 32 - 3.2mm 40 - 4.0mm 48 - 4.8mm 56 - 5.6mm 63 - 6.3mm 71 - 7.1mm
FUNCTION TYPE	1 - 2/2 2 - 3/2
SEALING MATERIAL	L - LNBR F - FKM
POWER CONSUMPTION	090 - 9W(Note1) (The Rest Consumption Power by three digits, e.g.090 as 9W)
TECHNIACAL REQUIREMENT	E - Comply with ATEX/IEC (The certification system of the European)
SPECIAL OPTIONS	* - Special on Request
VOLTAGE	24VDC 110VDC 24VAC 220VAC**

DHCA M - 001

N18

2

S6

12

2

L

090

E

*

- 24VDC

Note1: Any special requirement on others power consumption, please contact with PRIMOFLO.
*Special options are available upon the requirement.
**ATEX/IEC certified is only available for 24VDC, 220VAC.

ADDITIONAL OPTIONS

- Special options are available upon the requirement

SPECIFICATIONS

Pipe Size (ins.)	Orifice Size (mm)	Flow Coefficient Kv(m³/h)	Operating Pressure Differential(bar)			Media Temperature °C		Rated Power(W)		Catalog Number
			Min.	Max.		Min.AC	Max.DC	AC	DC	Single Coil
				AC	DC					
2/2 Spring Return (Single Coil)										
1/8	1.2	0.05	0	4.5	-	60	-	3.5	-	001- 18-2-12
1/8	1.2	0.05	0	10	-	60	-	5	-	001- 18-2-12
1/8	1.2	0.05	0	34	-	60	-	10	-	001- 18-2-12
1/8	1.2	0.05	0	62	-	60	-	12	-	001- 18-2-12
1/8	1.2	0.05	0	-	12	-	60	-	6	001- 18-2-12
1/8	1.2	0.05	0	-	27	-	60	-	12	001- 18-2-12
1/8	1.2	0.05	0	-	52	-	60	-	20.0	001- 18-2-12
1/8	1.2	0.05	0	-	68	-	60	-	25.0	001- 18-2-12
1/4	1.2	0.05	0	4.5	-	60	-	3.5	-	001- 14-2-12
1/4	1.2	0.05	0	10	-	60	-	5	-	001- 14-2-12
1/4	1.2	0.05	0	34	-	60	-	10	-	001- 14-2-12
1/4	1.2	0.05	0	62	-	60	-	12	-	001- 14-2-12
1/4	1.2	0.05	0	-	12	-	60	-	6	001- 14-2-12
1/4	1.2	0.05	0	-	27	-	60	-	12	001- 14-2-12
1/4	1.2	0.05	0	-	52	-	60	-	20.0	001- 14-2-12
1/4	1.2	0.05	0	-	68	-	60	-	25.0	001- 14-2-12
1/8	1.6	0.08	0	4	-	60	-	3.5	-	001- 18-2-16
1/8	1.6	0.08	0	9	-	60	-	5	-	001- 18-2-16
1/8	1.6	0.08	0	29	-	60	-	10	-	001- 18-2-16
1/8	1.6	0.08	0	52	-	60	-	12	-	001- 18-2-16
1/8	1.6	0.08	0	-	10	-	60	-	6	001- 18-2-16
1/8	1.6	0.08	0	-	23	-	60	-	12	001- 18-2-16
1/8	1.6	0.08	0	-	45	-	60	-	20.0	001- 18-2-16
1/8	1.6	0.08	0	-	59	-	60	-	25.0	001- 18-2-16
1/4	1.6	0.08	0	4	-	60	-	3.5	-	001- 14-2-16
1/4	1.6	0.08	0	9	-	60	-	5	-	001- 14-2-16
1/4	1.6	0.08	0	29	-	60	-	10	-	001- 14-2-16
1/4	1.6	0.08	0	52	-	60	-	12	-	001- 14-2-16
1/4	1.6	0.08	0	-	10	-	60	-	6	001- 14-2-16
1/4	1.6	0.08	0	-	23	-	60	-	12	001- 14-2-16
1/4	1.6	0.08	0	-	45	-	60	-	20.0	001- 14-2-16
1/4	1.6	0.08	0	-	59	-	60	-	25.0	001- 14-2-16
1/8	2.0	0.11	0	3.5	-	60	-	3.5	-	001- 18-2-20
1/8	2.0	0.11	0	7	-	60	-	5	-	001- 18-2-20
1/8	2.0	0.11	0	25	-	60	-	10	-	001- 18-2-20
1/8	2.0	0.11	0	44	-	60	-	12	-	001- 18-2-20
1/8	2.0	0.11	0	-	9	-	60	-	6	001- 18-2-20
1/8	2.0	0.11	0	-	20	-	60	-	12	001- 18-2-20
1/8	2.0	0.11	0	-	39	-	60	-	20.0	001- 18-2-20
1/8	2.0	0.11	0	-	52	-	60	-	25.0	001- 18-2-20
1/4	2.0	0.11	0	3.5	-	60	-	3.5	-	001- 14-2-20
1/4	2.0	0.11	0	7	-	60	-	5	-	001- 14-2-20
1/4	2.0	0.11	0	25	-	60	-	10	-	001- 14-2-20
1/4	2.0	0.11	0	44	-	60	-	12	-	001- 14-2-20
1/4	2.0	0.11	0	-	9	-	60	-	6	001- 14-2-20
1/4	2.0	0.11	0	-	20	-	60	-	12	001- 14-2-20
1/4	2.0	0.11	0	-	39	-	60	-	20.0	001- 14-2-20
1/4	2.0	0.11	0	-	52	-	60	-	25.0	001- 14-2-20

Pipe Size (ins.)	Orifice Size (mm)	Flow Coefficient Kv(m³/h)	Operating Pressure Differen- tial(bar)			Media Temperature °C		Rated Power(W)		Catalog Number
			Min.	Max.		Min.AC	Max.DC	AC	DC	Single Coil
				AC	DC					
2/2 Spring Return (Single Coil)										
1/8	2.4	0.14	0	3	-	82	-	3.5	-	001- 18-2-24
1/8	2.4	0.14	0	6	-	82	-	5	-	001- 18-2-24
1/8	2.4	0.14	0	21	-	82	-	10	-	001- 18-2-24
1/8	2.4	0.14	0	36	-	82	-	12	-	001- 18-2-24
1/8	2.4	0.14	0	-	8	-	82	-	6	001- 18-2-24
1/8	2.4	0.14	0	-	18	-	82	-	12	001- 18-2-24
1/8	2.4	0.14	0	-	35	-	82	-	20.0	001- 18-2-24
1/8	2.4	0.14	0	-	46	-	82	-	25.0	001- 18-2-24
1/4	2.4	0.14	0	3	-	82	-	3.5	-	001- 14-2-24
1/4	2.4	0.14	0	6	-	82	-	5	-	001- 14-2-24
1/4	2.4	0.14	0	21	-	82	-	10	-	001- 14-2-24
1/4	2.4	0.14	0	36	-	82	-	12	-	001- 14-2-24
1/4	2.4	0.14	0	-	8	-	82	-	6	001- 14-2-24
1/4	2.4	0.14	0	-	18	-	82	-	12	001- 14-2-24
1/4	2.4	0.14	0	-	35	-	82	-	20.0	001- 14-2-24
1/4	2.4	0.14	0	-	46	-	82	-	25.0	001- 14-2-24
1/8	3.2	0.28	0	2.5	-	82	-	3.5	-	001- 18-2-32
1/8	3.2	0.28	0	5	-	82	-	5	-	001- 18-2-32
1/8	3.2	0.28	0	15	-	82	-	10	-	001- 18-2-32
1/8	3.2	0.28	0	25	-	82	-	12	-	001- 18-2-32
1/8	3.2	0.28	0	-	5	-	82	-	6	001- 18-2-32
1/8	3.2	0.28	0	-	12	-	82	-	12	001- 18-2-32
1/8	3.2	0.28	0	-	24	-	82	-	20.0	001- 18-2-32
1/8	3.2	0.28	0	-	32	-	82	-	25.0	001- 18-2-32
1/4	3.2	0.28	0	2.5	-	82	-	3.5	-	001- 14-2-32
1/4	3.2	0.28	0	5	-	82	-	5	-	001- 14-2-32
1/4	3.2	0.28	0	15	-	82	-	10	-	001- 14-2-32
1/4	3.2	0.28	0	25	-	82	-	12	-	001- 14-2-32
1/4	3.2	0.28	0	-	5	-	82	-	6	001- 14-2-32
1/4	3.2	0.28	0	-	12	-	82	-	12	001- 14-2-32
1/4	3.2	0.28	0	-	24	-	82	-	20.0	001- 14-2-32
1/4	3.2	0.28	0	-	32	-	82	-	25.0	001- 14-2-32
1/8	4.0	0.43	0	2	-	82	-	3.5	-	001- 18-2-40
1/8	4.0	0.43	0	3	-	82	-	5	-	001- 18-2-40
1/8	4.0	0.43	0	10	-	82	-	10	-	001- 18-2-40
1/8	4.0	0.43	0	11	-	82	-	12	-	001- 18-2-40
1/8	4.0	0.43	0	-	3	-	82	-	6	001- 18-2-40
1/8	4.0	0.43	0	-	8	-	82	-	12	001- 18-2-40
1/8	4.0	0.43	0	-	16	-	82	-	20.0	001- 18-2-40
1/8	4.0	0.43	0	-	22	-	82	-	25.0	001- 18-2-40
1/4	4.0	0.43	0	2	-	82	-	3.5	-	001- 14-2-40
1/4	4.0	0.43	0	3	-	82	-	5	-	001- 14-2-40
1/4	4.0	0.43	0	10	-	82	-	10	-	001- 14-2-40
1/4	4.0	0.43	0	11	-	82	-	12	-	001- 14-2-40
1/4	4.0	0.43	0	-	3	-	82	-	6	001- 14-2-40
1/4	4.0	0.43	0	-	8	-	82	-	12	001- 14-2-40
1/4	4.0	0.43	0	-	16	-	82	-	20.0	001- 14-2-40
1/4	4.0	0.43	0	-	22	-	82	-	25.0	001- 14-2-40
1/4	5.6	0.63	0	1	-	82	-	3.5	-	001- 14-2-56
1/4	5.6	0.63	0	1.5	-	82	-	5	-	001- 14-2-56

Pipe Size (ins.)	Orifice Size (mm)	Flow Coefficient Kv(m³/h)	Operating Pressure Differential(bar)			Media Temperature °C		Rated Power(W)		Catalog Number
			Min.	Max.		Min.AC	Max.DC	AC	DC	Single Coil
				AC	DC					
2/2 Spring Return (Single Coil)										
1/4	5.6	0.63	0	3	-	82	-	10	-	001- 14-2-56
1/4	5.6	0.63	0	4	-	82	-	12	-	001- 14-2-56
1/4	5.6	0.63	0	-	1.5	-	82	-	6	001- 14-2-56
1/4	5.6	0.63	0	-	4	-	82	-	12	001- 14-2-56
1/4	5.6	0.63	0	-	10	-	82	-	20.0	001- 14-2-56
1/4	5.6	0.63	0	-	13	-	82	-	25.0	001- 14-2-56
1/4	7.1	0.76	0	0.25	-	82	-	3.5	-	001- 14-2-71
1/4	7.1	0.76	0	0.5	-	82	-	5	-	001- 14-2-71
1/4	7.1	0.76	0	1	-	82	-	10	-	001- 14-2-71
1/4	7.1	0.76	0	1.5	-	82	-	12	-	001- 14-2-71
1/4	7.1	0.76	0	-	0.5	-	82	-	6	001- 14-2-71
1/4	7.1	0.76	0	-	2	-	82	-	12	001- 14-2-71
1/4	7.1	0.76	0	-	6	-	82	-	20.0	001- 14-2-71
1/4	7.1	0.76	0	-	10	-	82	-	25.0	001- 14-2-71
3/8	3.2	0.28	0	2.5	-	82	-	3.5	-	001- 38-2-32
3/8	3.2	0.28	0	5	-	82	-	5	-	001- 38-2-32
3/8	3.2	0.28	0	15	-	82	-	10	-	001- 38-2-32
3/8	3.2	0.28	0	25	-	82	-	12	-	001- 38-2-32
3/8	3.2	0.28	0	-	5	-	82	-	6	001- 38-2-32
3/8	3.2	0.28	0	-	12	-	82	-	12	001- 38-2-32
3/8	3.2	0.28	0	-	24	-	82	-	20.0	001- 38-2-32
3/8	3.2	0.28	0	-	32	-	82	-	25.0	001- 38-2-32
3/8	4.0	0.43	0	2	-	82	-	3.5	-	001- 38-2-40
3/8	4.0	0.43	0	3	-	82	-	5	-	001- 38-2-40
3/8	4.0	0.43	0	10	-	82	-	10	-	001- 38-2-40
3/8	4.0	0.43	0	11	-	82	-	12	-	001- 38-2-40
3/8	4.0	0.43	0	-	3	-	82	-	6	001- 38-2-40
3/8	4.0	0.43	0	-	8	-	82	-	12	001- 38-2-40
3/8	4.0	0.43	0	-	16	-	82	-	20.0	001- 38-2-40
3/8	4.0	0.43	0	-	22	-	82	-	25.0	001- 38-2-40
3/8	5.6	0.63	0	1	-	82	-	3.5	-	001- 38-2-56
3/8	5.6	0.63	0	1.5	-	82	-	5	-	001- 38-2-56
3/8	5.6	0.63	0	3	-	82	-	10	-	001- 38-2-56
3/8	5.6	0.63	0	4	-	82	-	12	-	001- 38-2-56
3/8	5.6	0.63	0	-	1.5	-	82	-	6	001- 38-2-56
3/8	5.6	0.63	0	-	4	-	82	-	12	001- 38-2-56
3/8	5.6	0.63	0	-	10	-	82	-	20.0	001- 38-2-56
3/8	5.6	0.63	0	-	13	-	82	-	25.0	001- 38-2-56
3/8	7.1	0.76	0	0.25	-	82	-	3.5	-	001- 38-2-71
3/8	7.1	0.76	0	0.5	-	82	-	5	-	001- 38-2-71
3/8	7.1	0.76	0	1	-	82	-	10	-	001- 38-2-71
3/8	7.1	0.76	0	1.5	-	82	-	12	-	001- 38-2-71
3/8	7.1	0.76	0	-	0.5	-	82	-	6	001- 38-2-71
3/8	7.1	0.76	0	-	2	-	82	-	12	001- 38-2-71
3/8	7.1	0.76	0	-	6	-	82	-	20.0	001- 38-2-71
3/8	7.1	0.76	0	-	10	-	82	-	25.0	001- 38-2-71

Notes 1: The maximum operating pressure of the valve body with the same orifice depends on the type of coil.
Notes 2: 1/8" pipe size orifice max. up to 4mm.

ELECTRICAL CHARACTERISTICS

Coil insulation class H
Standard voltages DC (=) 24V -110V; Allowable voltage variation -15%~+10%
AC (~) 24V-220V-230V; Other voltages are available on request

Coil Category	Power Ratings			Operator Ambient Temperature Range (°C)	Safety Code	Protection Class	Cable Entry
	24V/DC(W)	220V/AC(VA)					
		Inrush	Holding				
GHC	6.5	3.5	3.5	-40 ~ +65	EN60730	IP65*	EN175301-803A (ISO 4400)
	12	5	5	-40 ~ +65	EN60730	IP65*	EN175301-803A (ISO 4400)
	20	10	10	-40 ~ +65	EN60730	IP65*	EN175301-803A (ISO 4400)
	25	12	12	-40 ~ +65	EN60730	IP65*	EN175301-803A (ISO 4400)
MHC	6	/	/	-40 ~ +45	Ex mb IIC T6 Gb Ex mb IIIC T85°C Db	IP66	Conduit 1/2" NPT
	6	/	/	-40 ~ +60	Ex mb IIC T5 Gb Ex mb IIIC T100°C Db	IP66	Conduit 1/2" NPT
	6	/	/	-40 ~ +65	Ex mb IIC T4 Gb Ex mb IIIC T135°C Db	IP66	Conduit 1/2" NPT
	12	/	/	-40 ~ +65	Ex mb IIC T4 Gb Ex mb IIIC T135°C Db	IP66	Conduit 1/2" NPT
	20/25	/	/	-40 ~ +65	Ex mb IIC T4 Gb Ex mb IIIC T135°C Db	IP66	Conduit 1/2" NPT
	20/25	/	/	-40 ~ +50	Ex mb IIC T4 Gb Ex mb IIIC T135°C Db	IP66	Conduit 1/2" NPT
	/	10	10	-40 ~ +55	Ex mb IIC T5 Gb Ex mb IIIC T100°C Db	IP66	Conduit 1/2" NPT
	/	10	10	-40 ~ +65	Ex mb IIC T4 Gb Ex mb IIIC T135°C Db	IP66	Conduit 1/2" NPT
	/	12	12	-40 ~ +45	Ex mb IIC T5 Gb Ex mb IIIC T100°C Db	IP66	Conduit 1/2" NPT
	/	12	12	-40 ~ +65	Ex mb IIC T4 Gb Ex mb IIIC T135°C Db	IP66	Conduit 1/2" NPT
DHC RHC	6.0	/	/	-40 ~ +60	Ex db IIC T6 Gb Ex tb IIIC T85°C Db	IP66/IP67	1/2" NPT or M20 X1.5
	6.0	/	/	-40 ~ +65	Ex db IIC T5 Gb Ex tb IIIC T100°C Db	IP66/IP67	1/2" NPT or M20 X1.5
	12.0	/	/	-40 ~ +50	Ex db IIC T6 Gb Ex tb IIIC T85°C Db	IP66/IP67	1/2" NPT or M20 X1.5
	12.0	/	/	-40 ~ +65	Ex db IIC T5 Gb Ex tb IIIC T100°C Db	IP66/IP67	1/2" NPT or M20 X1.5
	20.0	/	/	-40 ~ +40	Ex db IIC T6 Gb Ex tb IIIC T85°C Db	IP66/IP67	1/2" NPT or M20 X1.5
	20.0	/	/	-40 ~ +55	Ex db IIC T5 Gb Ex tb IIIC T00°C Db	IP66/IP67	1/2" NPT or M20 X1.5
	20.0	/	/	-40 ~ +65	Ex db IIC T4 Gb Ex tb IIIC T35°C Db	IP66/IP67	1/2" NPT or M20 X1.5
	25.0	/	/	-40 ~ +50	Ex db IIC T5 Gb Ex tb IIIC T100°C Db	IP66/IP67	1/2" NPT or M20 X1.5
	25.0	/	/	-40 ~ +65	Ex db IIC T4 Gb Ex tb IIIC T135°C Db	IP66/IP67	1/2" NPT or M20 X1.5
	/	5.0/10.0	5.0/10.0	-40 ~ +50	Ex db IIC T6 Gb Ex tb IIIC T85°C Db	IP66/IP67	1/2" NPT or M20 X1.5
	/	5.0/10.0	5.0/10.0	-40 ~ +65	Ex db IIC T5 Gb Ex tb IIIC T100°C Db	IP66/IP67	1/2" NPT or M20 X1.5
	/	12.0	12.0	-40 ~ +45	Ex db IIC T6 Gb Ex tb IIIC T85°C Db	IP66/IP67	1/2" NPT or M20 X1.5
	/	12.0	12.0	-40 ~ +60	Ex db IIC T5 Gb Ex tb IIIC T100°C Db	IP66/IP67	1/2" NPT or M20 X1.5
	/	12.0	12.0	-40 ~ +65	Ex db IIC T4 Gb Ex tb IIIC T135°C Db	IP66/IP67	1/2" NPT or M20 X1.5

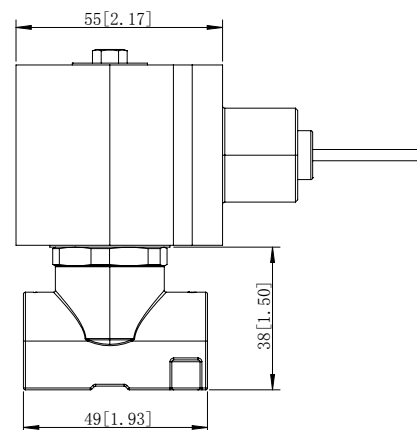
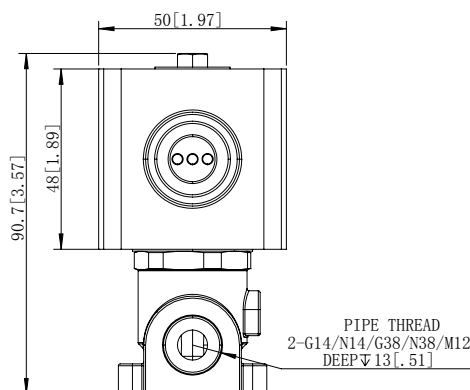
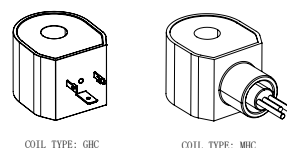
* GHC coils with electrical plug connector are required in protection class IP65
Other coil types are available on request.

DIMENSIONS: mm[inches]



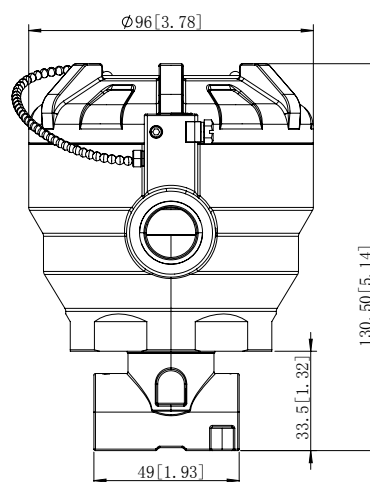
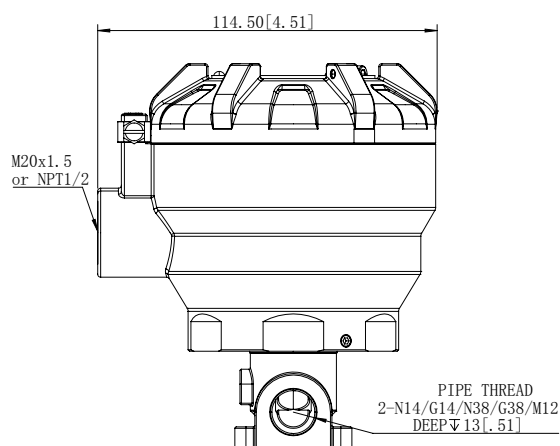
GHC/MHC Coil

Construction size: 3
Basic catalogue number :
GHC/MHC*-001***-3



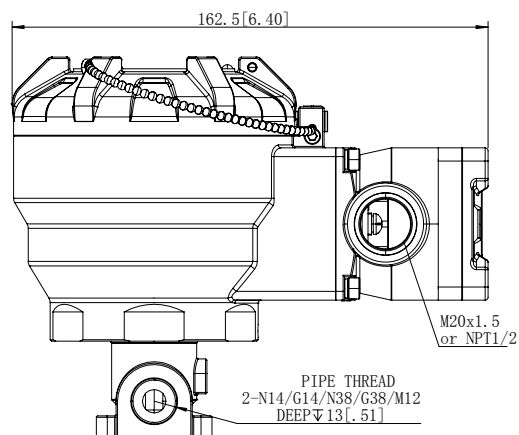
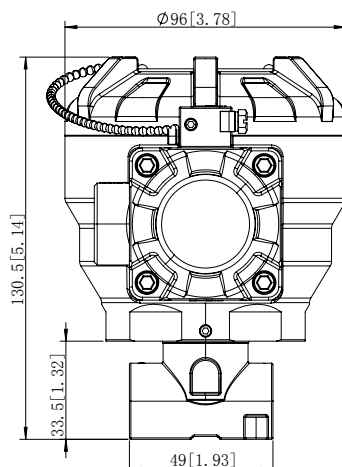
DHC Coil

Construction size: 3
Basic catalogue number :
DHC*-001***-3

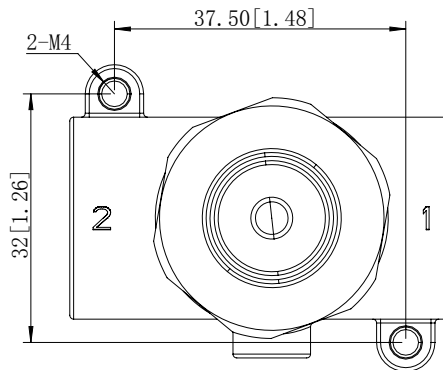


RHC Coil

Construction size: 3
Basic catalogue number :
RHC*-001***-3



INSTALLATION DIMENSIONS



INSTALLATION

Check nameplate for correct catalog number, pressure, voltage, frequency, and service. Never apply incompatible fluids or exceed pressure rating of the valve. Installation and valve maintenance to be performed by qualified personnel. Never apply incompatible fluids or exceed pressure rating of the valve. Contact PRIMOFLO or your supplier for more information about this valve or other valve options if this valve is not suitable for your application

Installation/maintenance instructions are included with each valve

- The solenoid valves can be mounted in any position without affecting operation
- The mounting holes are provided in the valve body
- Threaded pipe connection identifier is N = NPT (ANSI 1.20.3); G = G (ISO 228/1)
- Declarations of conformity are available on request
- Ex db Prefix "DSC/RSC/DHC/RHC enclosure is provided with a 1/2" NPT threaded entry hole, M20 x 1,5 (prefix "M") is optional.

For more information, please visit www.primoflo.com.

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If you need any further information or have any questions, please contact PRIMOFLO.

010 SERIES (Type 1)

PRIMO FLO 010 series 2- way solenoid valve is a reliable and durable control solution for a wide range of applications. With its compact design, it is ideal for use in systems that require automatic control of air, inert gas, water, oil, and other gases/liquids. A wide range of pressure ratings, sizes, and resilient materials making it suitable for use in systems that require precise control with long life and low internal leakage. With its rugged design and superior performance, the PRIMO FLO Series 010 Pilot Operated Hung Diaphragm valve is an excellent choice for a wide range of applications in car wash equipment, air compressors, pumps, laundry equipment, and industrial water control.



FEATURES AND BENEFITS

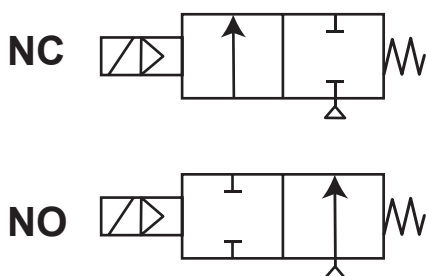
- The valves are certified according to IEC 61508 Functional Safety data and have SIL-3 capability (TÜV)
- Pilot operated construction
- Wide pressure ranges, sizes and no minimum operating pressure required.
- Available in explosion-proof & None explosion-proof operators
- The explosion-proof DC coils are equipped with a built-in integrated surge protection device.
- Coils have class H insulation material
- Meeting various international certifications: NEPSI, EAC, ATEX, IECEx

MATERIALS

MATERIALS IN CONTACT WITH FLUID	
BODY	Stainless steel
END CAP	Stainless steel
CORE AND ARMATURE	Stainless steel
SPRING	Stainless steel
SHADING COIL	Copper
SEALING	LNBR/FKM

Other materials on request.

FUNCTION



APPLICATIONS

- Air compressors
- Industrial water control
- Pumps
- Laundry equipment
- Car wash

For uncertain applications or hazardous operating conditions, please contact PRIMO FLO or suppliers for technical support.

GENERAL

ITEM	STANDARD CONSTRUCTION
MEDIA	Gas, Water, Light oil
AMBIENT TEMPERATURE RANGES	-40°C ~ +65°C
MEDIA TEMPERATURE	-40°C ~ +85°C
OPERATING PRESSURE DIFFERENTIAL	0 ~ 36 bar
FLOW COEFFICIENT	2.9 ~ 22.9 Kv m ³ /h
APPLICATION ENVIRONMENT	Normal Corrosive Area
INSTALLATION	Any Directions
SEAL MATERIAL	LNBR/NBR
VALVE CONSTRUCTION	Pilot operated construction
BODY MATERIAL	Stainless steel
PROTECTION CLASS	IP65/IP66/IP67

Functional Safety certification is not applicable with manual operator type.

ORDERING GUIDE

Available in repairing kits and accessories, please contact PRIMOFLO for more information.

010 series (Type 1) Selection Guide :

COIL CATEGORY	GSC - GSC DIN connector (Non-Ex coil) MSC - MSC Ex Coil, Flying leads DSCA - DSC Junction-Box Ex Coil, Aluminum DSCS - DSC Junction-Box Ex Coil, Stainless Steel RSCA - RSC Refined Chamber Ex Coil, Aluminum RSCS - RSC Refined Chamber Ex Coil, Stainless Steel	←
CABLE ENTRY	Omit - 1/2" NPT(Default) M - M20*1.5	←
PRODUCT SERIES	010 - 010	←
PORT SIZE	N38 - NPT 3/8" N12 - NPT 1/2" N34 - NPT 3/4" G38 - G 3/8" G12 - G 1/2" G34 - G 3/4"	←
FUNCTION TYPE	Omit - Normally closed type 1 - Normally open type	←
BODY MATERIAL	Omit - SS304 Stainless Steel S6 - SS316 Stainless Steel	←
SEALING MATERIAL	L - LNBR F - FKM	←
POWER CONSUMPTION	090 - 9W (Note1) (The Rest Consumption Power by three digits, e.g.090 as 9W)	←
TECHNIACAL REQUIREMENT	E - Comply with ATEX/IEC (The certification system of the European)	←
SPECIAL OPTIONS	* - Special on Request	←
VOLTAGE	24VDC 110VDC 24VAC 220VAC**	←

DSCA M - 010 N12 1 S6 L 090 E * - 24VDC

Note1: Any special requirement on others power consumption, please contact with PRIMOFLO.

*Special options are available upon the requirement.

**ATEX/IEC certified is only available for 24VDC, 220VAC.

ADDITIONAL OPTIONS

- Special options are available upon the requirement

SPECIFICATIONS

Pipe Size (ins.)	Orifice Size (mm)	Flow Coefficient Kv(m³/h)	Operating Pressure Differential(bar)			Media Temperature °C		Rated Power(W)		Catalog Number
			Min.	Max.		Min.AC	Max.DC	AC	DC	Single Coil
				AC	DC					
2/2 Spring Return (Single Coil)										
3/8	15.8	2.5	0	5		82	-	6.5	-	010-*38-L
3/8	15.8	2.5	0	26		82		12		010-*38-L
3/8	15.8	2.5	0	36		82	-	18	-	010-*38-L
3/8	15.8	2.5	0		5	-	65	-	10.5	010-*38-L
3/8	15.8	2.5	0		8	-	65	-	12.0	010-*38-L
3/8	15.8	2.5	0		18	-	65	-	20.0	010-*38-L
1/2	15.8	3.3	0	5		82	-	6.5	-	010-*12-L
1/2	15.8	3.3	0	26		82		12		010-*12-L
1/2	15.8	3.3	0	36		82	-	18	-	010-*12-L
1/2	15.8	3.3	0		5	-	65	-	10.5	010-*12-L
1/2	15.8	3.3	0		8	-	65	-	12.0	010-*12-L
1/2	15.8	3.3	0		18	-	65	-	20.0	010-*12-L
3/4	19	4.3	0	5		82	-	6.5	-	010-*34-L
3/4	19	4.3	0	25		82		12		010-*34-L
3/4	19	4.3	0	36		82	-	18	-	010-*34-L
3/4	19	4.3	0		5	-	65	-	10.5	010-*34-L
3/4	19	4.3	0		7	-	65	-	12.0	010-*34-L
3/4	19	4.3	0		18	-	65	-	20.0	010-*34-L

ELECTRICAL CHARACTERISTICS

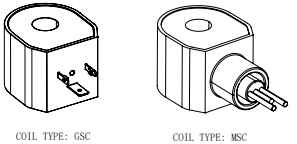
Coil insulation class H
Standard voltages DC (≡) 24V -110V; Allowable voltage variation -15%~+10%
AC (~) 24V-220V-230V; Other voltages are available on request

Coil Category	Power Ratings			Operator Ambient Temperature Range (°C)	Safety Code	Protection Class	Cable Entry
	24V/DC(W)	220V/AC(VA)					
		Inrush	Holding				
GSC	10.5	6.5	6.5	-40 ~ +65	EN60730	IP65*	EN175301-803A (ISO 4400)
	20.0	12.0	12.0	-40 ~ +65	EN60730	IP65*	EN175301-803A (ISO 4400)
MSC	10.5	/	/	-40 ~ +35	Ex mb IIC T5 Gb Ex mb IIIC T100°C Db	IP65	Conduit 1/2" NPT
	10.5	/	/	-40 ~ +65	Ex mb IIC T4 Gb Ex mb IIIC T135°C Db	IP65	Conduit 1/2" NPT
	20.0	/	/	-40 ~ +40	Ex mb IIC T4 Gb Ex mb IIIC T135°C Db	IP65	Conduit 1/2" NPT
	20.0	/	/	-40 ~ +60	Ex mb IIC T3 Gb Ex mb IIIC T150°C Db	IP65	Conduit 1/2" NPT
	/	6.5	6.5	-40 ~ +45	Ex mb IIC T5 Gb Ex mb IIIC T100°C Db	IP65	Conduit 1/2" NPT
	/	6.5	6.5	-40 ~ +65	Ex mb IIC T4 Gb Ex mb IIIC T135°C Db	IP65	Conduit 1/2" NPT
	/	12.0	12.0	-40 ~ +55	Ex mb IIC T3 Gb Ex mb IIIC T170°C Db	IP65	Conduit 1/2" NPT

Coil Category	Power Ratings			Operator Ambient Temperature Range (°C)	Safety Code	Protection Class	Cable Entry
	24V/DC(W)	220V/AC(VA)					
		Inrush	Holding				
DSC RSC	10.5	/	/	-40 ~ +50	Ex db IIC T5 Gb Ex tb IIIC T100°C Db	IP66/IP67	1/2” NPT或M20 X1.5
	10.5	/	/	-40 ~ +65	Ex db IIC T4 Gb Ex tb IIIC T135°C Db	IP66/IP67	1/2” NPT或M20 X1.5
	20.0	/	/	-40 ~ +35	Ex db IIC T5 Gb Ex tb IIIC T100°C Db	IP66/IP67	1/2” NPT或M20 X1.5
	20.0	/	/	-40 ~ +65	Ex db IIC T4 Gb Ex tb IIIC T135°C Db	IP66/IP67	1/2” NPT或M20 X1.5
	/	6.5	6.5	-40 ~ +50	Ex db IIC T5 Gb Ex tb IIIC T100°C Db	IP66/IP67	1/2” NPT或M20 X1.5
	/	6.5	6.5	-40 ~ +65	Ex db IIC T4 Gb Ex tb IIIC T135°C Db	IP66/IP67	1/2” NPT或M20 X1.5
	/	12.0	12.0	-40 ~ +50	Ex db IIC T3 Gb Ex tb IIIC T150°C Db	IP66/IP67	1/2” NPT或M20 X1.5

The coils are supplied without cable gland.
* GSC coils with electrical plug connector are required in protection class IP65
Other coil types are available on request.

DIMENSIONS: mm[inches]

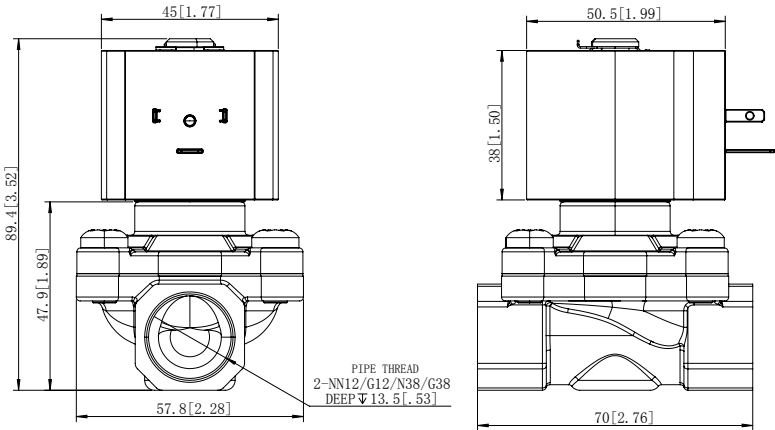


COIL TYPE: GSC COIL TYPE: MSC



GSC/MS Coils

Port size: 3/8", 1/2"
Basic catalogue number :
GSC/MS*-010*38/12

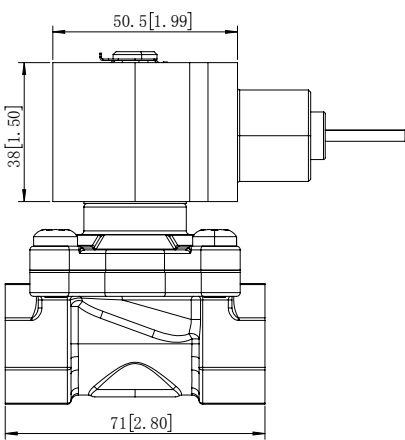
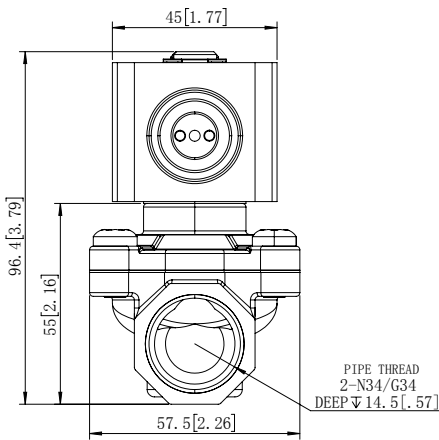


DIMENSIONS: mm[inches]



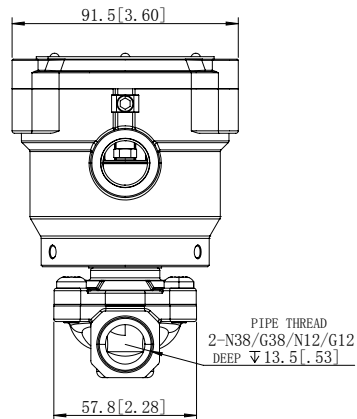
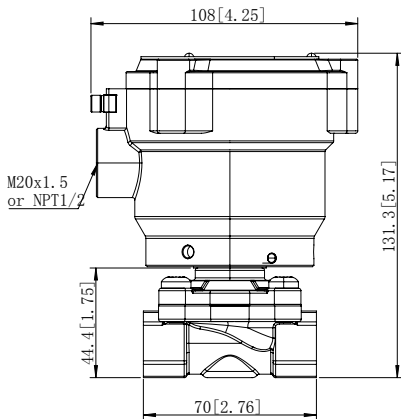
GSC/MSD Coil

Port size: 3/4"
Basic catalogue number :
GSC/MSD-010*34



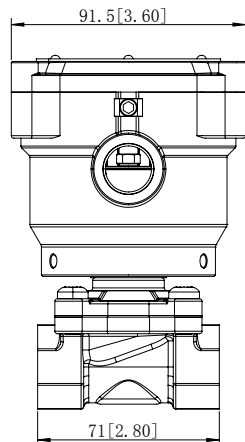
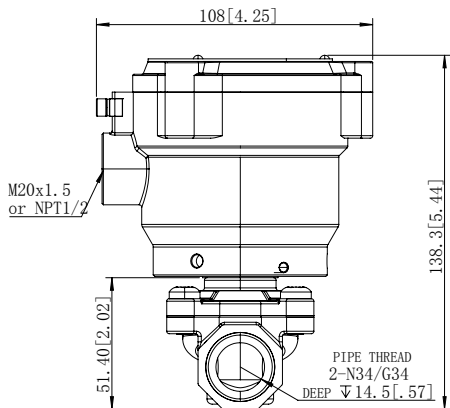
DSC Coil

Port size: 3/8", 1/2"
Basic catalogue number :
DSC*-010*38/12



DSC Coil

Port size: 3/4"
Basic catalogue number :
DSC*-010*34

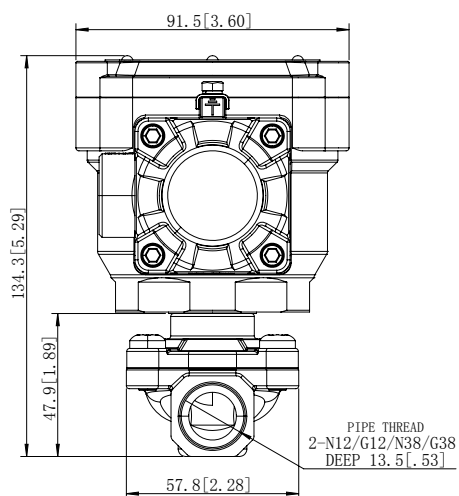


DIMENSIONS: mm[inches]



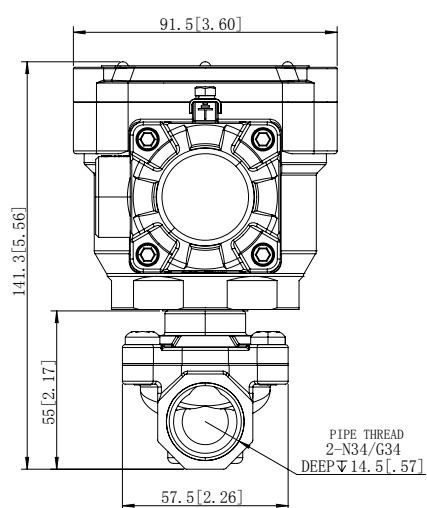
RSC Coil

Port size: 3/8", 1/2"
Basic catalogue number :
RSC*-010*38/12



RSC Coil

Port size: 3/4"
Basic catalogue number : RSC*-
010*34



INSTALLATION

Check nameplate for correct catalog number, pressure, voltage, frequency, and service. Never apply incompatible fluids or exceed pressure rating of pressure rating of the valve. Contact PRIMOFLO or your supplier for more information about this valve or other valve options if this valve is not suitable for your application

Installation/maintenance instructions are included with each valve

- The solenoid valves can be mounted in any position without affecting operation
- The mounting holes are provided in the valve body
- Threaded pipe connection identifier is N = NPT (ANSI 1.20.3); G = G (ISO 228/1)
- Declarations of conformity are available on request

the valve. Installation and valve maintenance to be performed by qualified personnel. Never apply incompatible fluids or exceed • Ex db Prefix "DSC/RSC/DHC/RHC enclosure is provided with a 1/2" NPT threaded entry hole, M20 x 1,5 (prefix "M") is optional.

For more information, please visit www.primoflo.com.

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If you need any further information or have any questions, please contact PRIMOFLO.

010 SERIES (Type 2)

PRIMOFLO 010 series 2- way solenoid valve is a reliable and durable control solution for a wide range of applications. With its compact design, it is ideal for use in systems that require automatic control of air, inert gas, water, oil, and other gases/liquids. A wide range of pressure ratings, sizes, and resilient materials making it suitable for use in systems that require precise control with long life and low internal leakage. With its rugged design and superior performance, the PRIMOFLO Series 010 Pilot Operated Hung Diaphragm valve is an excellent choice for a wide range of applications in car wash equipment, air compressors, pumps, laundry equipment, and industrial water control.



FEATURES AND BENEFITS

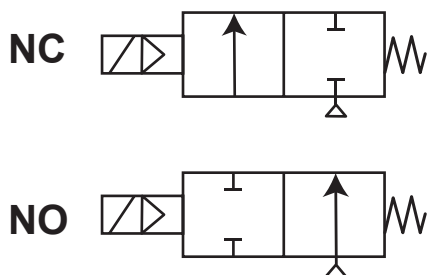
- The valves are certified according to IEC 61508 Functional Safety data and have SIL-3 capability (TÜV)
- Pilot operated construction
- Wide pressure ranges, sizes and no minimum operating pressure required.
- Available in explosion-proof & None explosion-proof operators
- The explosion-proof DC coils are equipped with a built-in integrated surge protection device.
- Coils have class H insulation material
- Meeting various international certifications: NEPSI, EAC, ATEX, IECEx

MATERIALS

MATERIALS IN CONTACT WITH FLUID	
BODY	Stainless steel
END CAP	Stainless steel
CORE AND ARMATURE	Stainless steel
SPRING	Stainless steel
SHADING COIL	Copper
SEALING	LNBR/FKM

Other materials on request.

FUNCTION



APPLICATIONS

- Air compressors
- Industrial water control
- Pumps
- Laundry equipment
- Car wash

For uncertain applications or hazardous operating conditions, please contact PRIMOFLO or suppliers for technical support.

GENERAL

ITEM	STANDARD CONSTRUCTION
MEDIA	Gas, Water, Light oil
AMBIENT TEMPERATURE RANGES	-40°C ~ +65°C
MEDIA TEMPERATURE	-40°C ~ +85°C
OPERATING PRESSURE DIFFERENTIAL	0 ~ 22 bar
FLOW COEFFICIENT	2.9 ~ 22.9 Kv m³/h
APPLICATION ENVIRONMENT	Normal Corrosive Area
INSTALLATION	Any Directions
SEAL MATERIAL	LNBR/NBR
VALVE CONSTRUCTION	Pilot operated construction
BODY MATERIAL	Stainless steel
PROTECTION CLASS	IP65/IP66/IP67

Functional Safety certification is not applicable with manual operator type.

ORDERING GUIDE

Available in repairing kits and accessories, please contact PRIMOFLO for more information.

010 series (Type 2) Selection Guide :

COIL CATEGORY	GHC - GHC DIN connector (Non-Ex coil) MHC - MHC Ex Coil, Flying leads DHCA - DHC Junction-Box Ex Coil, Aluminum DHCS - DHC Junction-Box Ex Coil, Stainless Steel RHCA - RHC Refined Chamber Ex Coil, Aluminum RHCS - RHC Refined Chamber Ex Coil, Stainless Steel	DHCA	M	-	010	N12	1	S6	L	090	E	*	-	24VDC
CABLE ENTRY	Omit - 1/2" NPT(Default) M - M20*1.5													
PRODUCT SERIES	010 - 010													
PORT SIZE	N38 - NPT 3/8" N12 - NPT 1/2" N34 - NPT 3/4" N11 - NPT 1/1" N54 - NPT 1 1/4" N32 - NPT 1 1/2" G38 - G 3/8" G12 - G 1/2" G34 - G 3/4" G11 - G 1/1" G54 - G 1 1/4" G32 - G 1 1/2"													
FUNCTION TYPE	Omit - Normally closed type 1 - Normally open type													
BODY MATERIAL	Omit - SS304 Stainless Steel S6 - SS316 Stainless Steel													
SEALING MATERIAL	L - LNBR F - FKM													
POWER CONSUMPTION	090 - 9W (Note1) (The Rest Consumption Power by three digits, e.g.090 as 9W)													
TECHNIACAL REQUIREMENT	E - Comply with ATEX/IEC (The certification system of the European)													
SPECIAL OPTIONS	* - Special on Request													
VOLTAGE	24VDC 110VDC 24VAC 220VAC**													

Note1: Any special requirement on others power consumption, please contact with PRIMOFLO.

*Special options are available upon the requirement.

**ATEX/IEC certified is only available for 24VDC, 220VAC.

ADDITIONAL OPTIONS

- Special options are available upon the requirement

SPECIFICATIONS

Pipe Size (ins.)	Orifice Size (mm)	Flow Coefficient Kv(m³/h)	Operating Pressure Differential(bar)			Media Temperature °C		Rated Power(W)		Catalog Number
			Min.	Max.		Min.AC	Max.DC	AC	DC	Single Coil
				AC	DC					
2/2 Spring Return (Single Coil)										
3/8	15.8	2.5	0	19		82	65	8	-	010-*38-L
3/8	15.8	2.5	0	34		82	65	10	-	010-*38-L
3/8	15.8	2.5	0	49		82	65	17	-	010-*38-L
3/8	15.8	2.5	0		6	82	65	-	8	010-*38-L
3/8	15.8	2.5	0		15	82	65	-	12	010-*38-L
3/8	15.8	2.5	0		22	82	65	-	16	010-*38-L
3/8	15.8	2.5	0		36	82	65	-	20	010-*38-L
1/2	15.8	3.3	0	19		82	65	8	-	010-*12-L
1/2	15.8	3.3	0	34		82	65	10	-	010-*12-L
1/2	15.8	3.3	0	49		82	65	17	-	010-*12-L
1/2	15.8	3.3	0		6	82	65	-	8	010-*12-L
1/2	15.8	3.3	0		18	82	65	-	12	010-*12-L
1/2	15.8	3.3	0		24	82	65	-	16	010-*12-L
1/2	15.8	3.3	0		36	82	65	-	20	010-*12-L
3/4	19	4.3	0	18		82	65	8	-	010-*34-L
3/4	19	4.3	0	31		82	65	10	-	010-*34-L
3/4	19	4.3	0	45		82	65	17	-	010-*34-L
3/4	19	4.3	0		5	82	65	-	8	010-*34-L
3/4	19	4.3	0		11	82	65	-	12	010-*34-L
3/4	19	4.3	0		17	82	65	-	16	010-*34-L
3/4	19	4.3	0		27	82	65	-	20	010-*34-L
1	25	11.0	0	6		82	65	8	-	010-*11-L
1	25	11.0	0	10		82	65	10	-	010-*11-L
1	25	11.0	0	21		82	65	17	-	010-*11-L
1	25	11.0	0		6	82	65	-	8	010-*11-L
1	25	11.0	0		9	82	65	-	12	010-*11-L
1	25	11.0	0		11	82	65	-	16	010-*11-L
1	25	11.0	0		17	82	65	-	20	010-*11-L
1 1/4	29	13.0	0	6		82	65	8	-	010-*54-L
1 1/4	29	13.0	0	10		82	65	10	-	010-*54-L
1 1/4	29	13.0	0	21		82	65	17	-	010-*54-L
1 1/4	29	13.0	0		6	82	65	-	8	010-*54-L
1 1/4	29	13.0	0		9	82	65	-	12	010-*54-L
1 1/4	29	13.0	0		11	82	65	-	16	010-*54-L
1 1/4	29	13.0	0		17	82	65	-	20	010-*54-L
1 1/2	32	19.5	0	6		82	65	8	-	010-*32-L
1 1/2	32	19.5	0	11		82	65	10	-	010-*32-L
1 1/2	32	19.5	0	22		82	65	17	-	010-*32-L
1 1/2	32	19.5	0		5	82	65	-	8	010-*32-L
1 1/2	32	19.5	0		8	82	65	-	12	010-*32-L
1 1/2	32	19.5	0		10	82	65	-	16	010-*32-L
1 1/2	32	19.5	0		16	82	65	-	20	010-*32-L

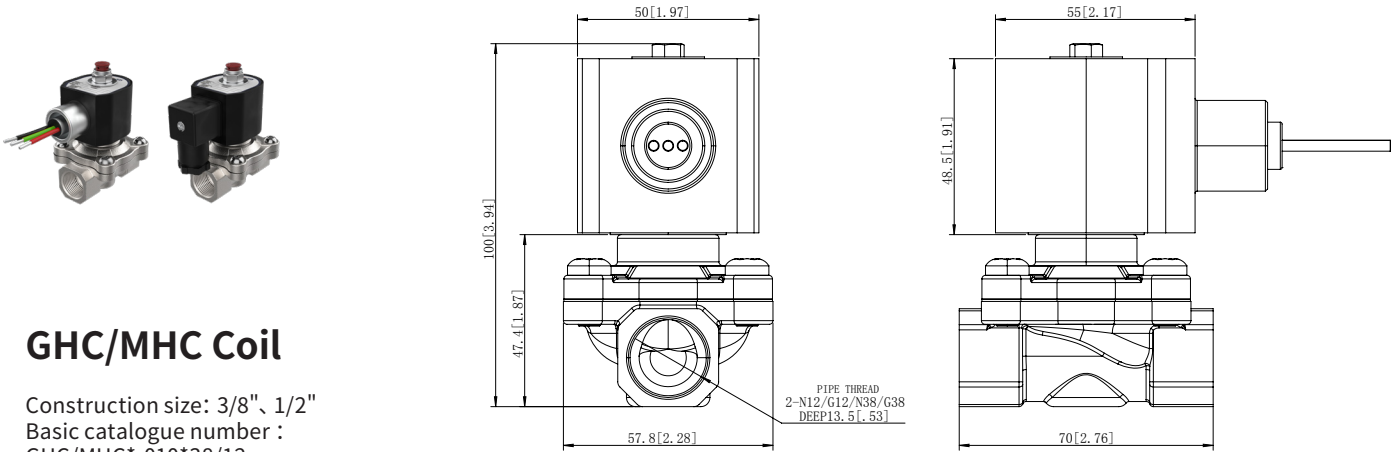
ELECTRICAL CHARACTERISTICS

Coil insulation class H
Standard voltages DC (≒) 24V -110V; Allowable voltage variation -15%~+10%
AC (∼) 24V-220V-230V; Other voltages are available on request

Coil Category	Power Ratings			Operator Ambient Temperature Range (°C)	Safety Code	Protection Class	Cable Entry
	24V/DC(W)	220V/AC(VA)					
		Inrush	Holding				
GHC	10.5	6.5	6.5	-40 ~ +65	EN60730	IP65*	EN175301-803A (ISO 4400)
	20.0	10	10	-40 ~ +65	EN60730	IP65*	EN175301-803A (ISO 4400)
MHC	10	/	/	-40 ~ +45	Ex mb IIC T5 Gb Ex mb IIIC T100°C Db	IP66	Conduit 1/2" NPT
	10	/	/	-40 ~ +65	Ex mb IIC T4 Gb Ex mb IIIC T135°C Db	IP66	Conduit 1/2" NPT
	20	/	/	-40 ~ +50	Ex mb IIC T4 Gb Ex mb IIIC T135°C Db	IP66	Conduit 1/2" NPT
	20	/	/	-40 ~ +65	Ex mb IIC T3 Gb Ex mb IIIC T170°C Db	IP66	Conduit 1/2" NPT
	/	10	10	-40 ~ +55	Ex mb IIC T5 Gb Ex mb IIIC T100°C Db	IP66	Conduit 1/2" NPT
	/	10	10	-40 ~ +65	Ex mb IIC T4 Gb Ex mb IIIC T135°C Db	IP66	Conduit 1/2" NPT
DHC RHC	10	/	/	-40 ~ +50	Ex db IIC T6 Gb Ex tb IIIC T85°C Db	IP66/IP67	1/2" NPT或M20 X1.5
	10	/	/	-40 ~ +65	Ex db IIC T5 Gb Ex tb IIIC T100°C Db	IP66/IP67	1/2" NPT或M20 X1.5
	20	/	/	-40 ~ +40	Ex db IIC T6 Gb Ex tb IIIC T85°C Db	IP66/IP67	1/2" NPT或M20 X1.5
	20	/	/	-40 ~ +55	Ex db IIC T5 Gb Ex tb IIIC T100°C Db	IP66/IP67	1/2" NPT或M20 X1.5
	20	/	/	-40 ~ +65	Ex db IIC T4 Gb Ex tb IIIC T135°C Db	IP66/IP67	1/2" NPT或M20 X1.5
	/	6.5/10	6.5/10	-40 ~ +50	Ex db IIC T6 Gb Ex tb IIIC T85°C Db	IP66/IP67	1/2" NPT或M20 X1.5
	/	6.5/10	6.5/10	-40 ~ +65	Ex db IIC T5 Gb Ex tb IIIC T100°C Db	IP66/IP67	1/2" NPT或M20 X1.5

The coils are supplied without cable gland.
* GHC coils with electrical plug connector are required in protection class IP65
Other coil types are available on request.

DIMENSIONS: mm[inches]



GHC/MHC Coil

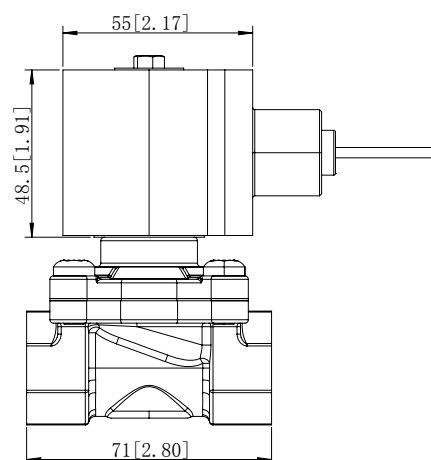
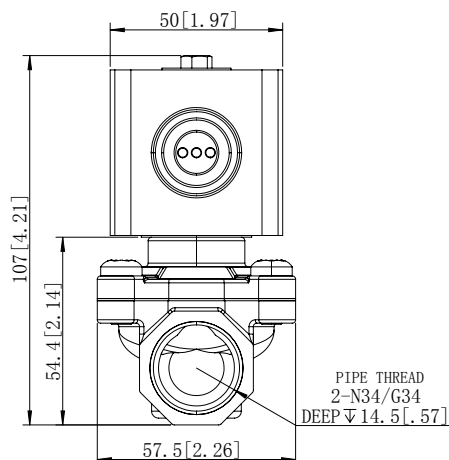
Construction size: 3/8"、1/2"
Basic catalogue number :
GHC/MHC*-010*38/12

DIMENSIONS: mm[inches]



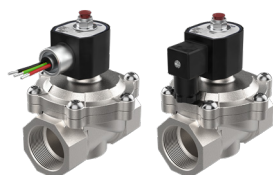
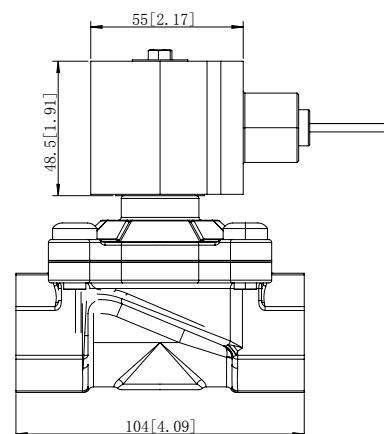
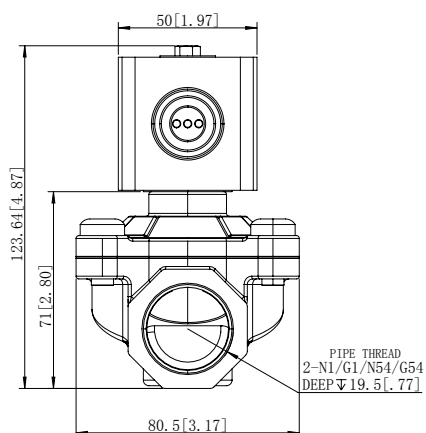
GHC/MHC Coil

Construction size: 3/4"
Basic catalogue number :
GSC/MSC*-010*34



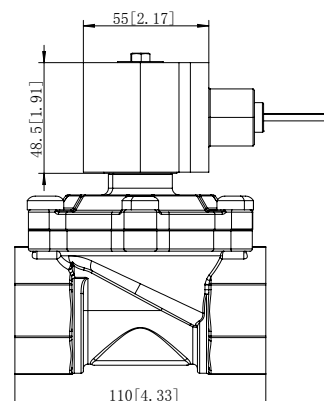
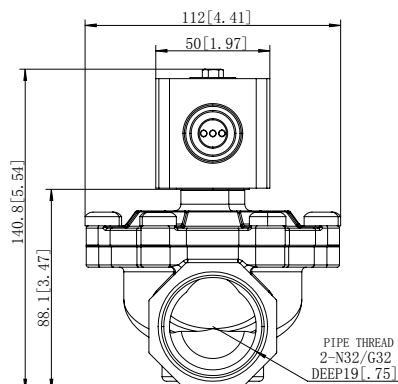
GHC/MHC Coil

Construction size: 1" 1/4"
Basic catalogue number :
GHC/MHC*-010*11/54



GHC/MHC Coil

Construction size: 1 1/2"
Basic catalogue number :
GHC/MHC*-010*32

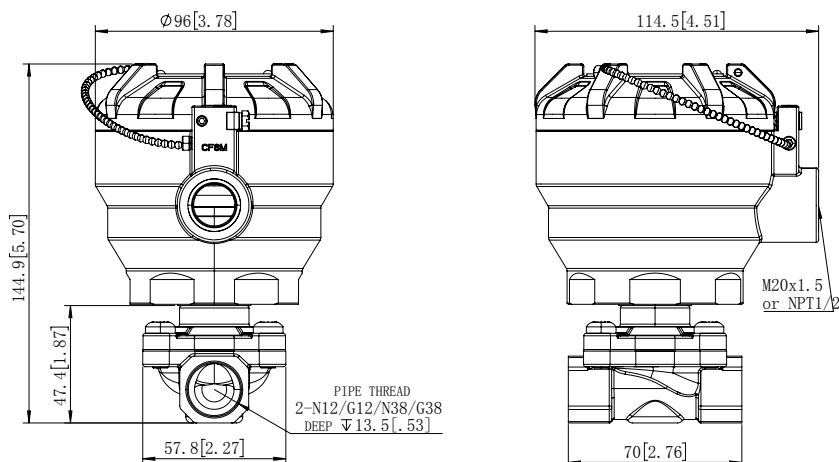


DIMENSIONS: mm[inches]



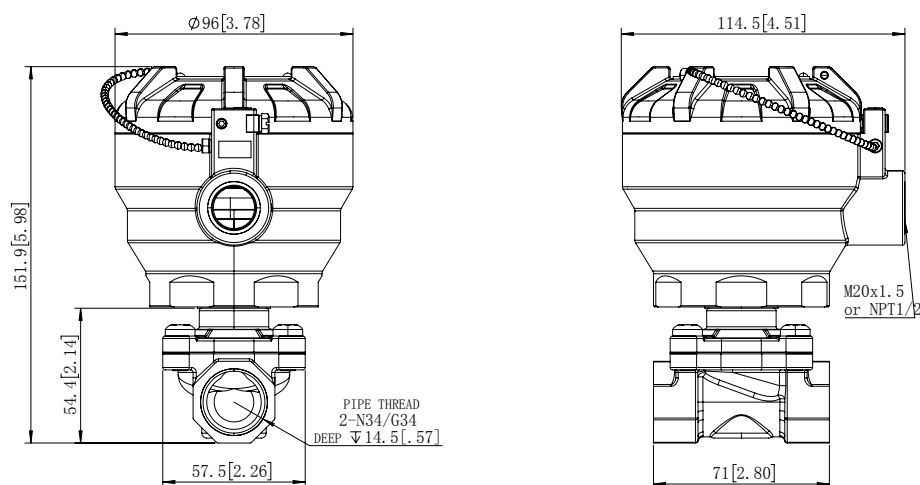
DHC Coil

Construction size: 3/8"、1/2"
Basic catalogue number :
DHC*-010*38/12



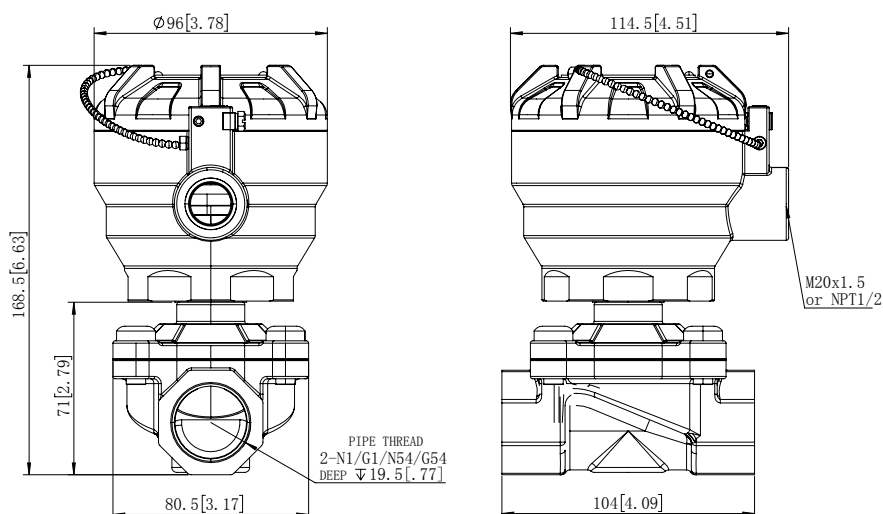
DHC Coil

Construction size: 3/4"
Basic catalogue number :
DHC*-010*34



DHC Coil

Construction size: 1" 1 1/4"
Basic catalogue number :
DHC*-010*11/54

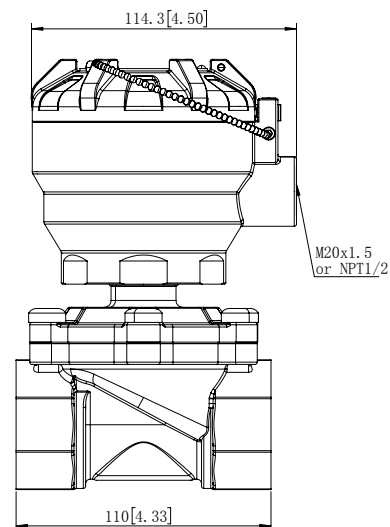
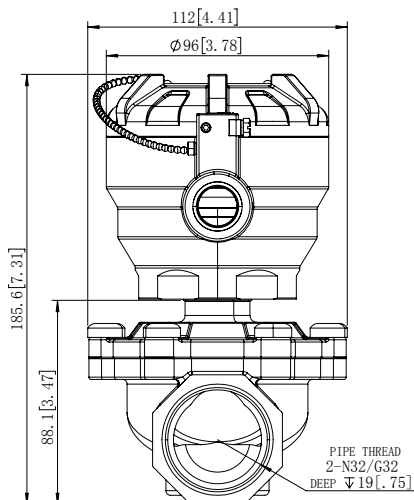


DIMENSIONS: mm[inches]



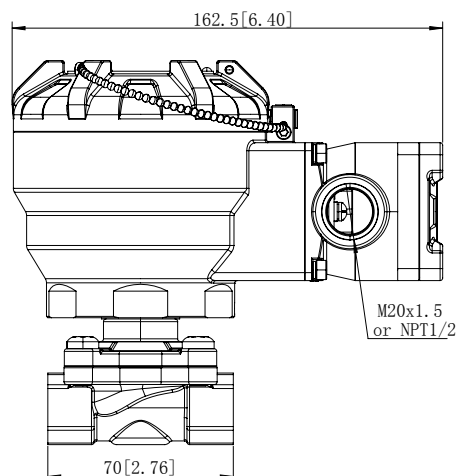
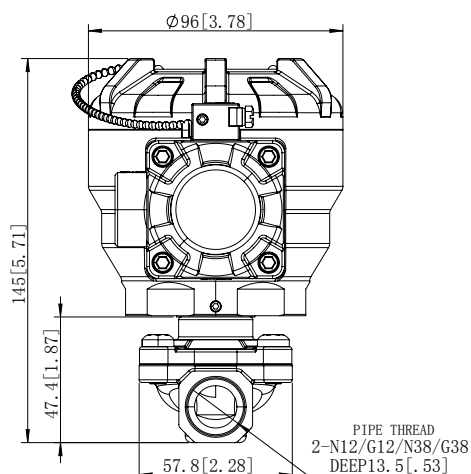
DHC Coil

Construction size: 1 1/2"
Basic catalogue number :
DHC*-010*32



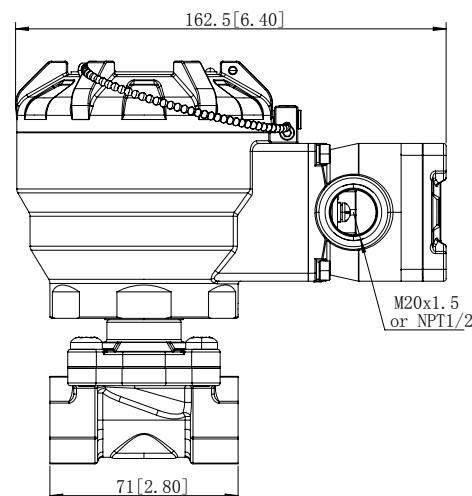
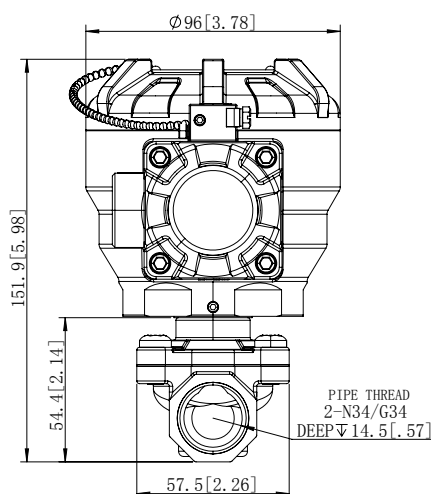
RHC Coil

Construction size: 3/8", 1/2"
Basic catalogue number :
RHC*-010*38/12



RHC Coil

Construction size: 3/4"
Basic catalogue number :
RHC*-010*34

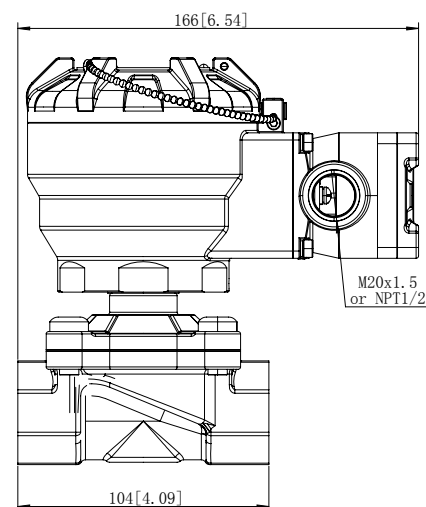
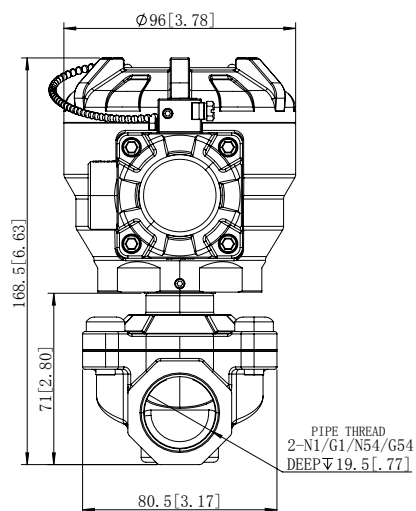


DIMENSIONS: mm[inches]



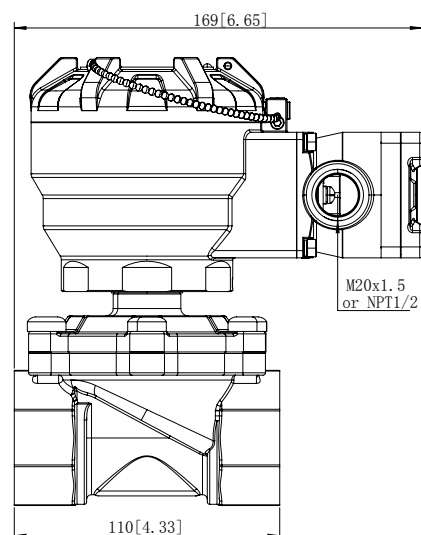
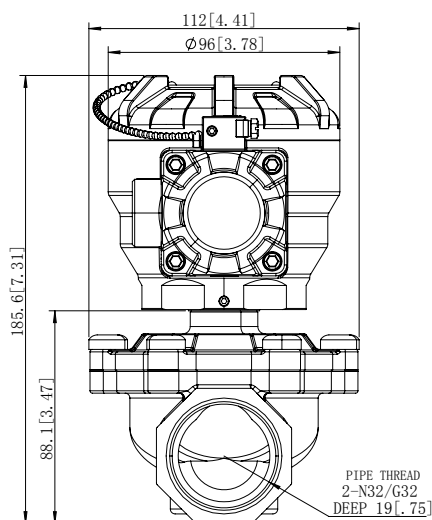
RHC Coil

Construction size: 1" 1 1/4"
Basic catalogue number :
RHC*-010*11/54



RHC Coil

Construction size: 1 1/2"
Basic catalogue number :
RHC*-010*32



I INSTALLATION

Check nameplate for correct catalog number, pressure, voltage, frequency, and service. Never apply incompatible fluids or exceed pressure rating of pressure rating of the valve. Contact PRIMOFLO or your supplier for more information about this valve or other valve options if this valve is not suitable for your application

Installation/maintenance instructions are included with each valve

- The solenoid valves can be mounted in any position without affecting operation
- The mounting holes are provided in the valve body
- Threaded pipe connection identifier is N = NPT (ANSI 1.20.3); G = G (ISO 228/1)
- Declarations of conformity are available on request

the valve. Installation and valve maintenance to be performed by qualified personnel. Never apply incompatible fluids or exceed • Ex db Prefix "DSC/RSC/DHC/RHC enclosure is provided with a 1/2" NPT threaded entry hole, M20 x 1,5 (prefix "M") is optional.

For more information, please visit www.primoflo.com.

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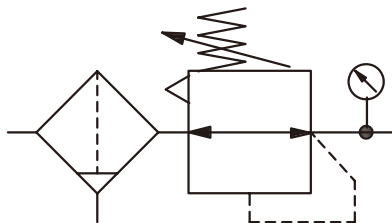
If you need any further information or have any questions, please contact PRIMOFLO.

F37 SERIES

PRIMO FLO series 37 stainless steel filter regulators are designed to meet the rugged demands of harsh process environments and suitable for use in potentially explosive atmosphere, providing high flow rate with precise pressure regulation to the actuator. Effective moisture removal ensures clean, dry media to eliminate contamination to downstream devices. It also has a large number of other applications including Marine (Oil Tankers, Ferries, Cargo Vessels & Diesel Engines) and Oil & Gas (offshore platforms & refinery). Aluminum material regulator are also ideal for automation control industrial.



FUNCTION



APPLICATIONS

- Petroleum & Natural Gas
- Pneumatic Actuator
- Air Compressor
- Automatic Control System

For uncertain applications or hazardous operating conditions, please contact PRIMO FLO or supplier for technical support

FEATURES AND BENEFITS

- Certified according to IEC 61508 functional safety data and have SIL-3 capability (TÜV)
- Regulator designed with integral filter constructions
- Unique design to maintain excellent performance in low temperature environments
- All stainless steel filter regulators are provided integrated protective cap as standard
- Reliable and long life, ideal for one time installation
- Available in stainless steel or aluminum material
- Stainless steel regulators are complied with ASTM A 351/ NACE MR 01.75
- Available in manual and auto drain
- Standard with 5 microns filter elements, available in a variety of filter elements
- Comply with EAC certification requirements

MATERIALS

MATERIALS IN CONTACT WITH FLUID	
BODY	Stainless steel / Aluminum
SPRING BOX	Stainless steel / Aluminum
CORE	Stainless steel
SPRING	Stainless steel
FILTER ELEMENT MATERIAL	Stainless steel / Copper
SEALING	VMQ/NBR

Other materials on request.

GENERAL

ITEM	F37
PORT SIZE (NPT)	1/4", 3/8", 1/2", 3/4", 1"
MEDIA	Air
BODY MATERIAL	Stainless steel / Aluminum
INLET PRESSURE	10 bar(max)-Aluminum 20 bar(max)-Stainless steel 10 bar(max)-Automatic drainage
OUTLET PRESSURE	0.5~8.3 bar(Aluminum) 0.5~10 bar(Stainless steel)
TEMPERATURE RANGES	-40°C ~ +80°C/-55°C ~ +90°C
FILTERING CAPACITY	5µm(Standard) / 25µm or 40µm(Optional)
DRAINAGE	Manual(default), Automatic (Maximum inlet pressure 10bar) /Semi-automatic drain (optional)
BOWL CAPACITY	<1/2", 120ml, storage 60ml ≥1/2", 240ml, storage 90ml
VENT	Integrated Protective Cap(Standard) or M6 Vent - Stainless Steel 3 mm Vent - Aluminum

30F37EU02-2025R0

ORDERING GUIDE

Available in repairing kits, accessories, please contact PRIMOFLO for more information.

F37 Series Selection Guide:

PRODUCT SERIES	F37 - F37
PORT SIZE	14 - 1/4" NPT 38 - 3/8" NPT 12 - 1/2" NPT 34 - 3/4" NPT 11 - 1" NPT
BODY MATERIAL	0 - Stainless steel 1 - Aluminum
OUTLET PRESSURE	0 - 0.5 ~ 8.3bar (Aluminum) 0 - 0.5 ~ 10bar (Stainless steel)
MEDIA TEMPERATURE	Omit - -40°C ~ +80°C (Default) L - -55°C ~ +90°C (Note 1)
BRACKET	Omit - Inclusive (Default) N - Without
GAUGE	Omit - Without (Default) G - Inclusive (Note 2)
DRAIN	Omit - Manual (Default) S - Semi-automatic drain A - Automatic (Maximum inlet pressure 10bar)
FILTER ELEMENT	Omit - 5µm (Default) 0 - 40µm 1 - 25µm X - No Filter
TECHNICAL REQUIREMENT	E - Comply with ATEX/IEC (The certification system of the European)
SPECIAL OPTIONS	* - Special on Request

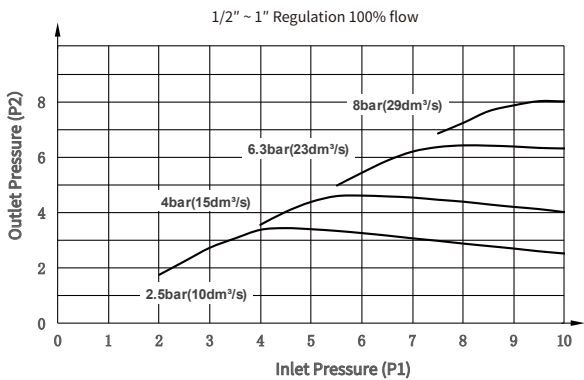
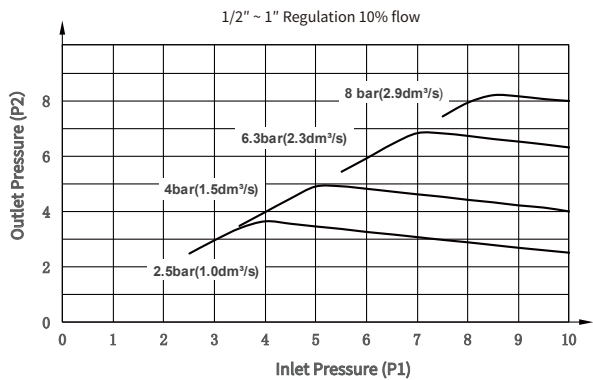
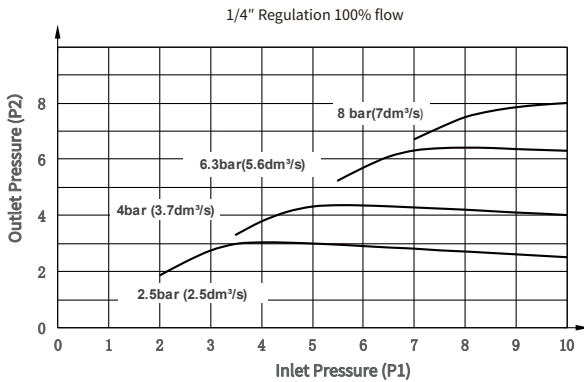
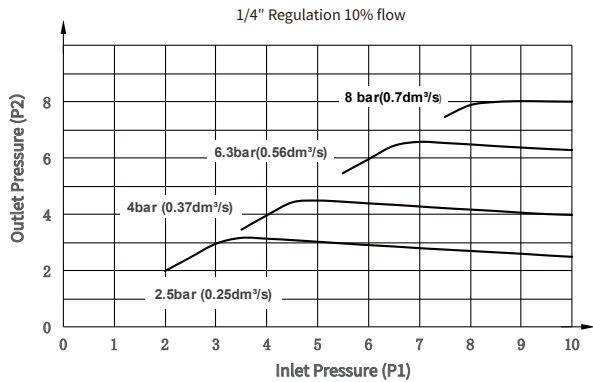
F37 - 14 - 0 0 L N G A 0 E - *

Note1: Low temperature(-55°C to 90 °C) type is only available for Stainless steel body

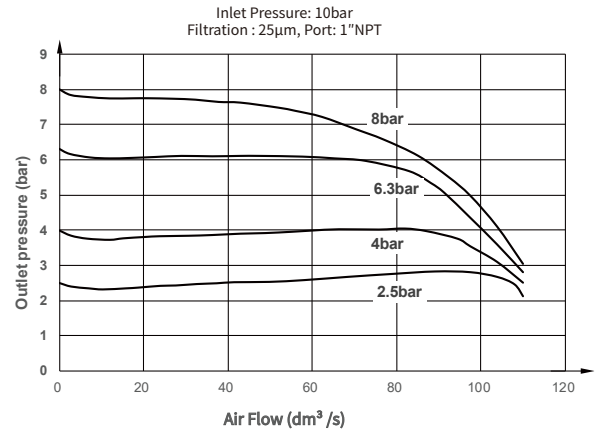
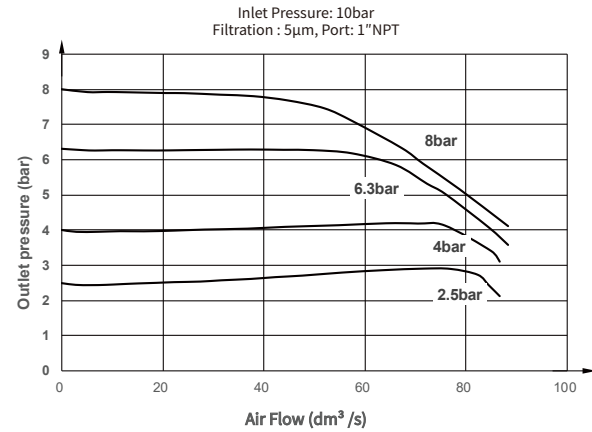
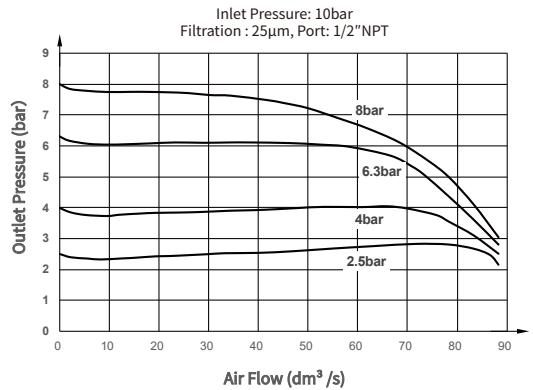
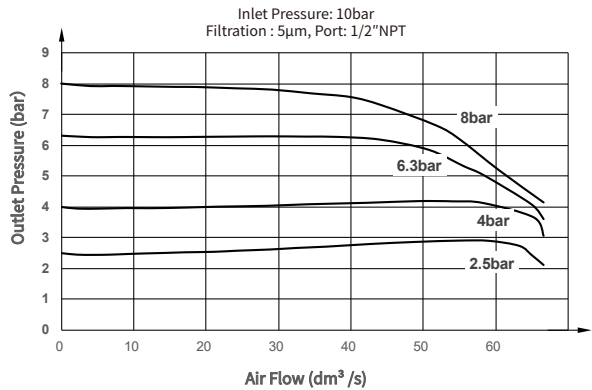
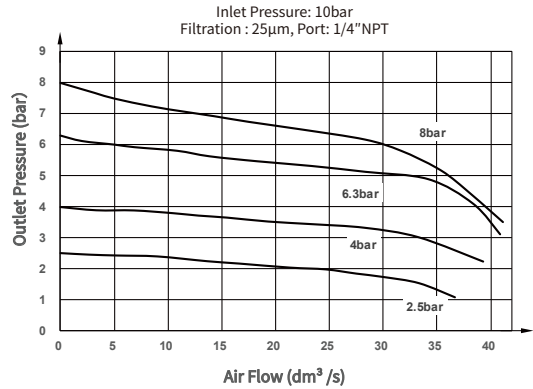
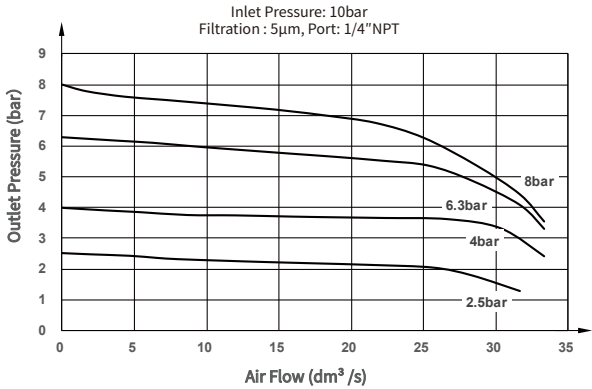
Note2: When selecting the low temperature type filter regulator with gauge(-55°C to 90 °C), please select low temperature gauge (-55°C to 90 °C).

*Special options are available on request.

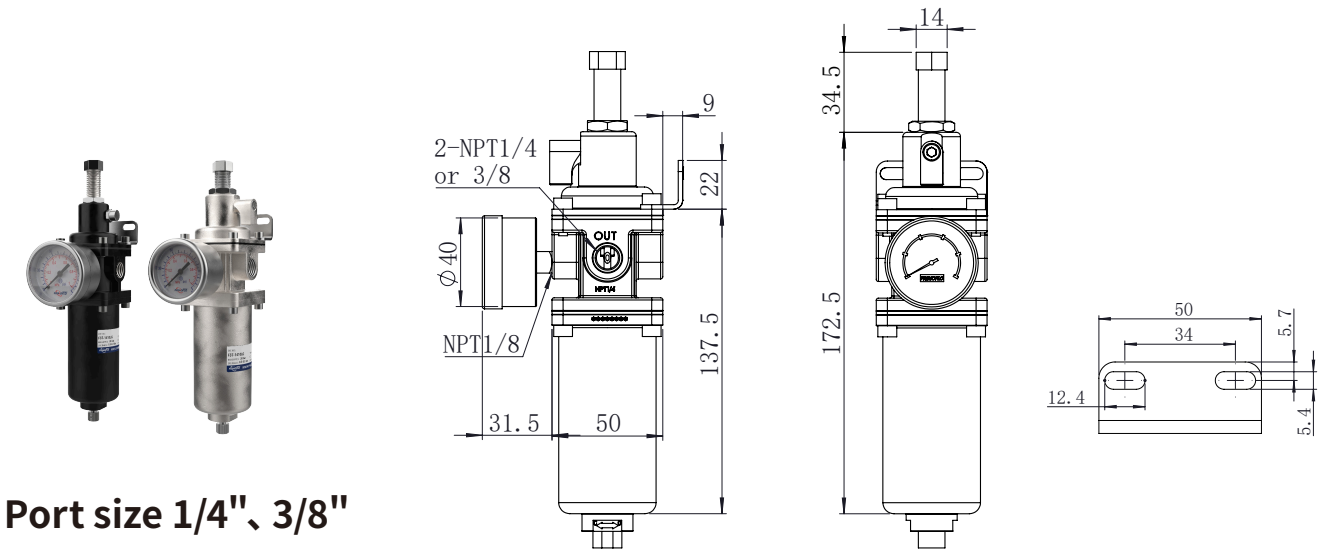
REGULATING CHARACTERISTICS



FLOW CHARACTERISTICS

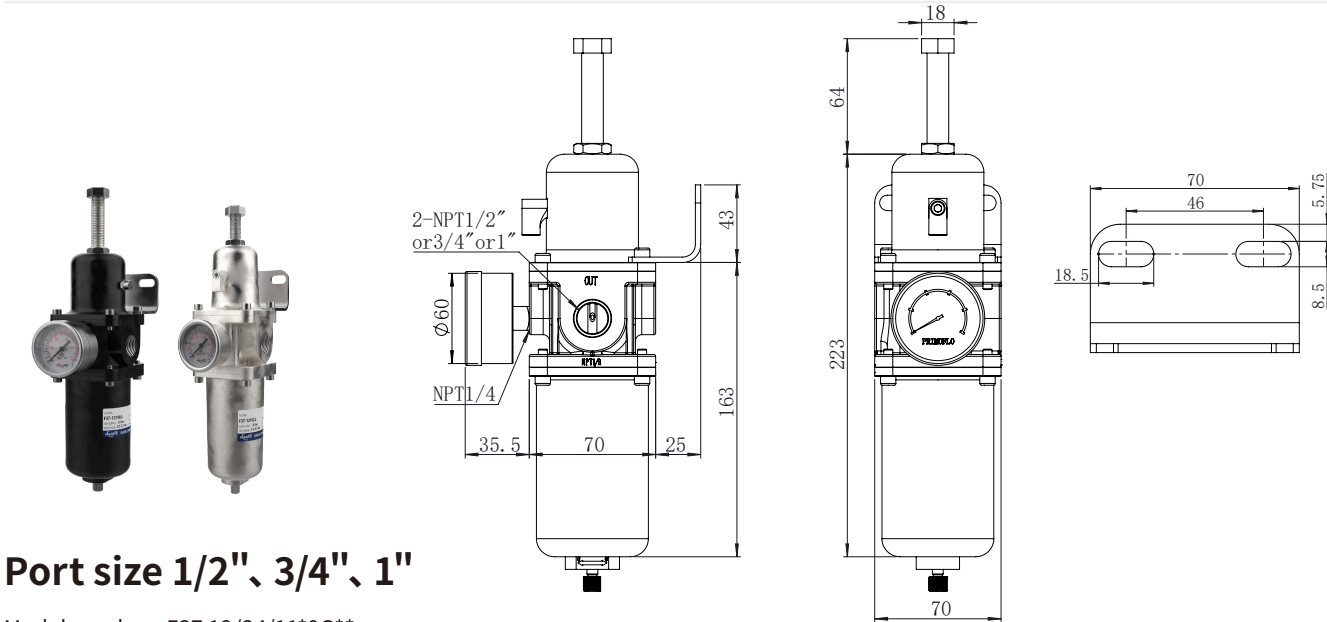


DIMENSIONS(mm)



Port size 1/4", 3/8"

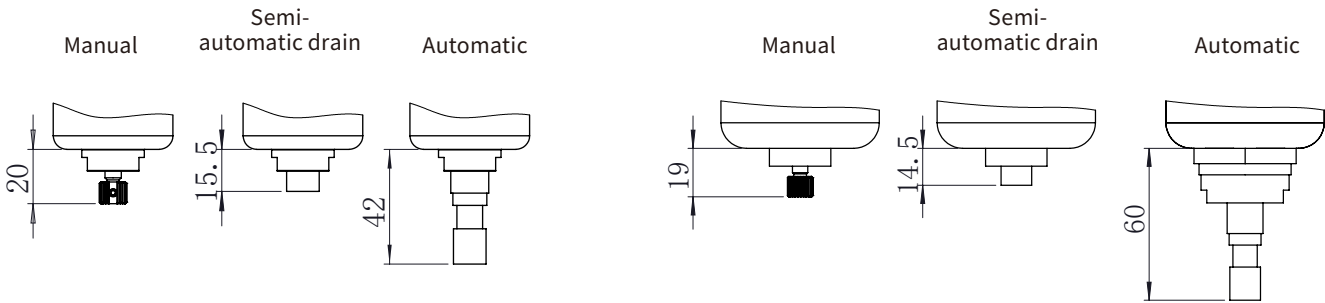
Model number: F37-14/38*0G**



Port size 1/2", 3/4", 1"

Model number: F37-12/34/11*0G**

DRAINAGE STRUCTURE DIMENSIONS (mm)



Port size: 1/4"、3/8"

Port size: 1/2"、3/4"、1"

PRESSURE GAUGE SPECIFICATIONS

F37 SPECIFICATIONS	PORT SIZE	1/4" NPT 3/8" NPT	1/4" NPT 3/8" NPT	1/2" NPT 3/4" NPT 1" NPT	1/2" NPT 3/4" NPT 1" NPT
	MEDIA TEMPERATURE	-40°C ~ +80°C (Standard)	-55°C ~ +90°C (Low-temp)	-40°C ~ +80°C (Standard)	-55°C ~ +90°C (Low-temp)
PRESSURE GAUGE SPECIFICATIONS	OUTLINE DIMENSIONS				
	PRESSURE RANGE		0~1 MPa / 0~10 bar		
	ACCURACY CLASS		Class 2.5 (per EN 837-1)		
	CONNECTION THREAD		1/8" NPT	1/8" NPT	1/4" NPT
	DIAL DIAMETER		40mm	40mm	60mm
	CASE FILLING		Low-temp Silicone Oil	Low-temp Silicone Oil	Low-temp Silicone Oil
	MATERIAL	CASE	Stainless Steel	Stainless Steel	Stainless Steel
		WINDOW	Safety Glass	Safety Glass	Safety Glass
		WETTED PARTS	Stainless Steel	Stainless Steel	Stainless Steel

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LABELING OF EXPLOSION PROOF EQUIPMENT ACCORDING TO ATEX DIRECTIVES

DEFINITION
Complies with European Directive
Notified Body Number
Specific Marking for Explosion Protection



Application	Equipment Group	Equipment Categorized by		Level of Protection		Equipment Category	Explosive Atmosphere Contains	Zone Classification
Mining	I	Required Performance in the Event of an Explosive Atmosphere	Remain Functional	Very High	Two Faults	M1	Gas	
			De-energised	High	Normal Operation	M2	Dust	
		Expectancy of the Occurrence of an Explosive Atmosphere	Continuously for Long Periods or Frequently	Very High	Two Faults	1	Gas	
			Occasionally	Very High	One Fault	2	Dust	
Other Industries	II	Expectancy of the Occurrence of an Explosive Atmosphere	Unlikely or Infrequently and for a Short Period	Normal	Normal Operation	3	Gas	2
							Dust	22
			Occasionally	Very High	One Fault	2	Gas	1
							Dust	21

Example

1:	II	2G	Ex d	IIC	T6	Gb
2:	II	1D	Ex ta	IIIA	T80° C	Da
3:	I	M2	Ex d	I		Mb

Protection Symbol	Zones			Type of Protection
	0	1	2	
d	-	-	-	Flameproof Enclosure
e	-	-	-	Increased Safety
i	ia	-	-	Intrinsic Safety
	ib	-	-	
	ic	-	-	
m	ma	-	-	Moulding
	mb	-	-	
	mc	-	-	
o	-	-	-	Oil Immersion
q	-	-	-	Powder Filling
n	nA	-	-	Non-sparking
	nC	-	-	Enclosed Break
	nR	-	-	Restricted
	nL	-	-	Limited Energy
p	px	-	-	Pressurized Enclosure
	py	-	-	
	pz	-	-	
Op	Op is	-	-	Optical Radiation
	Op pr	-	-	
	Op sh	-	-	

Protection Symbol	Zones				Type of Protection
	20	21	22		
tD	ta	-	-	-	Protection by Enclosure
	tb	-	-	-	
	tc	-	-	-	
mD	maD	-	-	-	Encapsulation
	mbD	-	-	-	
	mcD	-	-	-	
iD	iaD	-	-	-	Intrinsic Safety
	ibD	-	-	-	
	icD	-	-	-	
pD	-	-	-	-	Pressurized Enclosure

Type of Environment	Group & Class		Hazardous Material in the Atmosphere							
Mines	I		Firedamp	Temperatures according to coal dust accumulation on equipment (<150°C for coal mines or <450°C for not coal mine tunnels)						
Explosive Gases	IIA	IIB		Ammonia Methane Ethane Propane	Ethanol Cyclohexane N-Butane	Petrol Diesel Fuel Fuel Oil N-Hexane	Acetal-de- hyde			
			Ethyl Ether	City Gas Acrylic Nitrile	Ethylene Ethylen Oxide	Ethyl Glycol	Ethyl Ether			
		IIC		Hydrogen	Acetylene				Carbon Disulphide	
Explosive Dusts	III	A	Flammable Fibers	Attention: this list is only a selection of possible flammable mediums and is not complete!						
		B	Non-conductive Dust							
		C	Conductive Dust							
			For dust explosion proof, the max. surface temperature is directly shown (e.g. T80°C)	T1 <450° C						
				T2 <300° C						
				T3 <200° C						
				T4 <135° C						
				T5 <100° C						
				T6 <85° C						

温度等级
Temperature Class

Zone Classification / Equipment Category	Equipment Protection Level(EPL)		
Zone 0/1G	Ga		
Zone 1/2G		Gb	
Zone 2/3G			Gc
Zone 20/1D	Da		
Zone 21/2D		Db	
Zone 22/3D			Dc
NA/M1	Ma		
NA/M2	Mb		

INGRESS PROTECTION (IP) RATINGS

Electric and electronic equipment deteriorate or malfunction when water or dust enters the device. The IEC has developed the ingress protection (IP) ratings, which grade the resistance of an enclosure against the intrusion of dust or liquids. The ratings are widely used throughout industry.

The standard IEC 60529 has specified the degree of protection and divided it into several levels, defined by the IP number, which has the letters IP followed by two digit defines the protection against the ingress of dust particles, the second digit defines the protection against the ingress of water. The table below show IP ratings for electrical connectors.

IP

6

7

1 st DIGIT	LEVEL OF PROTECTION (SOLIDS)
0	No protection
1	Protection against solid particle of diameter greater than 50 mm
2	Protection against solid particle of diameter greater than 12.5 mm
3	Protection against solid particle of diameter greater than 2.5 mm
4	Protection against solid particle of diameter greater than 1 mm
5	Protection against dust particle
6	Full dust protection

2 nd DIGIT	LEVEL OF PROTECTION (LIQUIDS)
0	No protection
1	Protection against vertically dripping water
2	Protection against dripping water when the enclosure is tilted up to 15°
3	Protection against spraying water up to 60° from vertical
4	Protection against water splashing from any direction
5	Protection against directed water jets of low pressure (6.3 mm) from any angle
6	Protection against directed water jets of high pressure (12.5 mm) from any angle
7	Protection against submersion. 30 minutes at a depth up to 1 m
8	Protection against continuous submersion. Depths up to 3 m
9	Protection against directed water jets of high temperature and pressure

ONENESS



INTELLIGENT SOLUTIONS

GUANGZHOU ONENESS TECHNOLOGY CO., LTD

ADD	Room 3713, No. 656, Huangpu Avenue Middle, Tianhe District, Guangzhou, China
TEL	+86 133 3288 5940
WEBSITE	www.onenesstec.com