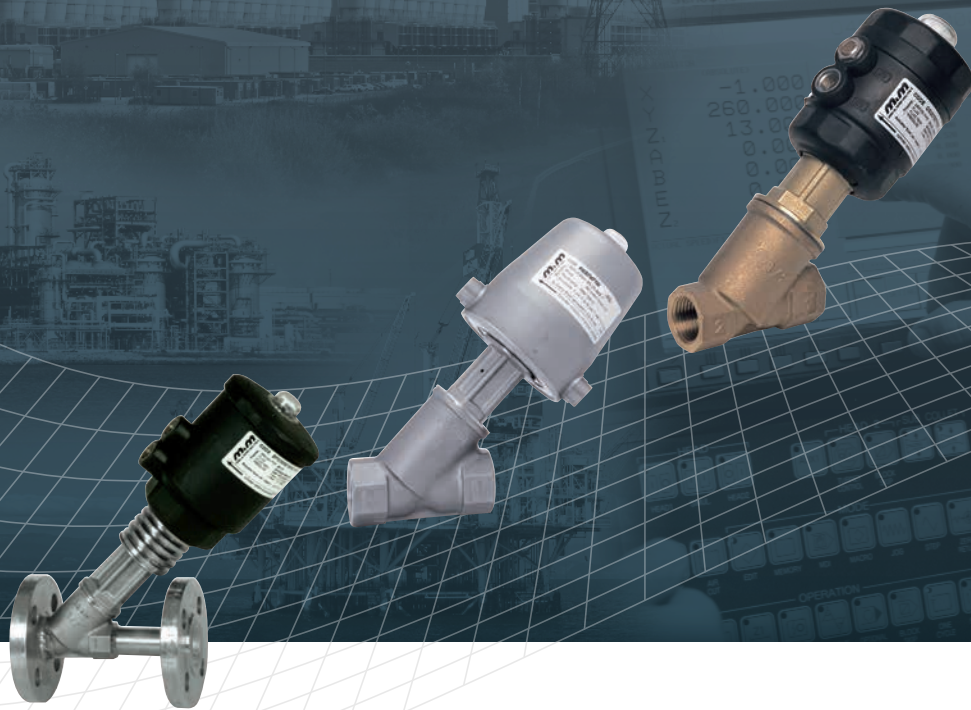


rotork®

Piston Actuated Valves Catalogue



m&m
International

A rotork® Brand

Keeping the World Flowing

rotork®

Keeping the World Flowing



**RELIABILITY
IN FLOW CONTROL
CRITICAL
APPLICATIONS**



› **Reliable operation** when it matters

Assured reliability for critical applications and environments. Whether used 24/7 or infrequently, Rotork products will operate reliably and efficiently when called upon.

› **Quality-driven** global manufacturing

Products designed with 60 years of industry and application knowledge. Research and development across all our facilities ensures cutting edge products are available for every application.

› **Customer-focused service** worldwide support

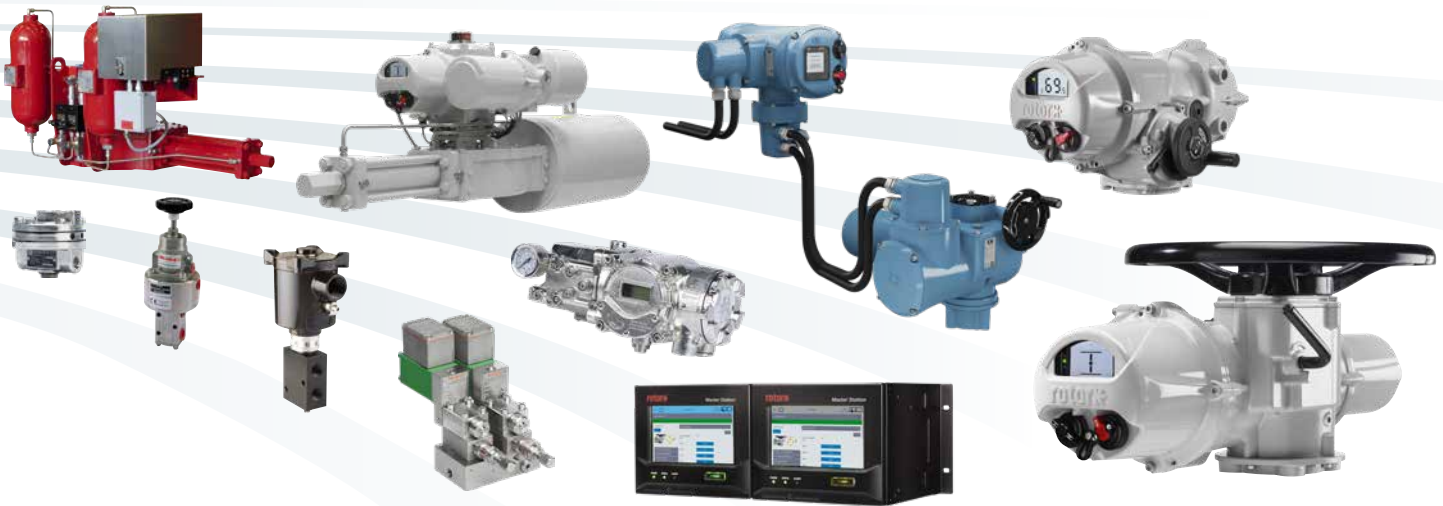
Solving customer challenges and developing new solutions. From initial enquiry through to product installation, long-term after-sales care and Client Support Programmes (CSP).

› **Low cost** of ownership

Long-term reliability prolongs service life. Rotork helps to reduce long term cost of ownership and provides greater efficiency to process and plant.

Piston Actuated Valves

Section	Page	Section	Page
Rotork - Keeping the World Flowing	2	Seal Kits	37
M&M Piston Valves – Features and Benefits	4	Comparative Charts	41
Valve Selection	6	Opening Speed Chart and Actuator Volume	47
Technical Information	7	Coding Chart	47
Product Index	8		



Comprehensive product range serving multiple industries

Improved efficiency, assured safety and environmental protection.

Rotork products and services are used throughout industry inclusive of Power, Oil & Gas, Water & Wastewater, HVAC, Marine, Mining, Pulp & Paper, Food & Beverage, Pharmaceutical and Chemical industries around the world.

Global presence local service

Global company with local support.

Manufacturing sites, service centres, sales offices and *Centres of Excellence* throughout the world provide unrivalled customer services and fast delivery.

Market leader technical innovator

The recognised market leader for 60 years.

Our customers have relied upon Rotork for innovative solutions to safely manage the flow of liquids, gases and powders.

Corporate social responsibility

A responsible business leads to being the best business.

We are socially, ethically, environmentally responsible and committed to embedding CSR across all our processes and ways of working.

M&M Piston Valves – Features and Benefits

› **Standard versions with high performing components:**

Covering a wide range of industrial applications with reduced stock

› **Standard seal materials as FKM and PTFE:** Enhanced compatibility with fluids and resistance at high temperatures

› **Bi-Directional version:** Waterhammer-free installation for liquid fluids

› **Wide choice of connections:** Screw, weld, flange, clamp connections, spigots

› **Actuator housing rotation 360°:** Easy and quick installation

› **Self-registering gland and chevron packing:** Longer life

› **Valve body with angle seat design:**

High flow rate, low pressure drop

› **Stainless steel valves with universal design:** Suitable for vacuum applications

› **M&M pilot solenoid valves with banjo bolt:** User-friendly, quick

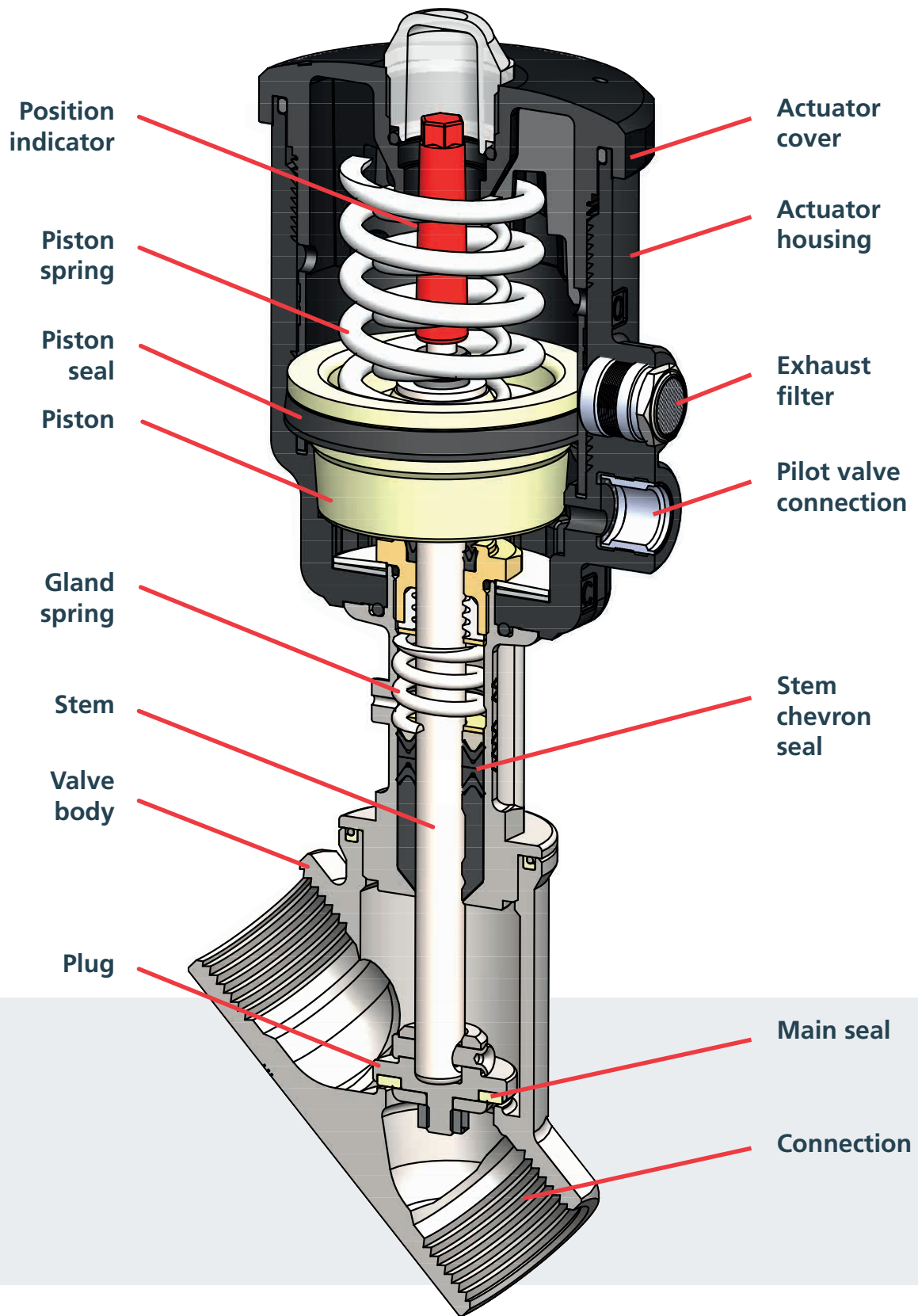
› **Actuator with built-in exhaust filter:**

Reduced noise, longer life

› **Position indicator:**

Instantly visible valve position

› Backed by **Rotork Global Support**



Valve Selection

Piston actuated valves use an external control medium to pilot the actuator, where a piston is directly connected to the main seal that closes onto the main orifice, thereby controlling the flow of liquids and gases.

They are highly recommended under the following conditions:

- Media containing dirt particles
- Highly viscous media (up to 600 cST (80°E) - 1 centistoke = 1 mm²/s)

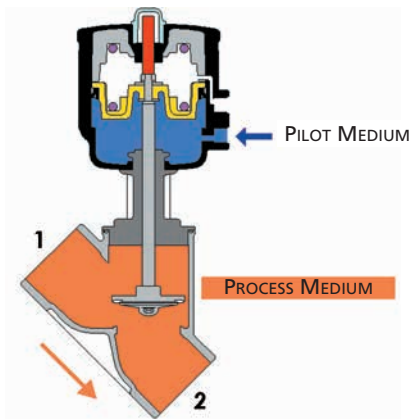
- High flow volumes
- High temperatures
- Damp environments or hazardous locations

Flow values shown in the selection tables are subject to a tolerance of $\pm 15\%$.

M&M International Piston Actuated Valve Versions

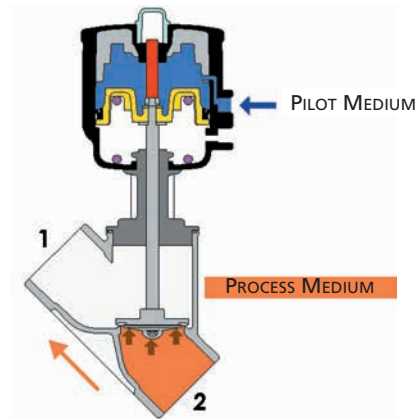
NC Valve – Flow over seat

The pressure of the pilot medium opens the valve, the spring closes it.



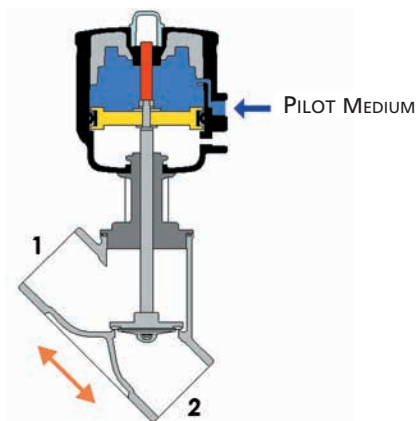
NO Valve – Flow under seat

The pressure of the pilot medium closes the valve, the spring force opens it.



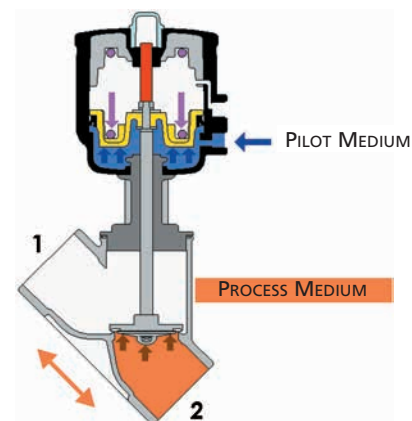
DOUBLE ACTING Valve – Flow over seat or under seat

The pilot medium opens and closes the valve. No springs. Two 3/2 pilot valves required.



BI-DIRECTIONAL NC Valve – Flow over seat or under seat

The pressure of the pilot medium opens the valve, the spring closes it. There are two springs and the valve can be used both over seat and under seat.



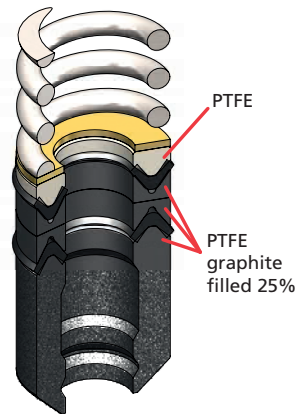
Technical Information

M&M piston actuated valves have been upgraded over the years both by design improvements as well as by using better performing materials. Below you will find some highlights about the outstanding features of M&M piston actuated valves.

Main seal material:

In 2004 standard PTFE was replaced by new modified PTFE and some design changes in the main seal were introduced. Modified PTFE has a better particle fusion, which gives the following improved features in comparison with PTFE:

- Lower porosity and permeability
- Fewer void spaces
- Higher elasticity
- Reduced deformation under load
- Better chemical resistance to controlled media
- Smoother surface and improved design flexibility



Bonnet chevron packing:

Standard bonnet seals consist of 2 'V'-shaped FKM gaskets and a package of 25% graphite-filled PTFE gaskets.

Stainless steel cast parts:

All our stainless steel series are fitted with bodies and bonnets cast specifically to Norm ASME SA351/351M GRADE CF3M, which is the Alloy Casting Institute designation for cast AISI 316L (normally used for wrought materials).

ACI designation is adopted by many standards issuing organizations, such as ASTM (for instance in ASME B 31.3 for stainless steel castings, appendix B and D, concerning recommended selection of materials for valves manufacturing). Our cast AISI 316L has a minimum content of 10% nickel, which gives improved ductility and strength.

This type of stainless steel can be compared to EN 1.4409 with a good approximation.

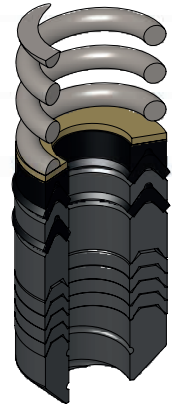
All our stainless steel cast parts bear a heat number identifying the basic material composition. Such details are stated in the casting certificate 3.1b, that can be ordered with the valves at an additional fee.

High temperature piston actuated valves:

M&M has developed a piston actuated valve version that can be used up to 200 °C, provided that the valve pressure limits are respected.

The main differences as regards materials and design are the following:

- Change of the actuator material: from standard PA6 to PA66 filled with 30% fibreglass
- All valves with DN > 25 with fixed plug design (to withstand turbulence caused by steam at high speed)
- Special design of bonnet chevrons, all are made of 25% graphite-filled PTFE






Body Pressure (PN) chart and PED classification:







M&M valve bodies bear a PN value which is to be intended as the body design pressure in bar. We use this value as a reference to perform burst tests on the bodies and bonnets upon quality control acceptance. This value is not related to the applicable medium pressure once the valve is in operation. The correct medium pressure is indicated on the valve label and is specific for each valve size and function.

Product Index

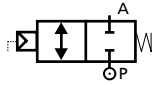
Valve	Code	Type of Connection	Actuator	Page
	BLG - (Bi-Directional)	ISO 228G / NPT	Ø 32	10
	CG - (Normally Closed) RCG - (Normally Open) BCG - (Bi-Directional) DCG - (Double Acting)	ISO 228G / NPT	Ø 45	11
	CG - (Normally Closed) RCG - (Normally Open) BCG - (Bi-Directional) DCG - (Double Acting)	ISO 228G / NPT	Ø 63 Ø 90	12 - 13
	Manual Operation CG -	ISO 228G / NPT	-	14
	Manual Operation PG -	ISO 228G / NPT	-	14
	PG - (Normally Closed) RPG - (Normally Open) BPG - (Bi-Directional) DPG - (Double Acting)	ISO 228G / NPT	Ø 45	15
	PG - (Normally Closed) RPG - (Normally Open) BPG - (Bi-Directional) DPG - (Double Acting)	ISO 228G / NPT	Ø 63 Ø 90	16 - 17
	PW - / PB - (Normally Closed) RPW - / RPB - (Normally Open) BPW - / BPB - (Bi-Directional)	BUTT WELD: DIN 11850-2 pipe ISO 65/ANSI B.36.10 pipe	Ø 45 Ø 63 Ø 90	18 - 19
	PD - / PA - (Normally Closed) RPD - / RPA - (Normally Open) BPD - / BPA - (Bi-Directional)	FLANGED: BS 4504 EN1092 shape B ANSI B16.5 class 150	Ø 63 Ø 90	20 - 21
	PC - / PP - (Normally Closed) RPC - / RPP - (Normally Open) BPC - / BPP - (Bi-Directional)	CLAMP: ISO 2852 ASME BPE	Ø 45 Ø 63 Ø 90	22 - 23
	High Temperature Version PG - (Normally Closed) RPG - (Normally Open) BPG - (Bi-Directional)	ISO 228G / NPT / BUTT WELD FLANGED / CLAMP	Ø 63 Ø 90	24 - 25

Product Index

Valve	Code	Type of Connection	Actuator	Page
	PR- (Normally Closed) RPR- (Normally Open) BPR- (Bi-Directional)	THREADED SPIGOTS	Ø 45 Ø 63 Ø 90	26 - 27
	Atex Piston Actuated Valve PG- (Normally Closed) RPG- (Normally Open) BPG- (Bi-Directional)	ISO 228G / NPT	Ø 63 Ø 90	28 - 29
	Control Piston Actuated Valve ZPG- (flow always under seat)	ISO 228G / NPT	Ø 63 Ø 90	30 - 32

Options/Accessories	Code	Description	Page
	E.g. code PG205STW10 (assembled ex-factory)	Travel Switch Option	33
	E.g. code PG205STWR0 (assembled ex-factory)	Stroke Regulator Option	33
	85703000-/85703100-/85704000- /85704100-	Position Module for Piston Actuated Valve	34
	85701800-	Travel Switch Conversion Kit for Piston Actuated Valve	35
	68000100- / 68000200-	Magnetic Switch For Conversion Kit	35
	B356CVCMK/B326CVCMK/ D326CVCMK	Pilot Solenoid Valves	36
-	Various Part Numbers	Seal Kits	37 - 40

2/2 Way Compact Piston Actuated Valve G 3/8" to 1/2" – Brass

Specifications	
Type: BLG NC Bi-directional flow over/under seat 1 → 2 / 2 → 1	
Media	Water, air, inert fluids, inert gases
Media Temperature	-10 to +90 °C
Ambient Temperature	-10 to +80 °C
Pilot Media	Filtered air
Actuator Body Material	Brass (CW617N EN12165)
Body Material	Brass (CW617N EN12165)
Piston Material	Aluminium
Stem Material	AISI 316l
Seal Material	NBR
Frequency	6 Cycles per minute

Piston valve with external pneumatic actuation, compact and solid construction.

Suitable for neutral media with particles in suspension, on applications where a standard pilot operated solenoid valve may become clogged.

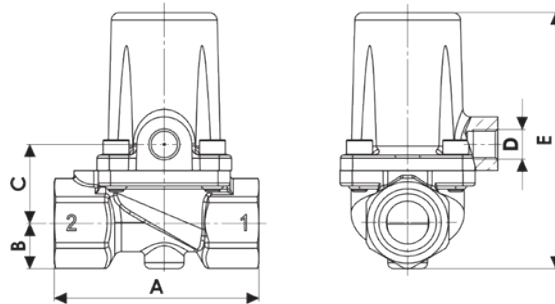


Features and Benefits

- Waterhammer-free design (with flow direction 2 → 1)
- Swift installation with banjo bolt pilot solenoid valve B356CVCMK (see page 36)
- Design suitable for vacuum applications up to 10⁻² mbar

Options Available
NPT Connection, minimum batch may be required (e.g code BLN205DBW00)
Electroless nickel plating treatment (e.g. code BLG205DBW0K)

Dimensions & Weights		DN13.5	DN13.5
G connection	[ISO 228G]	3/8"	1/2"
A	[mm]	67	67
B	[mm]	15	15
C	[mm]	25.5	25.5
D	[mm]	1/8"	1/8"
E	[mm]	84	84
Weight	[kg]	0.55	0.52



Valve	Body Connection	DN	Flow Rate Kvs	Working Pressure Min.	Working Pressure Max.	Flow Direction	Pilot Pressure Min.	Pilot Pressure Max.	Actuator Ø	Function
Code	[ISO 228G]	[mm]	[l/min]	[barg]	[barg]	—	[barg]	[barg]	[mm]	—
BLG204DBW00 ¹	3/8"	13.5	56 / 45	0	10	1 → 2 / 2 → 1	4.5	10	32	NC bidirectional
BLG205DBW00	1/2"	13.5	70 / 55	0	10	1 → 2 / 2 → 1	4.5	10		

Note

1. Minimum batch may be required

2/2 Way Piston Actuated Valve G 1/2" to 1" to Compact Version – Bronze

Specifications	
Type: CG NC flow over seat 1 → 2	
Type: RCG NO flow under seat 2 → 1	
Type: BCG NC Bi-directional flow over/under seat 1 → 2 / 2 → 1	
Type: DCG DA flow over/under seat 1 ↔ 2	
Media	Water, oil, air, steam ¹
Media Temperature	-10 to +180 °C
Ambient Temperature	-10 to +60 °C
Pilot Media ²	Instrument air, inert gases
Actuator Body Material	Polyamide PA6 (reinforced fibreglass 30%)
Body Material	Bronze (CB491K EN1982)
Bonnet Material	Brass (CW617N EN12165)
Seal Material	PTFE
Position Indicator	As standard

Features and Benefits

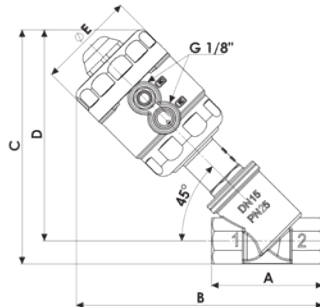
- Waterhammer-free design for BCG - DCG (with flow direction 2→1)
- Actuator housing rotation 360°
- Design suitable for vacuum applications up to 10⁻² mbar



Options Available
NPT Connection (e.g code CN205CTW00)

Accessories
Position module, travel switch kit, pilot solenoid valves see pages 34/35/36

Dimensions & Weights		DN15	DN20	DN25
Actuator	[mm]	Ø 45		
A	[mm]	65	75	90
B	[mm]	144	149	168
C	[mm]	136	142	161
D	[mm]	123	126	141
E	[mm]	57	57	57
Weight	[kg]	0.8	0.9	1.1



The products listed below comply with the requirements of the European Pressure Equipment Directive 2014/68/UE and carry the CE mark when required. The products fall within the following Pressure Equipment Directive categories:

Bodies	Group 1 gases	Group 1 liquids and Group 2 other fluids
DN15 to DN25 (PN25)	art. 4.3	art. 4.3

WARNING!

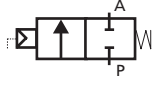
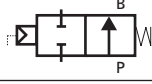
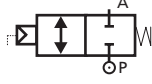
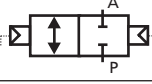
According to the European Pressure Equipment Directive 2014/68/UE liquids whose saturated vapour pressure at the maximum allowable temperature is more than 0,5 barg shall be considered as gases.

Valve Code	Body Connection [ISO 228G]	DN [mm]	Flow Rate Kvs [l/min]	Working Pressure ¹ [barg]		Flow Direction	Pilot Pressure ³ [barg]		Actuator Ø [mm]	Function
				Min.	Max.		Min.	Max.		
CG205CTW00	1/2"	15	75	0	16	1 → 2	3.8	10	45	NC
CG206CTX00	3/4"	20	133	0	16	1 → 2	5.8	10		
CG207CTY00	1"	25	208	0	16	1 → 2	6.5	10		
RCG205CTW00	1/2"	15	75	0	16	2 → 1	4	10	45	NO
RCG206CTX00	3/4"	20	133	0	16	2 → 1	6.2	10		
RCG207CTY00	1"	25	208	0	16	2 → 1	8.8	10		
BCG205CTW00	1/2"	15	75	0	16 / 16	1 → 2 / 2 → 1	6.2 / 5	10	45	NC bidirectional
BCG206CTX00	3/4"	20	133	0	16 / 7	1 → 2 / 2 → 1	8.7 / 5	10		
BCG207CTY00	1"	25	208	0	16 / 5	1 → 2 / 2 → 1	9.5 / 5	10		
DCG205CTW00	1/2"	15	75	0	16 / 16	1 ↔ 2	3	10	45	DA
DCG206CTX00	3/4"	20	133	0	16 / 16	1 ↔ 2	5	10		
DCG207CTY00	1"	25	208	0	16 / 16	1 ↔ 2	8.5	10		

Notes

1. Steam max. working pressure 10 bar (9 barg)
2. Please contact M&M sales Department for other pilot media
3. Minimum pilot pressure at the max. working pressure: for lower working pressures please refer to the comparative charts

2/2 Way Piston Actuated Valve G 1/2" to 2", Regular Version – Bronze

Specifications	
Type: CG NC flow over seat 1 → 2	
Type: RCG NO Flow Under Seat 2 → 1	
Type: BCG NC Bi-Directional Flow Over/Under Seat 1 → 2 / 2 → 1	
Type: DCG DA Flow Over/Under Seat 1 ↔ 2	
Media	Water, oil, air, steam ¹
Media Temperature	-10 to +180 °C
Ambient Temperature	-10 to +60 °C
Pilot Media ²	Instrument air, inert gases
Actuator Body Material	Polyamide PA6 (reinforced fibreglass 30%)
Body Material	Bronze (CB491K EN1982)
Bonnet Material	Brass (CW617N EN12165)
Seal Material	PTFE
Position Indicator	As standard

Features and Benefits

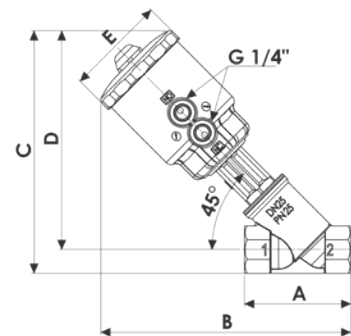
- Waterhammer-free design for BCG - DCG (with flow direction 2→1)
- Actuator housing rotation 360°



Options Available	
Stroke regulator assembled ex-factory, see page 33 (e.g. code CG205STWR0)	
Travel switch assembled ex-factory, see page 33 (e.g. code RCG209STKJ0)	
NPT connection (e.g. code BCN207LTY00)	
Design for vacuum applications up to 10 ⁻² mbar (e.g. code DCG210STJ0J)	

Accessories
Position module, travel switch kit, pilot solenoid valves see pages 34/35/36

Dimensions & Weights		DN15	DN20	DN25	DN32	DN40	DN50	DN25	DN32	DN40	DN50
Actuator	[mm]	Ø 63						Ø 90			
A	[mm]	65	75	90	110	120	150	90	110	120	150
B	[mm]	192	198	212	225	230	248	223	234	239	257
C	[mm]	184	192	205	217	225	241	216	227	235	250
D	[mm]	171	176	185	193	198	207	196	202	207	216
E	[mm]	85	85	85	85	85	85	112	112	112	112
Weight	[kg]	1.2	1.3	1.5	1.9	2.1	2.9	2.0	2.4	2.6	3.3



The products listed below comply with the requirements of the European Pressure Equipment Directive 2014/68/UE and carry the CE mark when required. The products fall within the following Pressure Equipment Directive categories:

Valve Type	Bodies	Group 1 gases	Group 1 liquids and Group 2 other fluids
CG - RCG - BCG - DCG	DN15 to DN25 (PN25)	art. 4.3	art. 4.3
	DN32 to DN40 (PN25)	Not suitable	SEP
	DN50 (PN16)	Not suitable	SEP

⚠ WARNING!

According to the European Pressure Equipment Directive 2014/68/UE, liquids whose saturated vapour pressure at the maximum allowable temperature is more than 0,5 barg shall be considered as gases.

2/2 Way Piston Actuated Valve G 1/2" to 2", Regular Version – Bronze

Valve	Body Connection	DN	Flow Rate Kvs	Working Pressure ¹		Flow Direction	Pilot Pressure ³		Actuator Ø	Function	
Code	[ISO 228G]	[mm]	[l/min]	[barg]	[barg]	—	[barg]	[barg]	[mm]	—	
CG205STW00	1/2"	15	87	0	20	1 → 2	3.7	10	63	NC	
CG206STX00	3/4"	20	164	0	20	1 → 2	4.4	10			
CG207STY00	1"	25	260	0	20	1 → 2	5	10			
CG208STZ00	1 1/4"	32	410	0	16	1 → 2	5.9	10			
CG209STK00	1 1/2"	40	700	0	16	1 → 2	9	10			
CG210STJ00	2"	50	950	0	11	1 → 2	8	10			
CG207LTY00	1"	25	260	0	20	1 → 2	2	8	90		
CG208LTZ00	1 1/4"	32	410	0	16	1 → 2	3.5	8			
CG209LTK00	1 1/2"	40	700	0	16	1 → 2	4	8			
CG210LTJ00	2"	50	950	0	15	1 → 2	6.5	8			
RCG205STW00	1/2"	15	87	0	16	2 → 1	2.5	8	63		NO
RCG206STX00	3/4"	20	164	0	16	2 → 1	4.3	8			
RCG207STY00	1"	25	260	0	16	2 → 1	5.5	8			
RCG208STZ00	1 1/4"	32	410	0	16	2 → 1	6.5	8			
RCG209STK00	1 1/2"	40	700	0	12	2 → 1	8	8			
RCG210STJ00	2"	50	950	0	8	2 → 1	8	8			
RCG207LTY00	1"	25	260	0	16	2 → 1	2	5	90		
RCG208LTZ00	1 1/4"	32	410	0	16	2 → 1	4	5			
RCG209LTK00	1 1/2"	40	700	0	16	2 → 1	5	5			
RCG210LTJ00	2"	50	950	0	10	2 → 1	5	5			
BCG205STW00	1/2"	15	87	0	16	1 → 2 / 2 → 1	5.5 / 3.8	10	63	NC bidirectional	
BCG206STX00	3/4"	20	164	0	16	1 → 2 / 2 → 1	6 / 3.8	10			
BCG207STY00	1"	25	260	0	16 / 11	1 → 2 / 2 → 1	6.5 / 3.8	10			
BCG208STZ00	1 1/4"	32	410	0	16 / 6	1 → 2 / 2 → 1	6.8 / 3.8	10			
BCG209STK00	1 1/2"	40	700	0	12 / 4	1 → 2 / 2 → 1	9 / 3.8	10			
BCG210STJ00	2"	50	950	0	8 / 2.5	1 → 2 / 2 → 1	9 / 3.8	10			
BCG207LTY00	1"	25	260	0	16 / 14	1 → 2 / 2 → 1	4 / 3.3	8	90		
BCG208LTZ00	1 1/4"	32	410	0	16 / 12	1 → 2 / 2 → 1	5 / 3.3	8			
BCG209LTK00	1 1/2"	40	700	0	16 / 8	1 → 2 / 2 → 1	6 / 3.3	8			
BCG210LTJ00	2"	50	950	0	14 / 6	1 → 2 / 2 → 1	8 / 3.3	8			
DCG205STW00	1/2"	15	87	0	16	1 ↔ 2	1.8	2	63		DA
DCG206STX00	3/4"	20	164	0	16	1 ↔ 2	2	3.8			
DCG207STY00	1"	25	260	0	16	1 ↔ 2	3	5			
DCG208STZ00	1 1/4"	32	410	0	16	1 ↔ 2	4.5	6			
DCG209STK00	1 1/2"	40	700	0	16	1 ↔ 2	6.5	7			
DCG210STJ00	2"	50	950	0	10	1 ↔ 2	8	8			

Notes

1. Steam max. working pressure 10 bar (9 barg)
2. Please contact M&M sales Department for other pilot media
3. Minimum pilot pressure at the max. working pressure: for lower working pressures please refer to the comparative charts

Manual Angle Seat Valve G 1/2" to 2" – Bronze (CG) & Stainless Steel (PG)

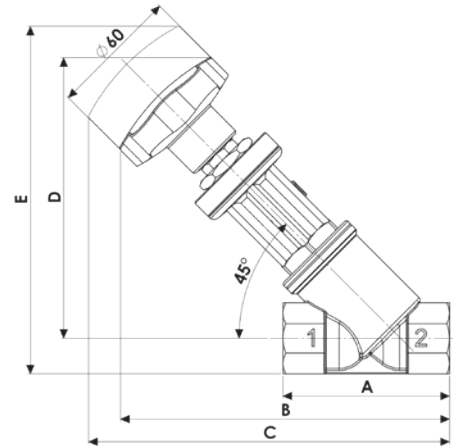
Specifications	
Function Flow over / under seat ¹	Type CG / PG
Media	Water, oil, air, aggressive media, steam ¹
Media Temperature	-10 to +180 °C
Ambient Temperature	-10 to +60 °C
Body Material (CG)	Bronze (CB491K EN1982)
Bonnet Material (CG)	Brass (CW617N EN12165)
Body Material (PG)	Cast AISI 316L (CF3M), see page 7
Bonnet Material (PG)	Cast AISI 316L (CF3M), see page 7
Seal Material	PTFE

¹ Not suitable for use with vacuum



Options Available
NPT connection (e.g. code PN2070TY00)

Dimensions & Weights		DN15	DN20	DN25	DN32	DN40	DN50
G connection	[ISO 228G]	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
A	[mm]	65	75	90	110	120	150
B	[mm]	142	148	163	175	180	198
C	[mm]	150	155	172	188	193	212
D	[mm]	121	126	135	143	148	157
E	[mm]	141	150	165	181	189	205
Weight	[kg]	0.75	0.80	1.20	1.80	2.10	3.10



Valve Code	Body Connection [ISO 228G]	DN [mm]	Flow Rate Kvs [l/min]	Working Pressure ¹		Flow Direction
				Min. [barg]	Max. [barg]	
CG2050TW00	1/2"	15	87	0	25	1 ↔ 2
CG2060TX00	3/4"	20	164	0	25	1 ↔ 2
CG2070TY00	1"	25	260	0	25	1 ↔ 2
CG2080TZ00	1 1/4"	32	410	0	25	1 ↔ 2
CG2090TK00	1 1/2"	40	700	0	25	1 ↔ 2
CG2100TJ00	2"	50	916	0	16	1 ↔ 2
PG2050TW00	1/2"	15	87	0	40	1 ↔ 2
PG2060TX00	3/4"	20	164	0	40	1 ↔ 2
PG2070TY00	1"	25	260	0	40	1 ↔ 2
PG2080TZ00	1 1/4"	32	410	0	25	1 ↔ 2
PG2090TK00	1 1/2"	40	700	0	25	1 ↔ 2
PG2100TJ00	2"	50	916	0	16	1 ↔ 2

Note

1. Steam max. working pressure 10 bar (9 barg)

2/2 Way Piston Actuated Valve G 1/2" to 3/4", Compact Version – Stainless Steel

Specifications	
Type: PG NC flow over seat 1 → 2	
Type RPG: NO flow under seat 2 → 1	
Type: BPG NC bi-directional flow over/under seat 1 → 2 / 2 → 1	
Type: DPG DA flow over/under seat 1 ↔ 2	
Media	Water, oil, air, aggressive media, steam ¹
Media Temperature	-10 to +180 °C
Ambient Temperature	-10 to +60 °C
Pilot Media ²	Instrument air, inert gases
Body Material	Cast AISI 316L (CF3M), see page 7
Bonnet Material	Cast AISI 316L (CF3M), see page 7
Actuator Body Material	Polyamide PA6 (reinforced fibreglass 30%)
Seal Material	PTFE
Position Indicator	As standard

Features and Benefits

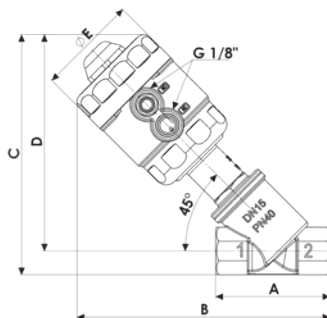
- Waterhammer-free design for BPG - DPG (with flow direction 2 → 1)
- Actuator housing rotation 360°
- Design suitable for vacuum applications up to 10⁻² mbar



Options Available
NPT connection (e.g. code PN205CTW00)

Accessories
Position module, travel switch kit, pilot solenoid valves see pages 34/35/36

Dimensions & Weights		DN15	DN20
Actuator	[mm]	Ø 45	
A	[mm]	65	75
B	[mm]	144	149
C	[mm]	136	142
D	[mm]	123	126
E	[mm]	57	57
Weight	[kg]	0.8	0.9



The products listed below comply with the requirements of the European Pressure Equipment Directive 2014/68/UE and carry the CE mark when required. The products fall within the following Pressure Equipment Directive categories:

Bodies	Group 1 gases	Group 1 liquids and Group 2 other fluids
DN15 to DN20 (PN40)	art. 4.3	art. 4.3

⚠ WARNING!

According to the European Pressure Equipment Directive 2014/68/UE, liquids whose saturated vapour pressure at the maximum allowable temperature is more than 0,5 barg shall be considered as gases.

Valve	Body Connection	DN	Flow Rate Kvs	Working Pressure ¹		Flow Direction	Pilot Pressure ³		Actuator Ø	Function
				Min.	Max.		Min.	Max.		
Code	[ISO 228G]	[mm]	[l/min]	[barg]	[barg]	—	[barg]	[barg]	[mm]	—
PG205CTW00	1/2"	15	75	0	16	1 → 2	3.8	10	45	NC
PG206CTX00	3/4"	20	133	0	16	1 → 2	5.8	10		
RPG205CTW00	1/2"	15	75	0	16	2 → 1	4	10	45	NO
RPG206CTX00	3/4"	20	133	0	16	2 → 1	6.2	10		
BPG205CTW00	1/2"	15	75	0	16 / 16	1 → 2 / 2 → 1	6.2 / 5	10	45	NC bidirectional
BPG206CTX00	3/4"	20	133	0	16 / 7	1 → 2 / 2 → 1	8.7 / 5	10		
DPG205CTW00	1/2"	15	75	0	16 / 16	1 ↔ 2	3	10	45	DA
DPG206CTX00	3/4"	20	133	0	16 / 16	1 ↔ 2	5	10		

Notes

1. Steam max. working pressure 10 bar (9 barg)
2. Please contact M&M sales Department for other pilot media
3. Minimum pilot pressure at the max. working pressure: for lower working pressures please refer to the comparative charts

2/2 Way Piston Actuated Valve G 1/2" to 2", Regular Version - Stainless Steel

Specifications	
Type: PG NC flow over seat 1 → 2	
Type: RPG NO flow under seat 2 → 1	
Type: BPG NC bi-directional flow over/under seat 1 → 2 / 2 → 1	
Type: DPG DA flow over/under seat 1 ↔ 2	
Media	Water, oil, air, aggressive media, steam ¹
Media Temperature	-10 to +180 °C
Ambient Temperature	-10 to +60 °C
Pilot Media ²	Instrument air, inert gases
Body Material	Cast AISI 316L (CF3M), see page 7
Bonnet Material	Cast AISI 316L (CF3M), see page 7
Actuator Body Material	Polyamide PA6 (reinforced fiberglass 30%)
Seal Material	PTFE
Position Indicator	As standard

Features and Benefits

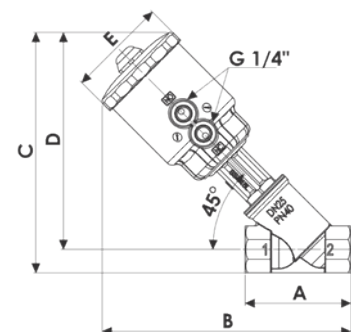
- Waterhammer-free design for BPG - DPG (with flow direction 2 → 1)
- Actuator housing rotation 360°
- Design suitable for vacuum applications up to 10⁻² mbar



Options Available	
Stroke regulator assembled ex-factory, see page 33 (e.g. code RPG210STJR0)	
Travel switch assembled ex-factory, see page 33 (e.g. code PG208STZJ0)	
NPT connection (e.g. code BPN207LTY00)	
High temperature version, see pages 24/25 (e.g. code PG205STW0H)	

Accessories	
Position module, travel switch kit, pilot solenoid valves see pages 34/35/36	

Dimensions & Weights		DN15	DN20	DN25	DN32	DN40	DN50	DN25	DN32	DN40	DN50
Actuator	[mm]	Ø 63						Ø 90			
A	[mm]	65	75	90	110	120	150	90	110	120	150
B	[mm]	192	198	212	225	230	248	223	234	239	257
C	[mm]	184	192	205	217	225	241	216	227	235	250
D	[mm]	171	176	185	193	198	207	196	202	207	216
E	[mm]	85	85	85	85	85	85	112	112	112	112
Weight	[kg]	1.2	1.3	1.5	1.9	2.1	2.9	2.0	2.4	2.6	3.3



The products listed below comply with the requirements of the European Pressure Equipment Directive 2014/68/UE and carry the CE mark when required. The products fall within the following Pressure Equipment Directive categories:

Valve Type	Bodies	Group 1 gases	Group 1 liquids and Group 2 other fluids
PG - RPG - BPG - DPG	DN15 to DN25 (PN40)	art. 4.3	art. 4.3
	DN32 to DN40 (PN25)	Category I	art. 4.3
	DN50 (PN16)	Category I	art. 4.3

⚠ WARNING!

According to the European Pressure Equipment Directive 2014/68/UE, liquids whose saturated vapour pressure at the maximum allowable temperature is more than 0,5 barg shall be considered as gases.

2/2 Way Piston Actuated Valve G 1/2" to 2", Regular Version – Stainless Steel

Valve	Body Connection	DN	Flow Rate Kvs	Working Pressure ¹		Flow Direction	Pilot Pressure ³		Actuator Ø	Function
Code	[ISO 228G]	[mm]	[l/min]	[barg]	[barg]	—	[barg]	[barg]	[mm]	—
PG205STW00	1/2"	15	87	0	20	1 → 2	3.7	10	63	NC
PG206STX00	3/4"	20	164	0	20	1 → 2	4.4	10		
PG207STY00	1"	25	260	0	20	1 → 2	5	10		
PG208STZ00	1 1/4"	32	410	0	16	1 → 2	5.9	10		
PG209STK00	1 1/2"	40	700	0	16	1 → 2	9	10		
PG210STJ00	2"	50	950	0	11	1 → 2	8	10		
PG207LTY00	1"	25	260	0	20	1 → 2	2	8	90	
PG208LTZ00	1 1/4"	32	410	0	16	1 → 2	3.5	8		
PG209LTK00	1 1/2"	40	700	0	16	1 → 2	4	8		
PG210LTJ00	2"	50	950	0	15	1 → 2	6.5	8		
RPG205STW00	1/2"	15	87	0	16	2 → 1	2.5	8	63	NO
RPG206STX00	3/4"	20	164	0	16	2 → 1	4.3	8		
RPG207STY00	1"	25	260	0	16	2 → 1	5.5	8		
RPG208STZ00	1 1/4"	32	410	0	16	2 → 1	6.5	8		
RPG209STK00	1 1/2"	40	700	0	12	2 → 1	8	8		
RPG210STJ00	2"	50	950	0	8	2 → 1	8	8		
RPG207LTY00	1"	25	260	0	16	2 → 1	2	5	90	
RPG208LTZ00	1 1/4"	32	410	0	16	2 → 1	4	5		
RPG209LTK00	1 1/2"	40	700	0	16	2 → 1	5	5		
RPG210LTJ00	2"	50	950	0	10	2 → 1	5	5		
BPG205STW00	1/2"	15	87	0	16	1 → 2 / 2 → 1	5.5 / 3.8	10	63	NC bidirectional
BPG206STX00	3/4"	20	164	0	16	1 → 2 / 2 → 1	6 / 3.8	10		
BPG207STY00	1"	25	260	0	16 / 11	1 → 2 / 2 → 1	6.5 / 3.8	10		
BPG208STZ00	1 1/4"	32	410	0	16 / 6	1 → 2 / 2 → 1	6.8 / 3.8	10		
BPG209STK00	1 1/2"	40	700	0	12 / 4	1 → 2 / 2 → 1	9 / 3.8	10		
BPG210STJ00	2"	50	950	0	8 / 2.5	1 → 2 / 2 → 1	9 / 3.8	10		
BPG207LTY00	1"	25	260	0	16 / 14	1 → 2 / 2 → 1	4 / 3.3	8	90	
BPG208LTZ00	1 1/4"	32	410	0	16 / 12	1 → 2 / 2 → 1	5 / 3.3	8		
BPG209LTK00	1 1/2"	40	700	0	16 / 8	1 → 2 / 2 → 1	6 / 3.3	8		
BPG210LTJ00	2"	50	950	0	14 / 6	1 → 2 / 2 → 1	8 / 3.3	8		
DPG205STW00	1/2"	15	87	0	16	1 ↔ 2	1.8	2	63	DA
DPG206STX00	3/4"	20	164	0	16	1 ↔ 2	2	3.8		
DPG207STY00	1"	25	260	0	16	1 ↔ 2	3	5		
DPG208STZ00	1 1/4"	32	410	0	16	1 ↔ 2	4.5	6		
DPG209STK00	1 1/2"	40	700	0	16	1 ↔ 2	6.5	7		
DPG210STJ00	2"	50	950	0	10	1 ↔ 2	8	8		

Notes

1. Steam max. working pressure 10 bar (9 barg)
2. Please contact M&M sales Department for other pilot media
3. Minimum pilot pressure at the max. working pressure: for lower working pressures please refer to the comparative charts

2/2 Way Piston Actuated Valve Butt Weld Connection – Stainless Steel

Specifications	
Type: PW/PB NC flow over seat 1 → 2	
Type: RPW/RPB NO flow under seat 2 → 1	
Type: BPW/BPB NC bi-directional flow over/under seat 1 → 2 / 2 → 1	
Media	Water, oil, air, aggressive media, steam ¹
Media Temperature	-10 to +180 °C
Ambient Temperature	-10 to +60 °C
Pilot Media ²	Instrument air, inert gases
Body Material	Cast AISI 316L (CF3M), see page 7
Bonnet Material	Cast AISI 316L (CF3M), see page 7
Butt Weld Connection	DIN 11850-2 pipe or ISO 65/ANSI B 36.10 pipe
Actuator Body Material	Polyamide PA6 (reinforced fiberglass 30%)
Seal Material	PTFE
Position Indicator	As standard

Features and Benefits

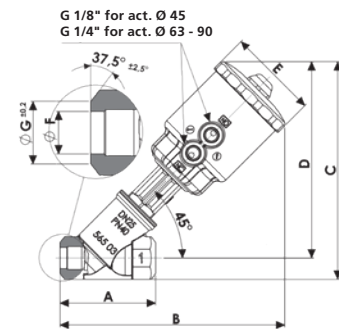
- Waterhammer-free design for BPW - BPB (with flow direction 2 → 1)
- Actuator housing rotation 360°
- Design suitable for vacuum applications up to 10⁻² mbar



Options Available
Stroke regulator assembled ex-factory, see page 33 (e.g. code RPW210STJ0)
Travel switch assembled ex-factory, see page 33 (e.g. code PB208STZ0)
High temperature version, see pages 24/25 (e.g. code BPW207LTY0H)

Accessories
Position module, travel switch kit, pilot solenoid valves see pages 34/35/36

Dimensions & Weights		DN15	DN20	DN15	DN20	DN25	DN32	DN40	DN50	DN25	DN32	DN40	DN50
Actuator	[mm]	Ø 45		Ø 63						Ø 90			
A	[mm]	65	75	65	75	90	110	120	150	90	110	120	150
B	[mm]	144	149	192	198	212	225	230	248	223	234	239	257
C	[mm]	136	142	184	192	205	217	225	241	216	227	235	250
D	[mm]	123	126	171	176	185	193	198	207	196	202	207	216
E	[mm]	57	57	85	85	85	85	85	85	112	112	112	112
F DIN 11850	[mm]	16	20	16	20	26	32	38	50	26	32	38	50
F ISO 65/ANSI B 36.10	[mm]	17.4	22.8	17.4	22.8	28.3	37.1	42.7	54.8	28.3	37.1	42.7	54.8
G DIN 11850	[mm]	19.2	23.2	19.2	23.2	29.2	36	42	54	29.2	36	42	54
G ISO 65/ANSI B 36.10	[mm]	20.6	26	20.6	26	31.5	41.1	46.7	58.8	31.5	41.1	46.7	58.8
Weight	[kg]	0.8	0.9	1.2	1.3	1.5	1.9	2.1	2.9	2.0	2.4	2.6	3.3



Welded ends complying with ISO 6761

The products listed below comply with the requirements of the European Pressure Equipment Directive 2014/68/UE and carry the CE mark when required. The products fall within the following Pressure Equipment Directive categories:

Valve Type	Bodies	Group 1 gases	Group 1 liquids and Group 2 other fluids
PW - RPW - BPW PB - RPB - BPB	DN15 to DN25 (PN40)	art. 4.3	art. 4.3
	DN32 to DN40 (PN25)	Category I	art. 4.3
	DN50 (PN16)	Category I	art. 4.3

⚠ WARNING!

According to the European Pressure Equipment Directive 2014/68/UE, liquids whose saturated vapour pressure at the maximum allowable temperature is more than 0,5 barg shall be considered as gases.

Notes

1. Steam max. working pressure 10 bar (9 barg)
2. Please contact M&M sales Department for other pilot media
3. Minimum pilot pressure at the max. working pressure: for lower working pressures please refer to the comparative charts (for different part numbers: e.g. PW205STW00 please refer to the equivalent part number PG205STW00 for threaded connection)

2/2 Way Piston Actuated Valve Butt Weld Connection – Stainless Steel

Valve Code	Body Connection	DN [mm]	Flow Rate Kvs [l/min]	Working Pressure ¹		Flow Direction	Pilot Pressure ³		Actuator Ø [mm]	Function
				Min. [barg]	Max. [barg]		Min. [barg]	Max. [barg]		
PW205CTW00	butt weld to DIN 11850-2 pipe	15	75	0	16	1 → 2	3.8	10	45	NC
PW206CTX00		20	133	0	16	1 → 2	5.8	10		
PW205STW00		15	87	0	20	1 → 2	3.7	10		
PW206STX00		20	164	0	20	1 → 2	4.4	10	63	
PW207STY00		25	260	0	20	1 → 2	5	10		
PW208STZ00		32	410	0	16	1 → 2	5.9	10		
PW209STK00		40	700	0	16	1 → 2	9	10		
PW210STJ00		50	950	0	11	1 → 2	8	10	90	
PW207LTY00		25	260	0	20	1 → 2	2	8		
PW208LTZ00		32	410	0	16	1 → 2	3.5	8		
PW209LTK00		40	700	0	16	1 → 2	4	8		
PW210LTJ00		50	950	0	15	1 → 2	6.5	8		
RPW205CTW00		butt weld to DIN 11850-2 pipe	15	75	0	16	2 → 1	4	8	
RPW206CTX00	20		133	0	16	2 → 1	6.2	8		
RPW205STW00	15		87	0	16	2 → 1	2.5	8		
RPW206STX00	20		164	0	16	2 → 1	4.3	8	63	
RPW207STY00	25		260	0	16	2 → 1	5.5	8		
RPW208STZ00	32		410	0	16	2 → 1	6.5	8		
RPW209STK00	40		700	0	12	2 → 1	8	8		
RPW210STJ00	50		950	0	8	2 → 1	8	8	90	
RPW207LTY00	25		260	0	16	2 → 1	2	5		
RPW208LTZ00	32		410	0	16	2 → 1	4	5		
RPW209LTK00	40		700	0	16	2 → 1	5	5		
RPW210LTJ00	50		950	0	10	2 → 1	5	5		
BPW205CTW00	butt weld to DIN 11850-2 pipe		15	75	0	16/16	1 → 2/2 → 1	6.2/5	10	45
BPW206CTX00		20	133	0	16/7	1 → 2/2 → 1	8.7/5	10		
BPW205STW00		15	87	0	16	1 → 2/2 → 1	5.5/3.8	10		
BPW206STX00		20	164	0	16	1 → 2/2 → 1	6/3.8	10	63	
BPW207STY00		25	260	0	16/11	1 → 2/2 → 1	6.5/3.8	10		
BPW208STZ00		32	410	0	16/6	1 → 2/2 → 1	6.8/3.8	10		
BPW209STK00		40	700	0	12/4	1 → 2/2 → 1	9/3.8	10		
BPW210STJ00		50	950	0	8/2.5	1 → 2/2 → 1	9/3.8	10	90	
BPW207LTY00		25	260	0	16/14	1 → 2/2 → 1	4/3.3	8		
BPW208LTZ00		32	410	0	16/12	1 → 2/2 → 1	5/3.3	8		
BPW209LTK00		40	700	0	16/8	1 → 2/2 → 1	6/3.3	8		
BPW210LTJ00		50	950	0	14/6	1 → 2/2 → 1	8/3.3	8		
PB205CTW00		butt weld to ISO 65/ ANSI B 36.10 pipe	15	75	0	16	1 → 2	3.8	10	45
PB206CTX00	20		133	0	16	1 → 2	5.8	10		
PB205STW00	15		87	0	20	1 → 2	3.7	10		
PB206STX00	20		164	0	20	1 → 2	4.4	10	63	
PB207STY00	25		260	0	20	1 → 2	5	10		
PB208STZ00	32		410	0	16	1 → 2	5.9	10		
PB209STK00	40		700	0	16	1 → 2	9	10		
PB210STJ00	50		950	0	11	1 → 2	8	10	90	
PB207LTY00	25		260	0	20	1 → 2	2	8		
PB208LTZ00	32		410	0	16	1 → 2	3.5	8		
PB209LTK00	40		700	0	16	1 → 2	4	8		
PB210LTJ00	50		950	0	15	1 → 2	6.5	8		
RPB205CTW00	butt weld to ISO 65/ ANSI B 36.10 pipe		15	75	0	16	2 → 1	4	8	45
RPB206CTX00		20	133	0	16	2 → 1	6.2	8		
RPB205STW00		15	87	0	16	2 → 1	2.5	8		
RPB206STX00		20	164	0	16	2 → 1	4.3	8	63	
RPB207STY00		25	260	0	16	2 → 1	5.5	8		
RPB208STZ00		32	410	0	16	2 → 1	6.5	8		
RPB209STK00		40	700	0	12	2 → 1	8	8		
RPB210STJ00		50	950	0	8	2 → 1	8	8	90	
RPB207LTY00		25	260	0	16	2 → 1	2	5		
RPB208LTZ00		32	410	0	16	2 → 1	4	5		
RPB209LTK00		40	700	0	16	2 → 1	5	5		
RPB210LTJ00		50	950	0	10	2 → 1	5	5		
BPB205CTW00		butt weld to ISO 65/ ANSI B 36.10 pipe	15	75	0	16/16	1 → 2/2 → 1	6.2/5	10	45
BPB206CTX00	20		133	0	16/7	1 → 2/2 → 1	8.7/5	10		
BPB205STW00	15		87	0	16	1 → 2/2 → 1	5.5/3.8	10		
BPB206STX00	20		164	0	16	1 → 2/2 → 1	6/3.8	10	63	
BPB207STY00	25		260	0	16/11	1 → 2/2 → 1	6.5/3.8	10		
BPB208STZ00	32		410	0	16/6	1 → 2/2 → 1	6.8/3.8	10		
BPB209STK00	40		700	0	12/4	1 → 2/2 → 1	9/3.8	10		
BPB210STJ00	50		950	0	8/2.5	1 → 2/2 → 1	9/3.8	10	90	
BPB207LTY00	25		260	0	16/14	1 → 2/2 → 1	4/3.3	8		
BPB208LTZ00	32		410	0	16/12	1 → 2/2 → 1	5/3.3	8		
BPB209LTK00	40		700	0	16/8	1 → 2/2 → 1	6/3.3	8		
BPB210LTJ00	50		950	0	14/6	1 → 2/2 → 1	8/3.3	8		

2/2 Way Piston Actuated Valve Flanged – Stainless Steel

Specifications	
Type: PD/PA NC flow over seat 1 → 2	
Type: RPD/RPA NO flow under seat 2 → 1	
Type: BPD/BPA NC bi-directional flow over/under seat 1 → 2 / 2 → 1	
Media	Water, oil, air, aggressive media, steam ¹
Media Temperature	-10 to +180 °C
Ambient Temperature	-10 to +60 °C
Pilot Media ²	Instrument air, inert gases
Body Material	Cast AISI 316L (CF3M), see page 7
Flange Material	cast AISI 316L
Connection	BS 4504 (EN1092, shape B) or ANSI B16.5 class 150
Bonnet Material	Cast AISI 316L (CF3M), see page 7
Actuator Body Material	Polyamide PA6 (reinforced fiberglass 30%)
Seal Material	PTFE
Position Indicator	As standard

Features and Benefits

- Waterhammer-free design for BPD - BPA (with flow direction 2 → 1)
- Actuator housing rotation 360°
- Design for vacuum applications up to 10⁻² mbar

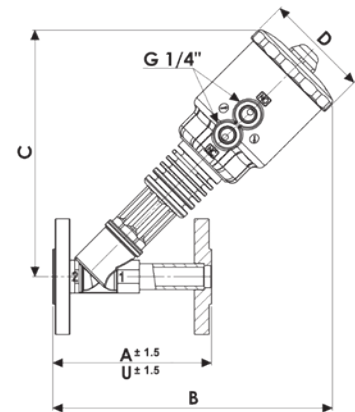


Options Available
Stroke regulator assembled ex-factory, see page 33 (e.g. code PD210STJR0)
Travel switch assembled ex-factory, see page 33 (e.g. code RPA208LTZ0)
High temperature version, see pages 24/25 (e.g. code PD205STW0H)

Accessories
Position module, travel switch kit, pilot solenoid valves see pages 34/35/36

Dimensions & Weights		DN15	DN20	DN25	DN32	DN40	DN50	DN25	DN32	DN40	DN50
Actuator	[mm]	Ø 63						Ø 90			
A (ANSI)	[mm]	139.7	152.4	165.1	184.2	203.2	228.6	165.1	184.2	203.2	228.6
U (BS/UNI/EN)	[mm]	130	150	160	180	200	230	160	180	200	230
B	[mm]	218	236	239	252	257	275	250	263	268	286
C	[mm]	194	210	208	216	220	230	219	227	232	240
D	[mm]	85	85	85	85	85	85	112	112	112	112
Weight	[kg]	2.6	3.0	3.8	5.6	6.5	8.7	4.4	6.0	6.9	9.1

A = face to face to ANSI B 16.10
U = face to face to EN 558-1



The products listed below comply with the requirements of the European Pressure Equipment Directive 2014/68/UE and carry the CE mark when required. The products fall within the following Pressure Equipment Directive categories:

Valve Type	Bodies	Group 1 gases	Group 1 liquids and Group 2 other fluids
PD - RPD - BPD PA - RPA - BPA	DN15 to DN25 (PN40)	art. 4.3	art. 4.3
	DN32 to DN40 (PN25)	Category I	art. 4.3
	DN50 (PN16)	Category I	art. 4.3

⚠ WARNING!

According to the European Pressure Equipment Directive 2014/68/UE, liquids whose saturated vapour pressure at the maximum allowable temperature is more than 0,5 barg shall be considered as gases.

Notes

1. Steam max. working pressure 10 bar (9 barg)
2. Please contact M&M sales Department for other pilot media
3. Minimum pilot pressure at the max. working pressure: for lower working pressures please refer to the comparative charts (for different part numbers: e.g. PD205STW00 please refer to the equivalent part number PG205STW00 for threaded connection)

2/2 Way Piston Actuated Valve Flanged – Stainless Steel

Valve	Body Connection	DN	Flow Rate Kvs	Working Pressure ¹		Flow Direction	Pilot Pressure ³		Actuator Ø	Function
Code	—	[mm]	[l/min]	[barg]	[barg]	—	[barg]	[barg]	[mm]	—
PD205STW00	flanges to BS 4504 EN1092 shape B	15	87	0	20	1 → 2	3.7	10	63	NC
PD206STX00		20	164	0	20	1 → 2	4.4	10		
PD207STY00		25	260	0	20	1 → 2	5	10		
PD208STZ00		32	410	0	16	1 → 2	5.9	10		
PD209STK00		40	700	0	16	1 → 2	9	10		
PD210STJ00		50	950	0	11	1 → 2	8	10		
PD207LTY00		25	260	0	20	1 → 2	2	8	90	
PD208LTZ00		32	410	0	16	1 → 2	3.5	8		
PD209LTK00		40	700	0	16	1 → 2	4	8		
PD210LTJ00		50	950	0	15	1 → 2	6.5	8		
RPD205STW00	flanges to BS 4504 EN1092 shape B	15	87	0	16	2 → 1	2.5	8	63	NO
RPD206STX00		20	164	0	16	2 → 1	4.3	8		
RPD207STY00		25	260	0	16	2 → 1	5.5	8		
RPD208STZ00		32	410	0	16	2 → 1	6.5	8		
RPD209STK00		40	700	0	12	2 → 1	8	8		
RPD210STJ00		50	950	0	8	2 → 1	8	8		
RPD207LTY00		25	260	0	16	2 → 1	2	5	90	
RPD208LTZ00		32	410	0	16	2 → 1	4	5		
RPD209LTK00		40	700	0	16	2 → 1	5	5		
RPD210LTJ00		50	950	0	10	2 → 1	5	5		
BPD205STW00	flanges to BS 4504 EN1092 shape B	15	87	0	16	1 → 2 / 2 → 1	5.5 / 3.8	10	63	NC bidirectional
BPD206STX00		20	164	0	16	1 → 2 / 2 → 1	6 / 3.8	10		
BPD207STY00		25	260	0	16 / 11	1 → 2 / 2 → 1	6.5 / 3.8	10		
BPD208STZ00		32	410	0	16 / 6	1 → 2 / 2 → 1	6.8 / 3.8	10		
BPD209STK00		40	700	0	12 / 4	1 → 2 / 2 → 1	9 / 3.8	10		
BPD210STJ00		50	950	0	8 / 2.5	1 → 2 / 2 → 1	9 / 3.8	10		
BPD207LTY00		25	260	0	16 / 14	1 → 2 / 2 → 1	4 / 3.3	8	90	
BPD208LTZ00		32	410	0	16 / 12	1 → 2 / 2 → 1	5 / 3.3	8		
BPD209LTK00		40	700	0	16 / 8	1 → 2 / 2 → 1	6 / 3.3	8		
BPD210LTJ00		50	950	0	14 / 6	1 → 2 / 2 → 1	8 / 3.3	8		
PA205STW00	flanges to ANSI B16.5 class 150	15	87	0	20	1 → 2	3.7	10	63	NC
PA206STX00		20	164	0	20	1 → 2	4.4	10		
PA207STY00		25	260	0	20	1 → 2	5	10		
PA208STZ00		32	410	0	16	1 → 2	5.9	10		
PA209STK00		40	700	0	16	1 → 2	9	10		
PA210STJ00		50	950	0	11	1 → 2	8	10		
PA207LTY00		25	260	0	20	1 → 2	2	8	90	
PA208LTZ00		32	410	0	16	1 → 2	3.5	8		
PA209LTK00		40	700	0	16	1 → 2	4	8		
PA210LTJ00		50	950	0	15	1 → 2	6.5	8		
RPA205STW00	flanges to ANSI B16.5 class 150	15	87	0	16	2 → 1	2.5	8	63	NO
RPA206STX00		20	164	0	16	2 → 1	4.3	8		
RPA207STY00		25	260	0	16	2 → 1	5.5	8		
RPA208STZ00		32	410	0	16	2 → 1	6.5	8		
RPA209STK00		40	700	0	12	2 → 1	8	8		
RPA210STJ00		50	950	0	8	2 → 1	8	8		
RPA207LTY00		25	260	0	16	2 → 1	2	5	90	
RPA208LTZ00		32	410	0	16	2 → 1	4	5		
RPA209LTK00		40	700	0	16	2 → 1	5	5		
RPA210LTJ00		50	950	0	10	2 → 1	5	5		
BPA205STW00	flanges to ANSI B16.5 class 150	15	87	0	16	1 → 2 / 2 → 1	5.5 / 3.8	10	63	NC bidirectional
BPA206STX00		20	164	0	16	1 → 2 / 2 → 1	6 / 3.8	10		
BPA207STY00		25	260	0	16 / 11	1 → 2 / 2 → 1	6.5 / 3.8	10		
BPA208STZ00		32	410	0	16 / 6	1 → 2 / 2 → 1	6.8 / 3.8	10		
BPA209STK00		40	700	0	12 / 4	1 → 2 / 2 → 1	9 / 3.8	10		
BPA210STJ00		50	950	0	8 / 2.5	1 → 2 / 2 → 1	9 / 3.8	10		
BPA207LTY00		25	260	0	16 / 14	1 → 2 / 2 → 1	4 / 3.3	8	90	
BPA208LTZ00		32	410	0	16 / 12	1 → 2 / 2 → 1	5 / 3.3	8		
BPA209LTK00		40	700	0	16 / 8	1 → 2 / 2 → 1	6 / 3.3	8		
BPA210LTJ00		50	950	0	14 / 6	1 → 2 / 2 → 1	8 / 3.3	8		

2/2 Way Piston Actuated Valve Clamp – Stainless Steel

Specifications	
Type: PC/PP NC flow over seat 1 → 2	
Type: RPC/RPP NO flow under seat 2 → 1	
Type: BPC/BPP NC bi-directional flow over/under seat 1 → 2 / 2 → 1	
Media	Water, oil, air, aggressive media, steam ¹
Media Temperature	-10 to +180 °C
Ambient Temperature	-10 to +60 °C
Pilot Media ²	Instrument air, inert gases
Body Material	Cast AISI 316L (CF3M), see page 7
Clamp End Material	AISI 316L
Clamp Connection	ISO 2852 or ASME BPE
Bonnet Material	Cast AISI 316L (CF3M), see page 7
Actuator Body Material	Polyamide PA6 (reinforced fiberglass 30%)
Seal Material	PTFE
Position Indicator	As standard
Gasket and Clamp	Not included

Features and Benefits

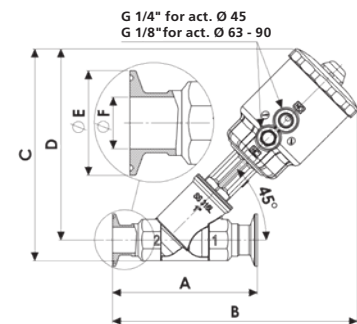
- Waterhammer-free design for BPC - BPP (with flow direction 2 → 1)
- Actuator housing rotation 360°
- Design suitable for vacuum applications up to 10⁻² mbar



Options Available
Stroke regulator assembled ex-factory, see page 33 (e.g. code PC210STJ0)
Travel switch assembled ex-factory, see page 33 (e.g. code RPC208LTZ0)

Accessories
Position module, travel switch kit, pilot solenoid valves see pages 34/35/36

Dimensions & Weights		DN15	DN20	DN15	DN20	DN25	DN32	DN40	DN50	DN25	DN32	DN40	DN50
Actuator	[mm]	Ø 45		Ø 63						Ø 90			
A - ISO	[mm]	102	114	102	114	140	159	159	190	140	159	159	190
A - ASME	[mm]	102	114	102	114	140	-	159	190	140	-	159	190
B - ISO	[mm]	162	167	210	217	231	240	249	267	243	251	260	279
B - ASME	[mm]	162	167	210	217	231	-	249	267	243	-	260	279
C - ISO	[mm]	140	142	187	193	211	218	229	240	222	230	241	251
C - ASME	[mm]	136	138	183	189	211	-	223	240	222	-	235	251
D	[mm]	123	125	170	176	185	192	197	206	196	204	209	217
E - ISO	[mm]	34	34	34	34	50.5	50.5	64	64	50.5	50.5	64	64
E - ASME	[mm]	25	25	25	25	50.5	-	50.5	64	50.5	-	50.5	64
F - ISO	[mm]	17.2	21.3	17.2	21.3	25	33.7	40	51	25	33.7	40	51
F - ASME	[mm]	9.4	15.75	9.4	15.75	22.1	-	34.8	47.5	22.1	-	34.8	47.5
Weight - ISO	[kg]	0.9	1.1	1.3	1.5	1.8	2.4	2.8	3.6	2.4	2.8	3.2	4.0
Weight - ASME	[kg]	0.9	1.1	1.3	1.5	1.8	-	2.8	3.6	2.4	-	3.2	4.0



The products listed below comply with the requirements of the European Pressure Equipment Directive 2014/68/UE and carry the CE mark when required. The products fall within the following Pressure Equipment Directive categories:

Valve Type	Bodies	Group 1 gases	Group 1 liquids and Group 2 other fluids
PC - RPC - BPC PP - RPP - BPP	DN15 to DN50 (PN10)	art. 4.3	art. 4.3

⚠ WARNING!

According to the European Pressure Equipment Directive 2014/68/UE, liquids whose saturated vapour pressure at the maximum allowable temperature is more than 0,5 barg shall be considered as gases.

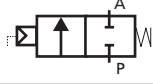
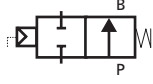
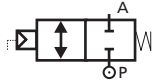
Notes

1. Steam max. working pressure 10 bar (9 barg)
2. Please contact M&M sales Department for other pilot media
3. Minimum pilot pressure at the max. working pressure: for lower working pressures please refer to the comparative charts (for different part numbers: e.g. PP2055TW00 please refer to the equivalent part number PG2055TW00 for threaded connection)

2/2 Way Piston Actuated Valve Clamp – Stainless Steel

VALVE	Body Connection	DN	Flow Rate Kvs	Working Pressure ¹		Flow Direction	Pilot Pressure ³		Actuator Ø	Function
				Min.	Max.		Min.	Max.		
Code	—	[mm]	[l/min]	[barg]	[barg]	—	[barg]	[barg]	[mm]	—
PC205CTW00	clamp to ISO 2852	15	65	0	10	1 → 2	3.8	10	45	NC
PC206CTX00		20	120	0	10	1 → 2	5.8	10		
PC205STW00		15	85	0	10	1 → 2	3.7	10	63	
PC206STX00		20	160	0	10	1 → 2	4.4	10		
PC207STY00		25	260	0	10	1 → 2	5.9	10		
PC208STZ00		32	420	0	10	1 → 2	9	10		
PC209STK00		40	700	0	10	1 → 2	9	10	90	
PC210STJ00		50	810	0	10	1 → 2	8	10		
PC207LTY00		25	260	0	10	1 → 2	2	8		
PC208LTZ00		32	420	0	10	1 → 2	3.5	8		
PC209LTK00		40	700	0	10	1 → 2	4	8		
PC210LTJ00		50	810	0	10	1 → 2	6.5	8		
RPC205CTW00	clamp to ISO 2852	15	65	0	10	2 → 1	4	8	45	NO
RPC206CTX00		20	120	0	10	2 → 1	6.2	8		
RPC205STW00		15	85	0	10	2 → 1	2.5	8	63	
RPC206STX00		20	160	0	10	2 → 1	4.3	8		
RPC207STY00		25	260	0	10	2 → 1	5.5	8		
RPC208STZ00		32	420	0	10	2 → 1	6.5	8		
RPC209STK00		40	700	0	10	2 → 1	8	8	90	
RPC210STJ00		50	810	0	8	2 → 1	8	8		
RPC207LTY00		25	260	0	10	2 → 1	2	5		
RPC208LTZ00		32	420	0	10	2 → 1	4	5		
RPC209LTK00		40	700	0	10	2 → 1	5	5		
RPC210LTJ00		50	810	0	10	2 → 1	5	5		
BPC205CTW00	clamp to ISO 2852	15	65	0	10/10	1 → 2/2 → 1	6.2/5	10	45	NC bidirectional
BPC206CTX00		20	120	0	10/7	1 → 2/2 → 1	8.7/5	10		
BPC205STW00		15	85	0	10/10	1 → 2/2 → 1	5.5/3.8	10	63	
BPC206STX00		20	160	0	10/10	1 → 2/2 → 1	6/3.8	10		
BPC207STY00		25	260	0	10/10	1 → 2/2 → 1	6.5/3.8	10		
BPC208STZ00		32	420	0	10/6	1 → 2/2 → 1	6.8/3.8	10		
BPC209STK00		40	700	0	10/4	1 → 2/2 → 1	9/3.8	10	90	
BPC210STJ00		50	810	0	8/2.5	1 → 2/2 → 1	9/3.8	10		
BPC207LTY00		25	260	0	10/10	1 → 2/2 → 1	4/3.3	8		
BPC208LTZ00		32	420	0	10/10	1 → 2/2 → 1	5/3.3	8		
BPC209LTK00		40	700	0	10/8	1 → 2/2 → 1	6/3.3	8		
BPC210LTJ00		50	810	0	10/6	1 → 2/2 → 1	8/3.3	8		
PP205CTW00	clamp to ASME BPE	15	50	0	10	1 → 2	3.8	10	45	NC
PP206CTX00		20	120	0	10	1 → 2	5.8	10		
PP205STW00		15	50	0	10	1 → 2	3.7	10	63	
PP206STX00		20	135	0	10	1 → 2	4.4	10		
PP207STY00		25	250	0	10	1 → 2	5	10		
PP209STK00		40	640	0	10	1 → 2	9	10		
PP210STJ00		50	730	0	10	1 → 2	8	10	90	
PP207LTY00		25	250	0	10	1 → 2	2	8		
PP209LTK00		40	640	0	10	1 → 2	4	8		
PP210LTJ00		50	730	0	10	1 → 2	6.5	8		
RPP205CTW00	clamp to ASME BPE	15	50	0	10	2 → 1	4	8	45	NO
RPP206CTX00		20	120	0	10	2 → 1	6.2	8		
RPP205STW00		15	50	0	10	2 → 1	2.5	8	63	
RPP206STX00		20	135	0	10	2 → 1	4.3	8		
RPP207STY00		25	250	0	10	2 → 1	5.5	8		
RPP209STK00		40	640	0	10	2 → 1	8	8		
RPP210STJ00		50	730	0	8	2 → 1	8	8	90	
RPP207LTY00		25	250	0	10	2 → 1	2	5		
RPP209LTK00		40	640	0	10	2 → 1	5	5		
RPP210LTJ00		50	730	0	10	2 → 1	5	5		
BPP205CTW00	clamp to ASME BPE	15	50	0	10/10	1 → 2/2 → 1	6.2/5	10	45	NC bidirectional
BPP206CTX00		20	120	0	10/7	1 → 2/2 → 1	8.7/5	10		
BPP205STW00		15	50	0	10/10	1 → 2/2 → 1	5.5/3.8	10	63	
BPP206STX00		20	135	0	10/10	1 → 2/2 → 1	6/3.8	10		
BPP207STY00		25	250	0	10/10	1 → 2/2 → 1	6.5/3.8	10		
BPP209STK00		40	640	0	10/4	1 → 2/2 → 1	9/3.8	10		
BPP210STJ00		50	730	0	8/2.5	1 → 2/2 → 1	9/3.8	10	90	
BPP207LTY00		25	250	0	10/10	1 → 2/2 → 1	4/3.3	8		
BPP209LTK00		40	640	0	10/8	1 → 2/2 → 1	6/3.3	8		
BPP210LTJ00		50	730	0	10/6	1 → 2/2 → 1	8/3.3	8		

2/2 Way Piston Actuated Valve G 1/2" to 2", High Temperature Version – Stainless Steel

Specifications	
Type: PG NC flow over seat 1 → 2	
Type: RPG NO flow under seat 2 → 1	
Type: BPG NC bi-directional flow over/under seat 1 → 2 / 2 → 1	
Media	Water, oil, air, aggressive media, steam ¹
Media Temperature	-10 to +200 °C
Ambient Temperature	-10 to +60 °C
Pilot Media ²	Instrument air, inert gases
Body Material	Cast AISI 316L (CF3M), see page 7
Bonnet Material	Cast AISI 316L (CF3M), see page 7
Actuator Body Material	Polyamide PA6 (reinforced fiberglass 30%)
Seal Material	PTFE
Position Indicator	As standard

Features and Benefits

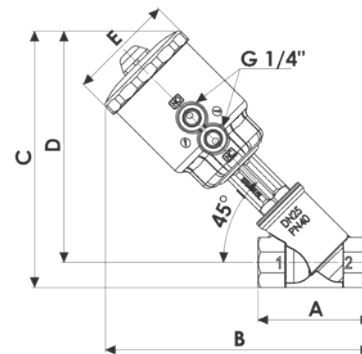
- Waterhammer-free design for BPG - DPG (with flow direction 2 → 1)
- Actuator housing rotation 360°



Options Available
Stroke regulator assembled ex-factory, see page 33 (e.g. code RPG210STJRH)
Travel switch assembled ex-factory, see page 33 (e.g. code PG208STZJH)
NPT connection (e.g. code BPN207LTY0H)
Butt weld connection (e.g. code BPW209LTK0H)
Flanged connection (e.g. code PD205STW0H)

Accessories
Position module, travel switch kit, pilot solenoid valves see pages 34/35/36

Dimensions & Weights		DN15	DN20	DN25	DN32	DN40	DN50
Actuator	[mm]	Ø 63			Ø 90		
A	[mm]	65	75	90	110	120	150
B	[mm]	192	198	212	234	239	257
C	[mm]	184	192	205	227	235	250
D	[mm]	171	176	185	202	207	216
E	[mm]	85	85	85	112	112	112
Weight	[kg]	1.2	1.3	1.5	2.4	2.6	3.3



The products listed below comply with the requirements of the European Pressure Equipment Directive 2014/68/UE and carry the CE mark when required. The products fall within the following Pressure Equipment Directive categories:

Valve Type	Bodies	Group 1 gases	Group 1 liquids and Group 2 other fluids
PG - RPG - BPG	DN15 to DN25 (PN40)	art. 4.3	art. 4.3
	DN32 to DN40 (PN25)	Category I	art. 4.3
	DN50 (PN16)	Category I	art. 4.3

⚠ WARNING!

According to the European Pressure Equipment Directive 2014/68/UE, liquids whose saturated vapour pressure at the maximum allowable temperature is more than 0,5 barg shall be considered as gases.

2/2 Way Piston Actuated Valve G 1/2" to 2", High Temperature Version – Stainless Steel

Valve Code	Body Connection [ISO 228G]	DN [mm]	Flow Rate Kvs [l/min]	Working Pressure ¹		Flow Direction	Pilot Pressure ³		Actuator Ø [mm]	Function
				Min. [barg]	Max. [barg]		Min. [barg]	Max. [barg]		
PG205STW0H	1/2"	15	87	0	20	1 → 2	3.7	10	63	NC
PG206STX0H	3/4"	20	164	0	20	1 → 2	4.4	10		
PG207STY0H	1"	25	260	0	20	1 → 2	5	10		
PG208LTZ0H	1 1/4"	32	410	0	16	1 → 2	3.5	8	90	
PG209LTK0H	1 1/2"	40	700	0	16	1 → 2	4	8		
PG210LTJ0H	2"	50	950	0	15	1 → 2	6.5	8		
RPG205STW0H	1/2"	15	87	0	16	2 → 1	2.5	8	63	NO
RPG206STX0H	3/4"	20	164	0	16	2 → 1	4.3	8		
RPG207STY0H	1"	25	260	0	16	2 → 1	5.5	8		
RPG208LTZ0H	1 1/4"	32	410	0	16	2 → 1	4	5	90	
RPG209LTK0H	1 1/2"	40	700	0	16	2 → 1	5	5		
RPG210LTJ0H	2"	50	950	0	10	2 → 1	5	5		
BPG205STW0H	1/2"	15	87	0	16	1 → 2 / 2 → 1	5.5 / 3.8	10	63	NC bidirectional
BPG206STX0H	3/4"	20	164	0	16	1 → 2 / 2 → 1	6 / 3.8	10		
BPG207STY0H	1"	25	260	0	16 / 11	1 → 2 / 2 → 1	6.5 / 3.8	10		
BPG208LTZ0H	1 1/4"	32	410	0	16 / 12	1 → 2 / 2 → 1	5 / 3.3	8	90	
BPG209LTK0H	1 1/2"	40	700	0	16 / 8	1 → 2 / 2 → 1	6 / 3.3	8		
BPG210LTJ0H	2"	50	950	0	14 / 6	1 → 2 / 2 → 1	8 / 3.3	8		

Notes

1. Steam max. working pressure 14,5 barg
2. Please contact M&M sales Department for other pilot media
3. Minimum pilot pressure at the max. working pressure: for lower working pressures please refer to the comparative charts

2/2 Way Piston Actuated Valve G 3/4" to 2 3/8", Threaded Spigots – Stainless Steel

Specifications	
Type: PR NC flow over seat 1 → 2	
Type: RPR NO flow under seat 2 → 1	
Type: BPR NC bi-directional flow over/under seat 1 → 2 / 2 → 1	
Media	Water, oil, air, aggressive media, steam ¹
Media Temperature	-10 to +180 °C
Ambient Temperature	-10 to +60 °C
Pilot Media ²	Instrument air, inert gases
Body Material	Cast AISI 316L (CF3M), see page 7
Bonnet Material	Cast AISI 316L (CF3M), see page 7
Actuator Body Material	Polyamide PA6 (reinforced fiberglass 30%)
Seal Material	PTFE
Position Indicator	As standard

Features and Benefits

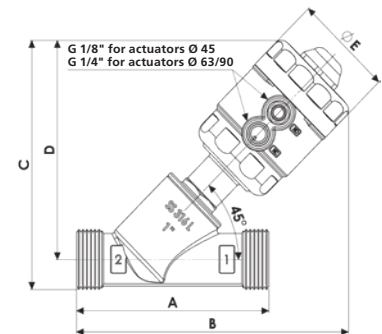
- Waterhammer-free design for BPR (with flow direction 2 → 1)
- Actuator housing rotation 360°
- Design suitable for vacuum applications up to 10⁻² mbar



Options Available
Stroke regulator assembled ex-factory, see page 33 (e.g. code BPR211STKR0)
Travel switch assembled ex-factory, see page 33 (e.g. code BPR206STW[0])
High temperature version, see pages 24/25 (e.g. code RPR208STY0H)

Accessories
Position module, travel switch kit, pilot solenoid valves see pages 34/35/36

Dimensions & Weights	DN15	DN20	DN15		DN20		DN25		DN32		DN40		DN50		
			Ø 45	Ø 63	Ø 63	Ø 90	Ø 90	Ø 90	Ø 90	Ø 90	Ø 90	Ø 90	Ø 90		
Actuator	[mm]	Ø 45	Ø 63										Ø 90		
A	[mm]	90	110	90	110	118	130	140	175	118	130	140	175		
B	[mm]	148	156	196	206	217	226	224	246	228	237	235	257		
C	[mm]	134	137	181	187	204	212	216	229	215	222	227	240		
D	[mm]	121	121	168	171	183	188	189	196	194	199	200	207		
E	[mm]	57	57	85	85	85	85	85	85	112	112	112	112		
Weight	[kg]	0.9	1.0	1.3	1.4	1.65	2.0	2.2	3.1	2.15	2.5	2.7	3.5		



The products listed below comply with the requirements of the European Pressure Equipment Directive 2014/68/UE and carry the CE mark when required. The products fall within the following Pressure Equipment Directive categories:

Valve Type	Bodies	Group 1 gases	Group 1 liquids and Group 2 other fluids
PR - RPR - BPR	DN15 to DN25 (PN40)	art. 4.3	art. 4.3
	DN32 to DN40 (PN25)	Category I	art. 4.3
	DN50 (PN16)	Category I	art. 4.3

⚠ WARNING!

According to the European Pressure Equipment Directive 2014/68/UE, liquids whose saturated vapour pressure at the maximum allowable temperature is more than 0,5 barg shall be considered as gases.

2/2 Way Piston Actuated Valve G 3/4" to 2 3/8", Threaded Spigots – Stainless Steel

Valve	Body Connection	DN	Flow Rate Kvs	Working Pressure ¹		Flow Direction	Pilot Pressure ³		Actuator Ø	Function
				Min.	Max.		Min.	Max.		
Code	[ISO 228G]	[mm]	[l/min]	[barg]	[barg]	—	[barg]	[barg]	[mm]	—
PR206CTW00	3/4"	15	75	0	16	1 → 2	3.8	10	45	NC
PR207CTX00	1"	20	133	0	16	1 → 2	5.8	10		
PR206STW00	3/4"	15	87	0	20	1 → 2	3.7	10	63	
PR207STX00	1"	20	164	0	20	1 → 2	4.4	10		
PR208STY00	1 1/4"	25	260	0	20	1 → 2	5	10		
PR209STZ00	1 1/2"	32	410	0	16	1 → 2	5.9	10		
PR211STK00	1 3/4"	40	700	0	16	1 → 2	9	10		
PR212STJ00	2 3/8" ⁴	50	950	0	11	1 → 2	8	10		
PR208LTY00	1 1/4"	25	260	0	20	1 → 2	2	8	90	
PR209LTZ00	1 1/2"	32	410	0	16	1 → 2	3.5	8		
PR211LTK00	1 3/4"	40	700	0	16	1 → 2	4	8		
PR212LTJ00	2 3/8" ⁴	50	950	0	15	1 → 2	6.5	8		
RPR206CTW00	3/4"	15	75	0	16	2 → 1	4	8	45	NO
RPR207CTX00	1"	20	133	0	16	2 → 1	6.2	8		
RPR206STW00	3/4"	15	87	0	16	2 → 1	2.5	8	63	
RPR207STX00	1"	20	164	0	16	2 → 1	4.3	8		
RPR208STY00	1 1/4"	25	260	0	16	2 → 1	5.5	8		
RPR209STZ00	1 1/2"	32	410	0	16	2 → 1	6.5	8		
RPR211STK00	1 3/4"	40	700	0	12	2 → 1	8	8		
RPR212STJ00	2 3/8" ⁴	50	950	0	8	2 → 1	8	8		
RPR208LTY00	1 1/4"	25	260	0	16	2 → 1	2	5	90	
RPR209LTZ00	1 1/2"	32	410	0	16	2 → 1	4	5		
RPR211LTK00	1 3/4"	40	700	0	16	2 → 1	5	5		
RPR212LTJ00	2 3/8" ⁴	50	950	0	10	2 → 1	5	5		
BPR206CTW00	3/4"	15	75	0	16 / 16	1 → 2 / 2 → 1	6.2 / 5	10	45	NC bidirectional
BPR207CTX00	1"	20	133	0	16 / 7	1 → 2 / 2 → 1	8.7 / 5	10		
BPR206STW00	3/4"	15	87	0	16	1 → 2 / 2 → 1	5.5 / 3.8	10	63	
BPR207STX00	1"	20	164	0	16	1 → 2 / 2 → 1	6 / 3.8	10		
BPR208STY00	1 1/4"	25	260	0	16 / 11	1 → 2 / 2 → 1	6.5 / 3.8	10		
BPR209STZ00	1 1/2"	32	410	0	16 / 6	1 → 2 / 2 → 1	6.8 / 3.8	10		
BPR211STK00	1 3/4"	40	700	0	12 / 4	1 → 2 / 2 → 1	9 / 3.8	10		
BPR212STJ00	2 3/8" ⁴	50	950	0	8 / 2.5	1 → 2 / 2 → 1	9 / 3.8	10		
BPR208LTY00	1 1/4"	25	260	0	16 / 14	1 → 2 / 2 → 1	4 / 3.3	8	90	
BPR209LTZ00	1 1/2"	32	410	0	16 / 12	1 → 2 / 2 → 1	5 / 3.3	8		
BPR211LTK00	1 3/4"	40	700	0	16 / 8	1 → 2 / 2 → 1	6 / 3.3	8		
BPR212LTJ00	2 3/8" ⁴	50	950	0	14 / 6	1 → 2 / 2 → 1	8 / 3.3	8		

Notes

1. Steam max. working pressure 10 bar (9 barg)
2. Please contact M&M sales Department for other pilot media
3. Minimum pilot pressure at the max. working pressure: for lower working pressures please refer to the comparative charts (for different part numbers: e.g. BPR207STX00 please refer to the equivalent part number BPG207STY00 for threaded connection)
4. According to ISO 338

Piston Actuated Valve Series M and G EXD II 2 GD c TX CLASS

Specifications	
Type: PG NC flow over seat 1 → 2	
Type: RPG NO flow under seat 2 → 1	
Type: BPG NC bi-directional flow over/under seat 1 → 2 / 2 → 1	
Protection Class	II 2 GD c TX
Media	Water, oil, air, aggressive media, steam ¹
Media Temperature	-10 to +200 °C
Ambient Temperature	-10 to +80 °C
Pilot Media ²	Instrument air, inert gases
Body Material	Cast AISI 316L (CF3M), see page 7
Bonnet Material	Cast AISI 316L (CF3M), see page 7
Actuator Body Material	ASTM A 351 CF8 (AISI 304)
Actuator Cover Material	ASTM A 351 CF8 (AISI 304)
Actuator Housing Material	ASTM A 351 CF8 (AISI 304)
Piston Material	Aluminium
Seal Material	PTFE
Position Indicator	As standard

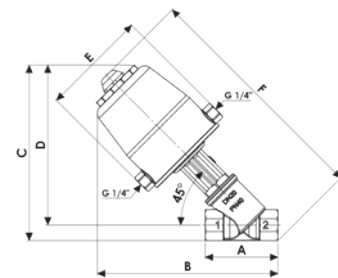
Features and Benefits

- Waterhammer-free design for BPG (with flow direction 2→1)
- Actuator housing rotation 360°
- High resistance to external agents, shocks



Options Available
Atex inductive switch assembled ex-factory (e.g. code PG207MTYX0), with ambient temperature -10 °C to +60 °C

Dimensions & Weights		DN15	DN20	DN25	DN32	DN40	DN50	DN25	DN32	DN40	DN50
Actuator	[mm]	Ø 63						Ø 90			
A	[mm]	65	75	90	110	120	150	90	110	120	150
B	[mm]	178	184	200	211	216	234	208	221	226	244
C	[mm]	171	178	200	204	212	227	201	213	221	236
D	[mm]	157	162	172	180	184	193	181	189	194	202
E	[mm]	108	108	108	108	108	108	135	135	135	135
F	[mm]	228	239	258	275	284	307	260	278	286	310
Weight	[kg]	2.3	2.4	2.6	3.1	3.4	4.1	3.6	4.1	4.3	5.1



The pilot solenoid valves ports have a G 1/4" thread and are marked with NO/NC (Normally Open/Normally Closed)

The products listed below comply with the requirements of the European Pressure Equipment Directive 2014/68/UE and carry the CE mark when required. The products fall within the following Pressure Equipment Directive categories:

Valve Type	Bodies	Group 1 gases	Group 1 liquids and Group 2 other fluids
PG - RPG - BPG	DN15 to DN25 (PN40)	art. 4.3	art. 4.3
	DN32 to DN40 (PN25)	Category I	art. 4.3
	DN50 (PN16)	Category I	art. 4.3

⚠ WARNING!

According to the European Pressure Equipment Directive 2014/68/UE, liquids whose saturated vapour pressure at the maximum allowable temperature is more than 0,5 barg shall be considered as gases.

Piston Actuated Valve Series M and G EXD II 2 GD c TX CLASS

Valve	Body Connection	DN	Flow Rate Kvs	Working Pressure ¹		Flow Direction	Pilot Pressure ³		Actuator Ø	Function	
				Min.	Max.		Min.	Max.			
Code	[ISO 228G]	[mm]	[l/min]	[barg]	[barg]	—	[barg]	[barg]	[mm]	—	
PG205MTW00	1/2"	15	87	0	20	1 → 2	3.7	10	63	NC	
PG206MTX00	3/4"	20	164	0	20	1 → 2	4.4	10			
PG207MTY00	1"	25	260	0	20	1 → 2	5	10			
PG208MTZ00	1 1/4"	32	410	0	16	1 → 2	5.9	10			
PG209MTK00	1 1/2"	40	700	0	16	1 → 2	9	10			
PG210MTJ00	2"	50	950	0	11	1 → 2	8	10			
PG207GTY00	1"	25	260	0	20	1 → 2	2	8	90		
PG208GTZ00	1 1/4"	32	410	0	16	1 → 2	3.5	8			
PG209GTK00	1 1/2"	40	700	0	16	1 → 2	4	8			
PG210GTJ00	2"	50	950	0	15	1 → 2	6.5	8			
RPG205MTW00	1/2"	15	87	0	16	2 → 1	2.5	10			63
RPG206MTX00	3/4"	20	164	0	16	2 → 1	4.3	10			
RPG207MTY00	1"	25	260	0	16	2 → 1	5.5	10			
RPG208MTZ00	1 1/4"	32	410	0	16	2 → 1	6.5	10			
RPG209MTK00	1 1/2"	40	700	0	16	2 → 1	9	10			
RPG210MTJ00	2"	50	950	0	12	2 → 1	9.4	10			
RPG207GTY00	1"	25	260	0	16	2 → 1	2	8	90		
RPG208GTZ00	1 1/4"	32	410	0	16	2 → 1	4	8			
RPG209GTK00	1 1/2"	40	700	0	16	2 → 1	5	8			
RPG210GTJ00	2"	50	950	0	16	2 → 1	7	8			
BPG205MTW00	1/2"	15	87	0	16	1 → 2 / 2 → 1	5.5 / 3.8	10		63	NC bidirectional
BPG206MTX00	3/4"	20	164	0	16	1 → 2 / 2 → 1	6 / 3.8	10			
BPG207MTY00	1"	25	260	0	16 / 11	1 → 2 / 2 → 1	6.5 / 3.8	10			
BPG208MTZ00	1 1/4"	32	410	0	16 / 6	1 → 2 / 2 → 1	6.8 / 3.8	10			
BPG209MTK00	1 1/2"	40	700	0	12 / 4	1 → 2 / 2 → 1	9 / 3.8	10			
BPG210MTJ00	2"	50	950	0	8 / 2.5	1 → 2 / 2 → 1	9 / 3.8	10			
BPG207GTY00	1"	25	260	0	16 / 14	1 → 2 / 2 → 1	4 / 3.3	8	90		
BPG208GTZ00	1 1/4"	32	410	0	16 / 12	1 → 2 / 2 → 1	5 / 3.3	8			
BPG209GTK00	1 1/2"	40	700	0	16 / 8	1 → 2 / 2 → 1	6 / 3.3	8			
BPG210GTJ00	2"	50	950	0	14 / 6	1 → 2 / 2 → 1	8 / 3.3	8			

Notes

1. Steam max. working pressure 10 bar (9 barg)
2. Please contact M&M sales Department for other pilot media
3. Minimum pilot pressure at the max. working pressure: for lower working pressures please refer to the comparative charts

Specifications of Inductive Switch (must be ordered ex-factory, not available as retrofitting kit)

Type of sensor:	in accordance with Namur standards EN 60947-5-6
Switching distance (Sn):	4 mm
Continuous voltage (residual ripple ≤10%):	8,2V
Current absorption at 8,2V in presence of metal:	≤ 1mA
Current absorption at 8,2V in absence of metal:	≥ 3mA
Switching frequency:	2000 Hz
Repeatability (% of Sn):	≤ 3
Housing material:	brass with electroless nickel plating treatment
Cable:	PVC 2x0,25 mm ²
Cable length:	3 m
Safety rating:	UI=17V - li=17mA - Pi=73mW - Ci=0,25uF - Li=175uH



Control Piston Actuated Valve with Integrated Positioner

DN15 to DN50 – Stainless Steel

Valve Specifications	
Type: ZP flow always under seat 2 → 1	NC (Direct) / NO (Reverse)
Media	Water, oil, air, aggressive media, steam ¹
Media Temperature	-10 to +180 °C
Ambient Temperature	-10 to +60 °C
Pilot Media ²	Instrument air, inert gases (filtered with mesh 5 µ)
Body Material	Cast AISI 316L (CF3M), see Piston Actuated Valves Catalogue
Tube Material	AISI 316L (CF3M)
Process Connection	All connection types available for ON/OFF valve range in Stainless Steel
Bonnet Material	Cast AISI 316L (CF3M), see Piston Actuated Valves Catalogue
Actuator Body Material	Polyamide PA6 (reinforced fiberglass 30%)
Main Seal Material	PTFE
Flow Characteristic	Linear or equal-percentage
Positioner Specifications	
Power Supply	24 VDC ± 10%
Input Signal	4–20 mA, 0 to 5 / 10 V
Power Consumption	< 4W
Output	4–20 mA
Output Characteristics	Linear, EQ%, User Set (16 points)
Operating Temperature	-10 to 60 °C
Supply Pressure	Max 7 bar
Air Consumption	0 LPM
Filtering size	5 micron
Air Connection	G1/8" (Ø 6 mm tube)
Electrical Connection	Conduit M16 x 1.5 (with screw terminals)
Ingress Protection	IP67
Body Material	PPS
Cover Material	PC

Features and Benefits

Piston Actuated Valve

- Accuracy of control thanks to specifically trimmed plug profiles
- Universal design suitable for vacuum applications up to 10⁻² mbar
- Water-hammer free design
- Extended cycle life thanks to self-registering gland and chevron packing
- Optimized control characteristic with high flow rate and low pressure drop

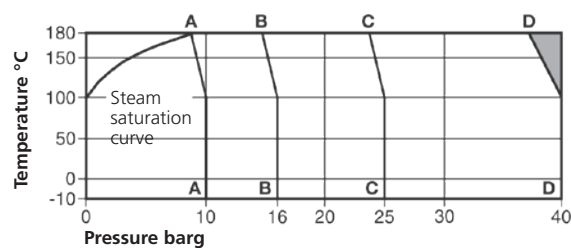


Smart Positioner Design Features (solenoid technology)

- Fail Freeze and Fail Safe function
- LCD display
- Feedback signal. 4-20 mA output option
- Auto calibration
- Low air consumption level
- Front panel pushbuttons for configuration

Valve Options	Code Examples
Main Seal material in Peek ¹	ZP*205SPW E K
Body and Shaped plug with hardening treatment ¹	ZP*205SPW E K
Positioner Options	
Fail Option: Safe (S) or Freeze (F)	SNG10S or SNG10F
Feedback output option: 4-20 mA (1)	SNG11S or SNG11F

¹ Seal in peek and hardened nickel plated body usually match together to improve valve life in severe applications



A – A PN10
B – B PN16 - ANSI 150
C – C PN25
D – D PN40

The product must not be used in this region or beyond the body design conditions (PN) quoted in the selection chart as damage to the internals will occur!

DN	Flow Rate ⁴ Equi% 1:25	Flow Rate ⁴ linear 1:25	Working Pressure ¹ Max.	Flow Direction	Pilot Pressure Min.	Pilot Pressure Max.	Actuator Ø	PN ³	Valve Code (* is the connection ref. to be selected in the coding table)		Positioner Code
[mm]	Kvs [m3/h]	Kvs [m3/h]	[barg]	[2 → 1]	[barg]	[barg]	[mm]	—	EQ%	Linear	Fail Safe, no feedback
15	4.5	4.9	16	Only under seat	4.5	7	63	40	ZP*205STWEO	ZP*205STWL0	SNG10S
20	8.7	8.7	16					40	ZP*206STXEO	ZP*206STXL0	
25	12.7	14.4	14					40	ZP*207LTYES	ZP*207LTYL0	
32	20.4	22.8	12	Only under seat	4.5	7	90	25	ZP*208LTYES	ZP*208LTYL0	
40	29.7	34.2	8					25	ZP*209LTKEO	ZP*209LTKL0	
50	36.3	39	6					16	ZP*210LTYES	ZP*210LTYL0	

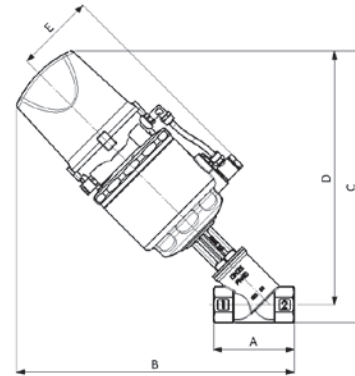
Notes:

1. Steam max. working pressure 10 bar (9 barg)
2. Please contact M&M sales department for other pilot media
3. PN 10 for all sizes with Clamp connection
4. Flow values shown in the selection table are subject to a tolerance of ±15%

Control Piston Actuated Valve with Integrated Positioner

DN15 to DN50 – Stainless Steel

GAS - NPT - WELDED ENDS	Dimensions & Weights		DN15	DN20	DN25	DN32	DN40	DN50
	Actuator	[mm]	Ø 63		Ø 90			
	A	[mm]	64	75	90	110	120	150
B	[mm]	287	293	309	322	327	345	
C	[mm]	280	287	302	315	323	338	
D	[mm]	266	271	282	290	295	304	
E	[mm]	69.8	69.8	82.8	82.8	82.8	82.8	
Weight	[kg]	1.9	2	2.8	3.2	3.4	4.1	



FLANGED EN1092-1	Dimensions & Weights		DN15	DN20	DN25	DN32	DN40	DN50
	Actuator	[mm]	Ø 63		Ø 90			
	A	[mm]	130	150	160	180	200	230
B	[mm]	325	332	345	360	365	386	
C	[mm]	347	356	368	392	403	418	
D	[mm]	299	303	315	322	327	335	
E	[mm]	69.8	69.8	82.8	82.8	82.8	82.8	
Weight	[kg]	3.3	3.7	5.2	6.8	7.7	9.9	

FLANGED ANSI B16.5	Dimensions & Weights		DN15	DN20	DN25	DN32	DN40	DN50
	Actuator	[mm]	Ø 63		Ø 90			
	A	[mm]	139.7	152.4	165.1	184.2	203.2	228.6
B	[mm]	323	328	346	358	365	386	
C	[mm]	344	352	369	381	391	411	
D	[mm]	299	303	315	322	327	335	
E	[mm]	69.8	69.8	82.8	82.8	82.8	82.8	
Weight	[kg]	3.3	3.7	5.2	6.8	7.7	9.9	

CLAMP ISO 2852	Dimensions & Weights		DN15	DN20	DN25	DN32	DN40	DN50
	Actuator	[mm]	Ø 63		Ø 90			
	A	[mm]	102	114	140	159	159	190
B	[mm]	306	313	334	347	347	365	
C	[mm]	283	288	307	315	327	338	
D	[mm]	266	271	282	290	295	304	
E	[mm]	69.8	69.8	82.8	82.8	82.8	82.8	
Weight	[kg]	2	2.2	3.2	3.6	4	4.8	

CLAMP ASME BPE	Dimensions & Weights		DN15	DN20	DN25	DN32	DN40	DN50
	Actuator	[mm]	Ø 63		Ø 90			
	A	[mm]	102	114	140	/	159	190
B	[mm]	306	313	334	/	347	385.3	
C	[mm]	280	287	307	/	323	331.5	
D	[mm]	266	271	282	/	295	304	
E	[mm]	69.8	69.8	82.8	/	82.8	82.8	
Weight	[kg]	2	2.2	3.2	/	4	4.8	

Regulatory

The products listed below comply with the requirements of the European Pressure Equipment Directive 2014/68/EU and carry the CE mark when required. The products fall within the following Pressure Equipment Directive categories:

Valve Type	Bodies	Group 1 gases	Group 1 liquids and Group 2 other fluids
ZPG - ZPR - ZPN - ZPC - ZPP - ZPA - ZPD -	DN15 to DN25 (PN40)	SEP (art. 4.3)	SEP (art. 4.3)
	DN32 to DN40 (PN25)	Category I	SEP (art. 4.3)
	DN50 (PN16)	Category I	SEP (art. 4.3)

⚠ WARNING!

According to the European Pressure Equipment Directive 2014/68/UE, liquids whose saturated vapour pressure at the maximum allowable temperature is more than 0,5 barg shall be considered as gases.

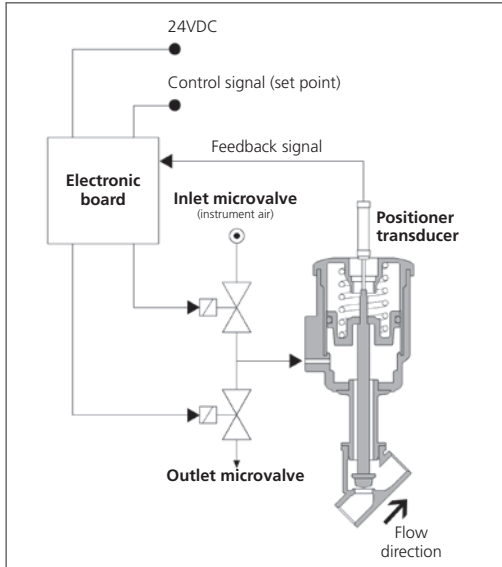
Control Piston Actuated Valve With Integrated Positioner

DN15 to DN50 – Stainless Steel

Operating Principles and Description

M&M control piston actuated valves are operated by a compact pneumatic integrated positioner working in a closed loop. Picture A shows the operating layout: the set-point signal (coming from the control panel of the plant) is compared with the internal signal (feed-back) of the position sensor. When the two values don't match, the electronic system inside the valve operates two microvalves (which open or close the pilot air feeding) to change the stroke until both signals match.

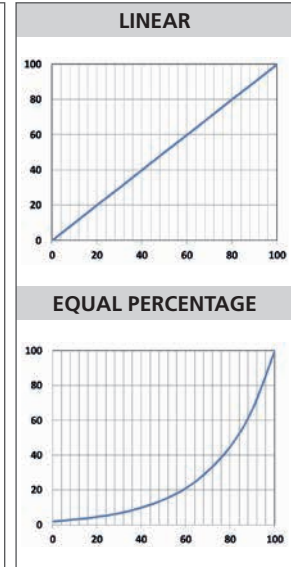
The proportionality between the stroke of the valve and the instantaneous flow is guaranteed by the special plug design: linear plug and equal percentage plug (Picture C) the graphs show an ideal curve, which cannot be reproduced exactly but varies according to the DN of the valve and the specific installation parameters. When fully closed the valve is leakage tight thanks to the soft seal, as in M&M standard on/off piston actuated valves (see Picture B).



Picture A



Picture B



Picture C

Coding chart

Valve type / function	Process connection*	Valve head (to match DN)	Main seal material	DN (mm)	Plug options	Special Features	Positioner
ZP	A Flange to ANSI B10.5	2055 For DN15	T PTFE	W DN15	E Equal %	O None	SNG10S No feedback, Fail Safe
	C Clamp to ISO 2852	206S For DN20	P PEEK	X DN20	L Linear	K Nickel plating hardening treatment	SNG10F No feedback, Fail Freeze
	D Flange to UNI EN 1092-1	207L For DN25		Y DN25			SNG11S Feedback 4-20mA, Fail Safe
	G Thread to ISO 228-1	208L For DN32		Z DN32			SNG11F Feedback 4-20mA, Fail Freeze
	N Thread to NPT	209L For DN40		K DN40			
	P Clamp ends to ASME BPE	210L For DN50		J DN50			
	R Spigots to ISO 228-1						
	W Butt weld ends to DIN1850-2						
ZP

Product coding example: ZPN205STWEK-SNG10S Control valve with NPT threaded connection, DN15, main seal in PTFE, equal% plug, fitted with smart linear positioner in fail safe configuration.

Travel Switch

Technical Specifications

The travel switch detects the open position of the valve relaying back an electrical signal. The signal is provided by a magnetic sensor with a non contact switch (free NC, NO switch)

Specifications	
Max. Switching Voltage	500 V
Max. Switching Current	0,5 A
Max. Switching Power	30 W/VA
Max. Switching Frequency	150 Hz
Contact Actuation Time	4,5 ms
Repeatability	± 0,3 mm
Temperature Limits	-25 to +100 °C
Protection Class	IP67
Housing Material	Brass with electroless nickel plating treatment
Plug For Cable	3x0,5 mm ² ; Ø 4-6 mm (DIN EN 60947/5/2)



Notes

The option must be expressly requested upon order
It is available for actuators sizes Ø63 & Ø90 only (e.g. code RPG205TWI0)
It is available only assembled ex-factory

Stroke Regulator

Features and Benefits

With the stroke regulator the flow be can manually adjusted from 0% to 100% integrated position indicator. In normally open valves it can also be used as manual override.

Notes

This option must be expressly requested upon order
It is available for actuators sizes Ø63 & Ø90 only (e.g. code CG205STWR0)
It is available only assembled ex-factory



Position Module for Piston Actuated Valve

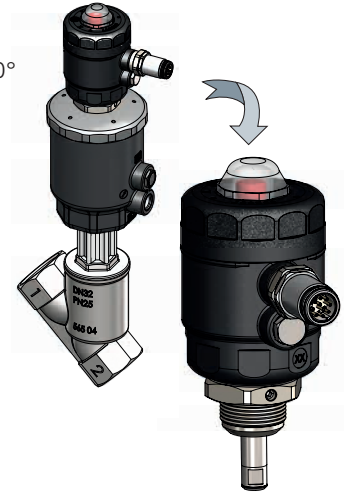
Specifications	
Electrical Position Feedback	Mechanical limit switches or inductive limit switches
Body/Cover Material	Polyamide PA6 (reinforced fiberglass 30%)
Connector Material	Copper-zinc alloy / aluminium alloy / cast zinc – nickel plating treatment
Electrical Connection	Connector M16 – 10 poles / wire Ø 5 - 9 mm
Ambient Temperature	-10 to +60 °C
Protection Class	IP65
Specifications: Mechanical Switches	
Number of Switches	2
Type of Switch	Change over contacts (NC and / or NO)
Contacts Material	Silver
Maximum Tension	Connector 230 VAC with dirt level 2 / 160 VAC with dirt level 3
Maximum Current	6 A with resistive load - 2 A with inductive load
Specifications: Inductive Switches	
Number of Switches	2
Output Version	Normally open contact (PNP)
Power Supply	12 to 24 VDC
Maximum Load Current	50 mA per output
Power Consumption	13 mA max. at 24 VDC without load

M&M position modules offer an electrical position feedback for reading the valve position of piston actuated valves open or closed.

The position detection is carried out through a mechanical or inductive switch that can be fitted to all M&M standard Piston Valves.

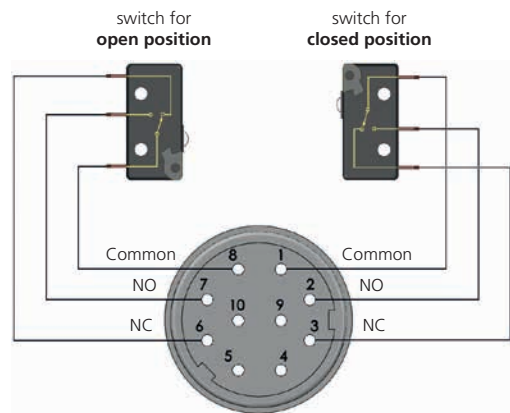
Features and Benefits

- Actuator housing rotation 360°



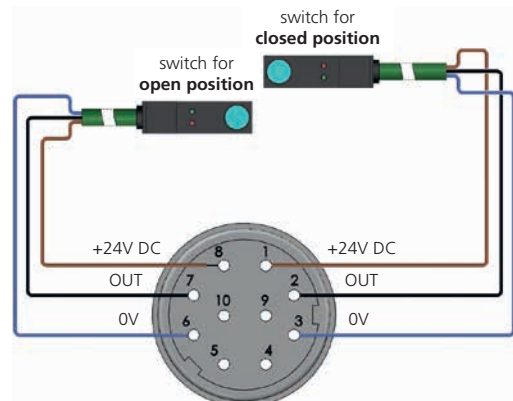
ELECTRICAL CONNECTION SCHEME FOR MECHANICAL SWITCHES

Connector frontal view:

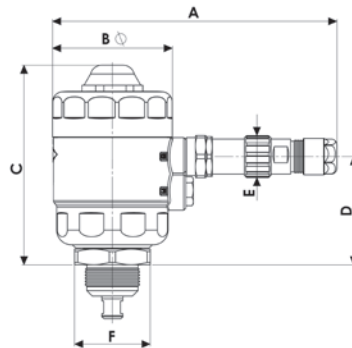


ELECTRICAL CONNECTION SCHEME FOR INDUCTIVE SWITCHES

Connector frontal view:



Dimensions & Weights		Position Module
Actuator	[mm]	45/63/90
A	[mm]	134
B	[mm]	57
C	[mm]	95
D	[mm]	51.5
E	[mm]	20
F	[mm]	Hex 36
Weight	[kg]	0.43



Position Module	Actuator Ø	Electrical Position Feedback
Code	[mm]	—
857 030-	63/90	Mechanical
857 040-	45	
857 031-	63/90	Inductive
857 041-	45	

Travel Switch Conversion Kit for Piston Actuated Valve

Features and Benefits

Kit suitable for all M&M International pneumatic valves.

It allows the installation of a position sensor on top of the actuator. The sensor can be magnetic or inductive and provides an electrical signal indicating the open position of the valve (this is a function different from the position module, which detects the actual valve position: open or closed).

The sensor is not included.

The kit is recommendable for magnetic or inductive sensors with threaded body having an external diameter size up to 12mm max.

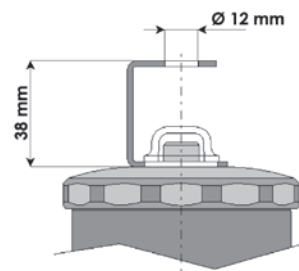
You can install a sensor having a larger diameter (up to 18 mm max.) in this case you shall re-drill the upper hole on the sensor support bracket.

The valve position is visible through the transparent sight dome.

- Simple to retrofit
- Suitable for magnetic or inductive commercial switches with M12 or M8 thread

Code **857 018 00-** includes: support bracket, transparent dome, red position indicator with built-in magnet (switch and plug not included, see below).

CONVERSION KIT code 857 018 00-:



Magnetic Switch for Conversion Kit

M&M offers 2 types (type **A** or type **B** see below) of standard magnetic switches to be purchased in addition to the conversion kit. Other types of switches can be outsourced directly by the customer, provided that they comply with M&M kit mounting specifications.

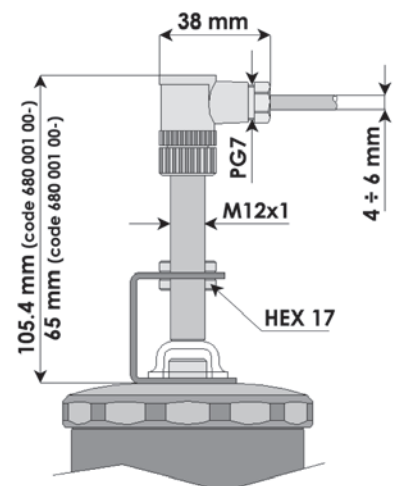
Notes: 2 conversion kits complete with sensors are available:

Code **857 019 00-** includes: support bracket, transparent dome, red position indicator, magnet, connector code 600 012 00- and sensor code 680 001 00-.

Code **857 020 00-** includes: support bracket, transparent dome, red position indicator, magnet, sensor with cable code 680 002 00-.

Technical Specifications		
Magnetic Switches	• Type A code 680 001 00-	• Type B code 680 002 00- ¹
Contact	Free NC, NO switch	Free NC, NO switch
Repeatability	± 0,3 mm	± 0,3 mm
Temperature Limits	- 25 to + 100 °C	- 25 to + 100 °C
Protection Class	IP 67 ²	IP 67
Max. Switching Voltage	500 V	150 V
Max. Switching Current	0,5 A	1 A
Max. Switching Power	30 WVA	20 WVA
Contact Actuation Time	4,5 ms	2 ms
Connection	Plug to screw clamp connection DIN IEC 60947/5/2	With moulded cable (5 m)
Cable	3 x 0,25 mm ²	3 x 0,25 mm ²

1. Minimum batch may be required
2. If matched with a connector rated IP67 or higher



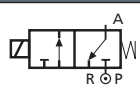
• **Type A**
CONNECTOR code 600 012 00-
+ SWITCH code 680 001 00-



• **Type B**
SWITCH AND CABLE (5m)
code 680 002 00-¹



3/2 Way Direct Acting Pilot Solenoid Valve with Manual Override

Specifications	
Type: B356/B326/D326 Normally Closed	
Media	Water, inert gases, air
Media Temperature	-10 to +60 °C
Ambient Temperature	-10 to +60 °C
Body Material	Brass (CW617N EN 12165) with electroless nickel plating treatment
Operator Material	Stainless steel
Seal Material	Foodgrade FKM
Protection Class	IP65 (with connector and gasket)

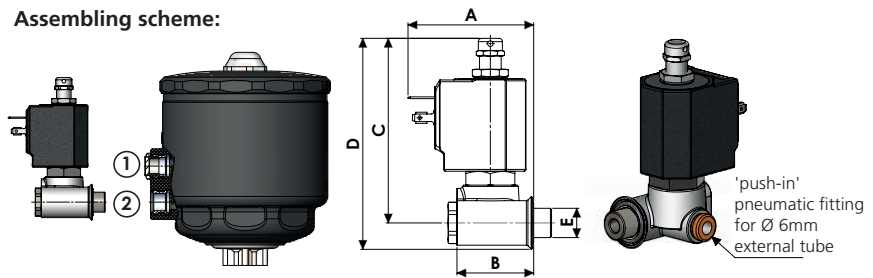
Features and Benefits

- Expressly designed to pilot M&M Piston Actuated Valves
- Valve rotation 360° around port



Dimensions & Weights	B356			B326		D326	
	Connection	'Push-in'					
A	[mm]	48	51	56.5			
B	[mm]	31	34	34			
C	[mm]	67	67	83			
D	[mm]	77	79	95			
E	[mm]	1/8" G	1/4" G	1/4" G			
Weight	[kg]	0.25	0.25	0.30			

Assembling scheme:



Screw the pilot valve bolt into the inlet port of the piston valve actuator using a maximum torque level of 5 Nm:

- into hole ① for **NORMALLY OPEN VALVES** (RPG/RCG)
- into hole ② for **NORMALLY CLOSED VALVES** (PG-BPG/CG-BCG)

Valve	DN	Flow rate Kvs	OPD			Coils	
			min.	max. AC	max. DC	Code	[Volts/Hz]
B356CVCMK	1.5	0.7	0	10	10	2250	24 VDC
						2200	24 V 50/60 Hz
						2400	110 V 50 Hz - 120 V 60 Hz
						2600	200 V 50 Hz - 220 V 60 Hz
						2700	230 V 50 Hz - 240 V 60 Hz

B356 - FKM seal, for actuator size Ø 45

Connection: to DIN 46244
Coil power: AC 10va (holding)
AC 16va (inrush)
DC 7w

OPTIONS

UL approved coils (e.g. code 225R)
DIN connector code 600 001 00-

Valve	DN	Flow rate Kvs	OPD			Coils	
			min.	max. AC	max. DC	Code	[Volts/Hz]
B326CVCMK	1.5	0.7	0	10	10	2250	24 VDC
						2200	24 V 50/60 Hz
						2400	110 V 50 Hz - 120 V 60 Hz
						2600	200 V 50 Hz - 220 V 60 Hz
						2700	230 V 50 Hz - 240 V 60 Hz

B326 - FKM seal, for actuator size Ø 63

Connection: to DIN 46244
Coil power: AC 10va (holding)
AC 16va (inrush)
DC 7w

OPTIONS

UL approved coils (e.g. code 240R)
DIN connector code 600 001 00-

Valve	DN	Flow rate Kvs	OPD			Coils	
			min.	max. AC	max. DC	Code	[Volts/Hz]
D326CVEMK	2.0	1.3	0	10	10	7250	24 VDC
						7200	24 V 50/60 Hz
						7400	110 V 50 Hz - 120 V 60 Hz
						7600	200 V 50 Hz - 220 V 60 Hz
						7700	230 V 50 Hz - 240 V 60 Hz

D326 - FKM seal, for actuator size Ø 90

Connection: to DIN EN 175301-803 form A (ex din 43650-a)
Coil power: AC 18va (holding)
AC 36va (inrush)
DC 14w

OPTIONS

UL approved coils (e.g. code 725R)
DIN connector code 600 011 00-

Seal Kit for Stainless Steel Valves Actuator Ø 63/90

Maintenance operations must be carried out by qualified personnel according to manufacturer's instructions. To replace seals, please refer to the instruction manual provided with the valve.

Normally Closed

SPARE PARTS KIT:
Lip seal, o-rings, main seal, body seal

Kit code	DN	Valve Type ¹	Actuator
856 111 00-	15	PG/RPG/BPG- PN/RPN/BPN- PW/RPW/BPW- PB/RPB/BPB- PD/RPD/BPD- PA/BPA/RPA- PC/RPC/BPC- PP/RPP/BPP- PR/RPR/BPR- High Temperature Version	Ø 63
856 122 00-	20		
856 133 00-	25		
856 144 00-	32		
856 155 00-	40		
856 166 00-	50		
856 611 00-	15		
856 622 00-	20		
856 633 00-	25		
856 644 00-	32		
856 655 00-	40	DPG/DPN-	Ø 90
856 666 00-	50		
856 313 00-	25		
856 314 00-	32		
856 315 00-	40		
856 316 00-	50		

Normally Open

STEM SEALS KIT

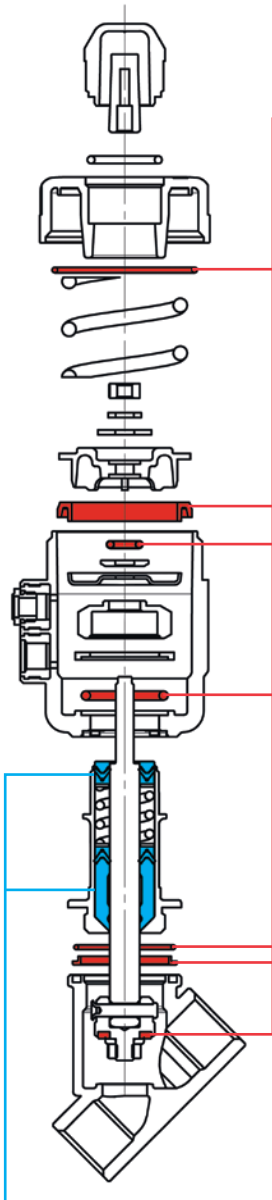
Kit Code	DN	Valve Type ¹	Actuator
856 802 00-	all	PG/RPG/BPG/DPG- PN/RPN/BPN/DPN- PW/RPW/BPW- PB/RPB/BPB- PD/RPD/BPD- PA/BPA/RPA- PC/RPC/BPC- PP/RPP/BPP- PR/RPR/BPR-	Ø 63/90
856 900 00-	15	High Temperature Version	Ø 63
856 901 00-	20		
856 902 00-	25		
856 903 00-	32	High Temperature Version	Ø 90
856 904 00-	40		
856 905 00-	50		

1. Included versions with optional: stroke regulator (e.g. code PW208STZR0) and travel switch version (e.g. code BPG209LTKI0)

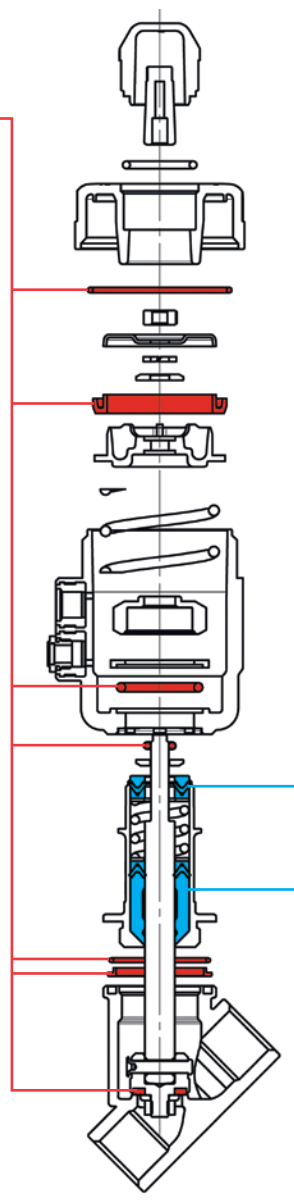
Seal Kit For Stainless Steel Valves Actuator Ø 45

Maintenance operations must be carried out by qualified personnel according to manufacturer's instructions. To replace seals, please refer to the instruction manual provided with the valve.

Normally Closed



Normally Open



SPARE PARTS KIT: Lip seal, o-rings, main seal, body seal			
Kit Code	DN	Valve Type	Actuator
856 011 00-	15	PG/RPG/BPG- PN/RPN/BPN- PW/RPW/BPW- PB/RPB/BPB- PC/RPC/BPC- PP/RPP/BPP- PR/RPR/BPR	Ø 45
856 012 00-	20		
856 013 00-	15	DPG/DPN-	
856 014 00-	20		

STEM SEALS KIT			
Kit code	DN	Valve Type	Actuator
856 801 00-	all	all	Ø 45

Seal Kit For Bronze Valves Actuator Ø 63/90

Maintenance operations must be carried out by qualified personnel according to manufacturer's instructions. To replace seals, please refer to the instruction manual provided with the valve.

Normally Closed

SPARE PARTS KIT:
Lip seal, o-rings, main seal, flat seal

Kit Code	DN	Valve Type ¹	Actuator
856 112 00-	15	CG/RCG/BCG- CN/RCN/BCN-	Ø 63
856 123 00-	20		
856 134 00-	25		
856 145 00-	32		
856 156 00-	40		
856 167 00-	50	DCG/DCN-	Ø 63
856 612 00-	15		
856 623 00-	20		
856 634 00-	25		
856 645 00-	32		
856 656 00-	40	CG/RCG/BCG- CN/RCN/BCN-	Ø 90
856 667 00-	50		
856 317 00-	25		
856 318 00-	32		
856 319 00-	40		
856 320 00-	50		

Normally Open

STEM SEALS KIT

Kit Code	DN	Valve Type ¹	Actuator
856 802 00-	all	CG/RCG/BCG-/DCG- CN/RCN/BCN/DCN-	Ø 63/90

1. Included versions with optional: stroke regulator (e.g. code CG206STXR0) and travel switch version (e.g. code BCG210LTJ0)

Seal Kit For Bronze Valves Actuator Ø 45

Maintenance operations must be carried out by qualified personnel according to manufacturer's instructions. To replace seals, please refer to the instruction manual provided with the valve.

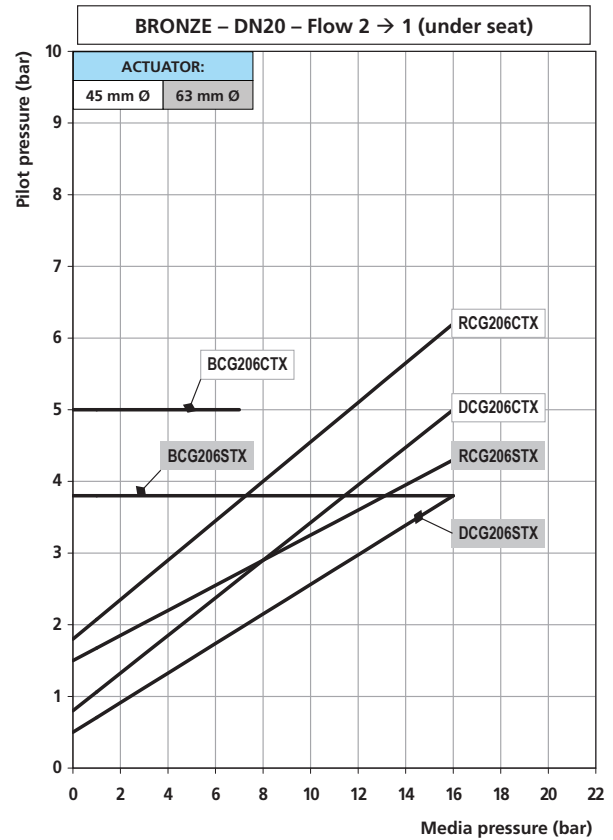
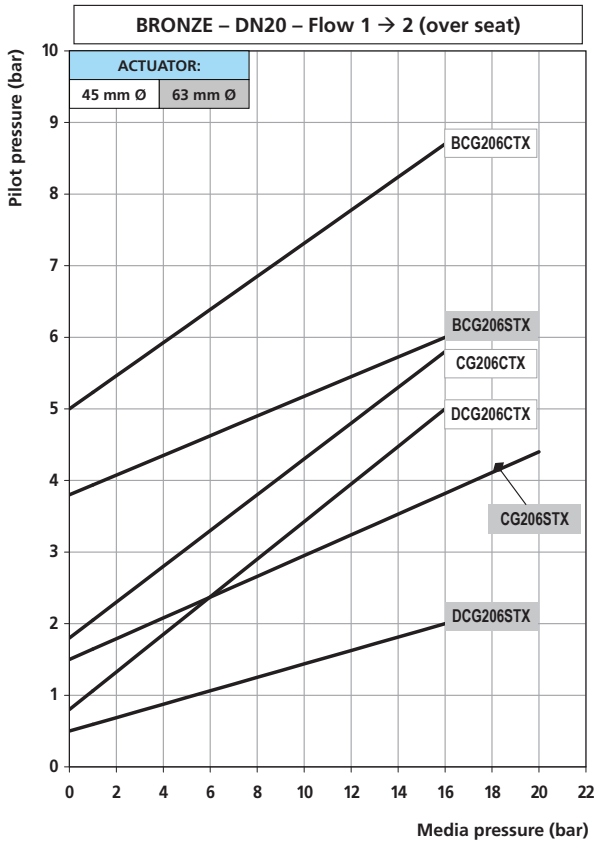
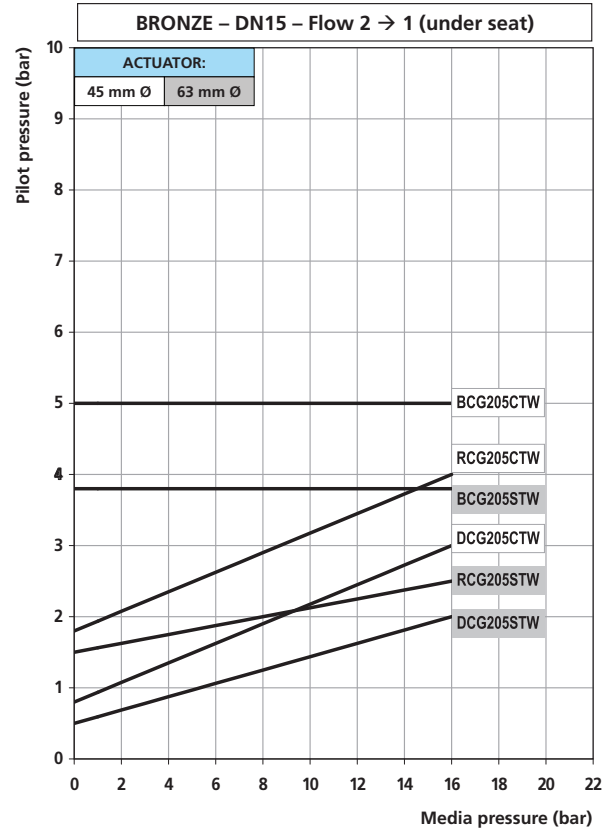
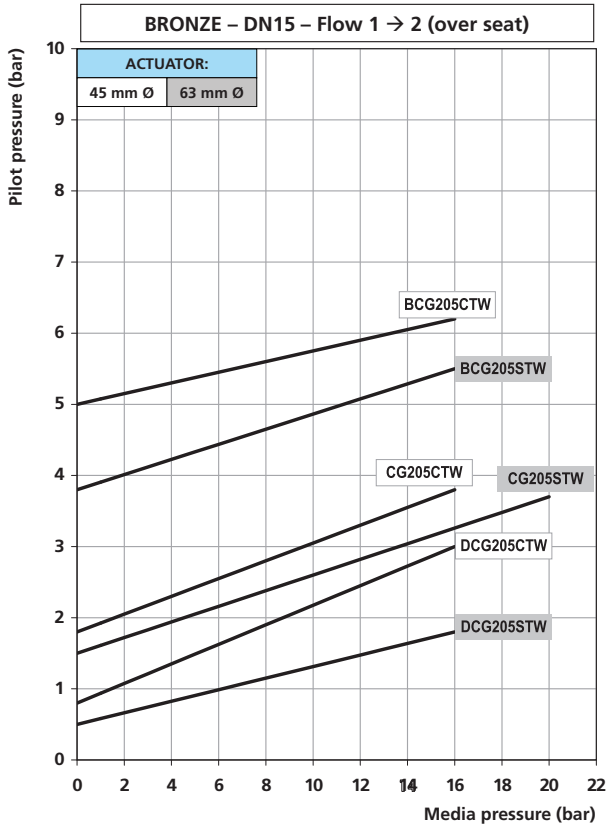
Normally Closed

Normally Open

SPARE PARTS KIT: Lip seal, o-rings, main seal, flat seal			
Kit Code	DN	Valve Type	Actuator
856 015 00-	15	CG/RCG/BCG- CN/RCN/BCN-	Ø 45
856 016 00-	20		
856 017 00-	25		
856 018 00-	15	DCG/DCN-	
856 019 00-	20		
856 020 00-	25		

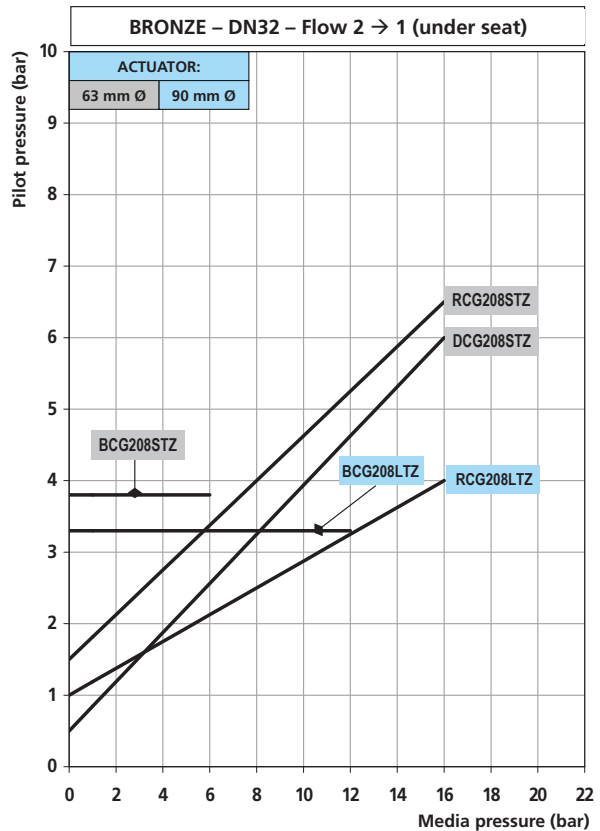
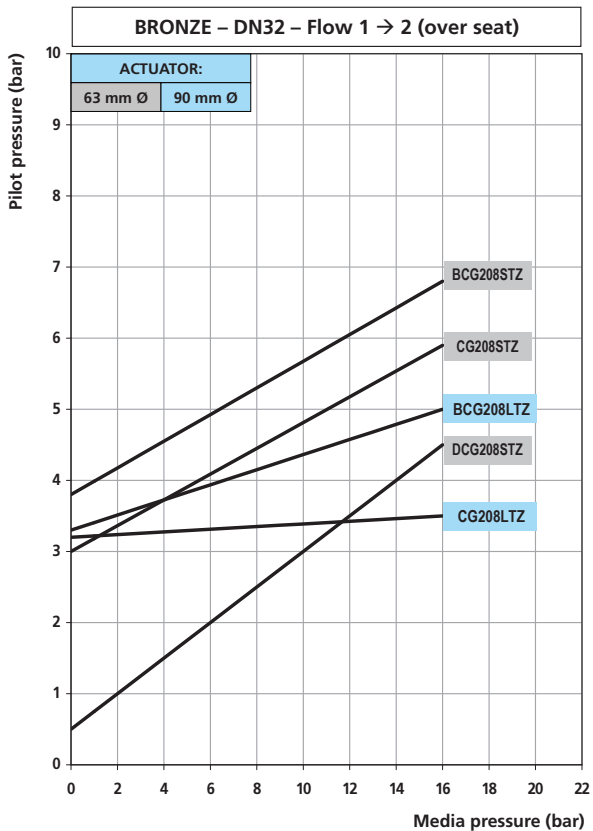
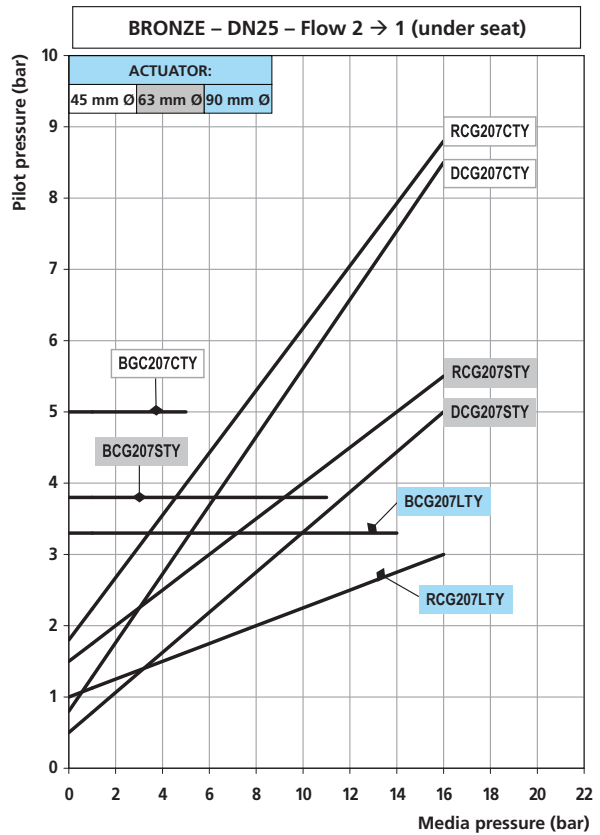
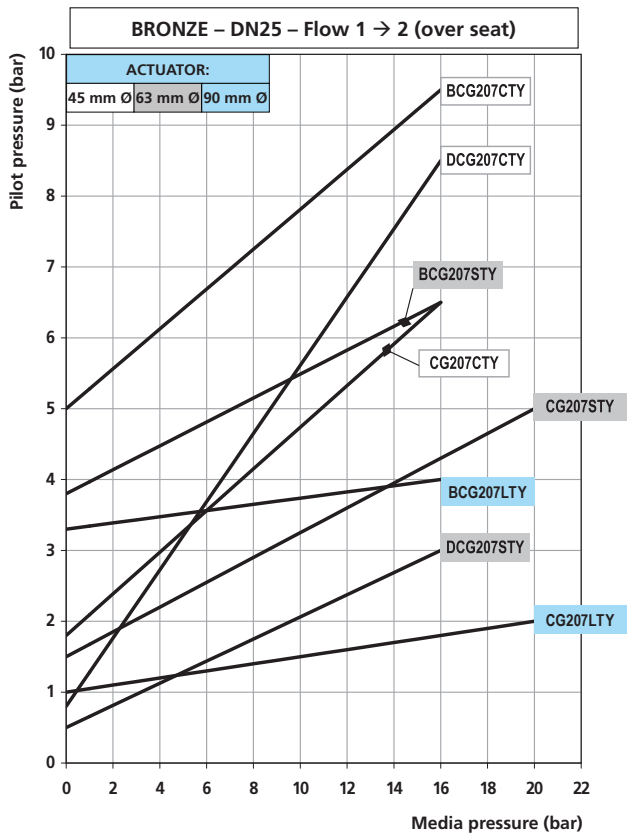
STEM SEALS KIT			
Kit Code	DN	Valve Type	Actuator
856 801 00-	all	all	Ø 45

Bronze Valves Comparative Charts DN15 to DN20



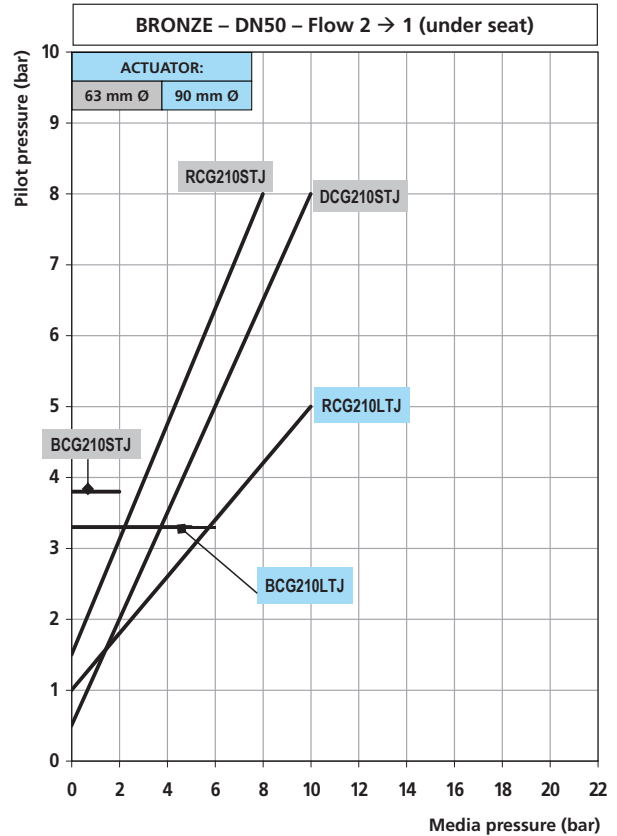
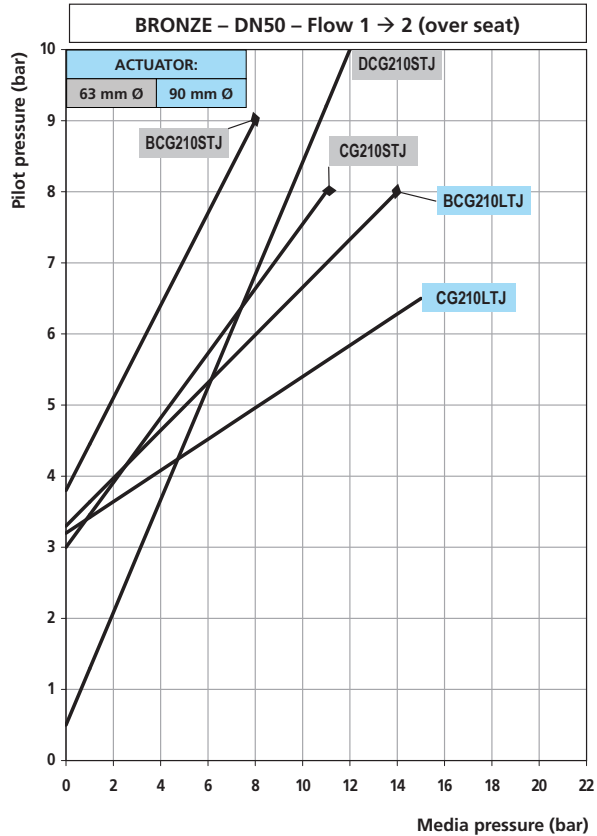
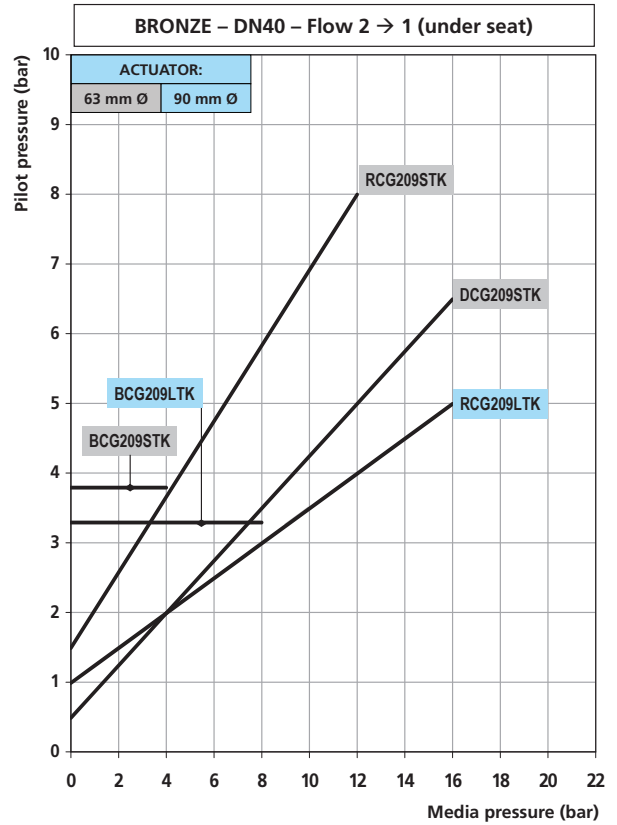
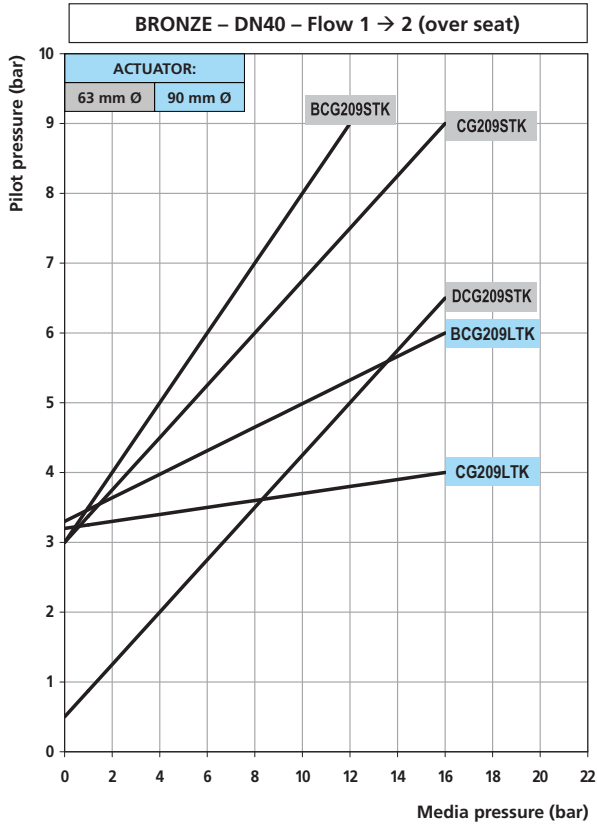
Version: CG = Normally Closed, BCG = Normally Closed (anti-waterhammer), RCG = Normally Open, DCG = Double Acting

Bronze Valves Comparative Charts DN25 to DN32



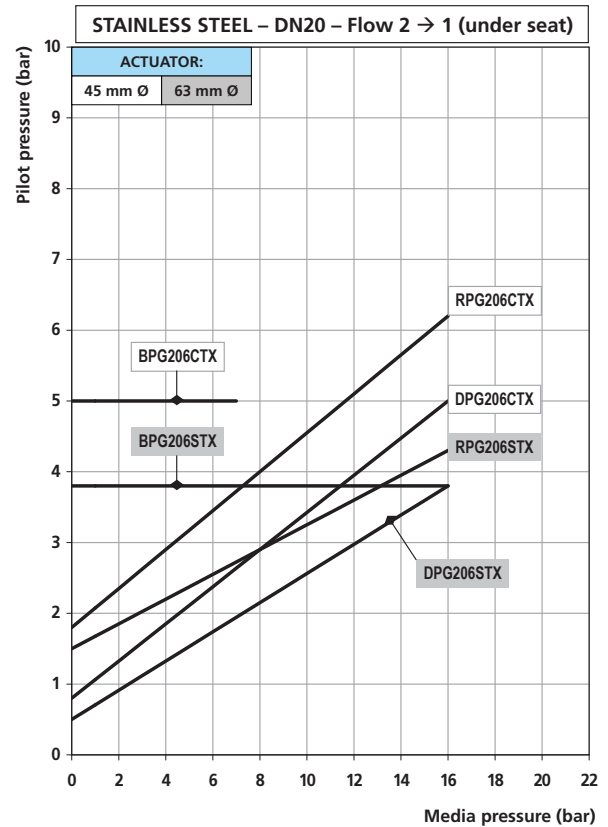
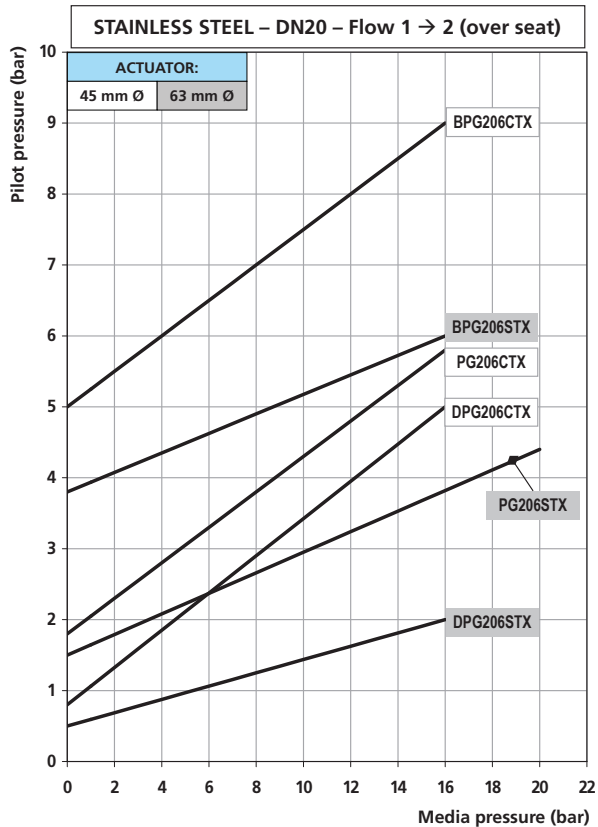
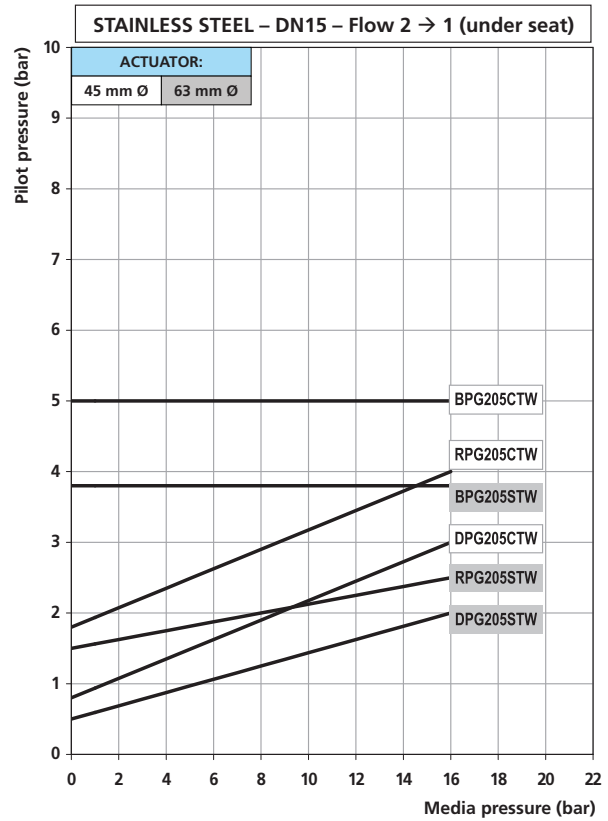
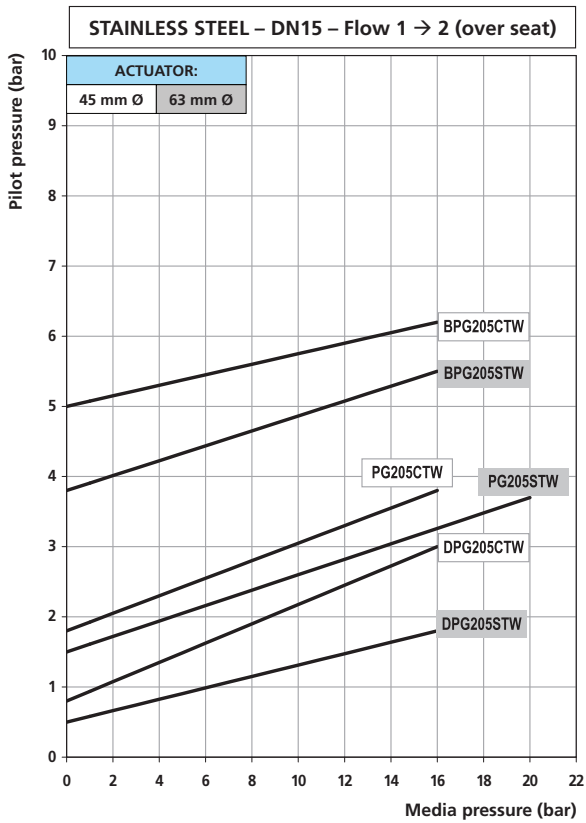
Version: CG = Normally Closed, BCG = Normally Closed (anti-waterhammer), RCG = Normally Open, DCG = Double Acting

Bronze Valves Comparative Charts DN40 to DN50



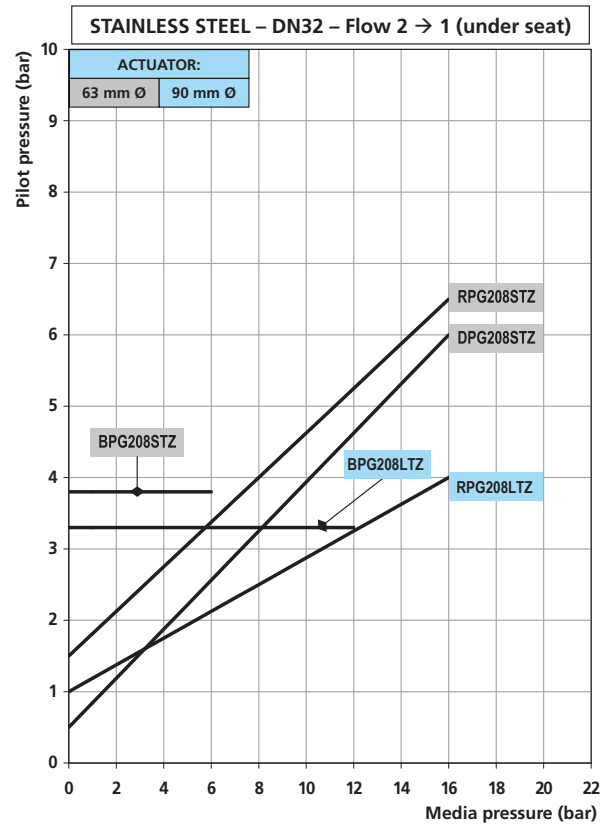
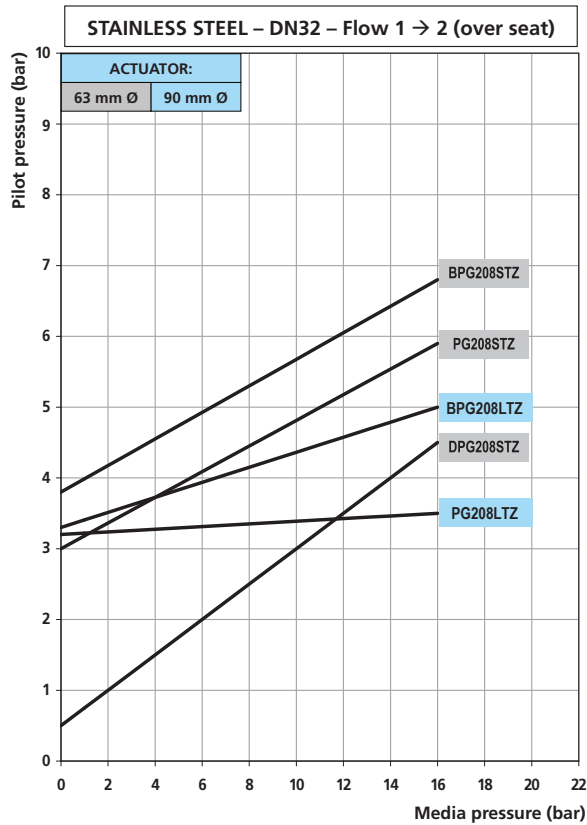
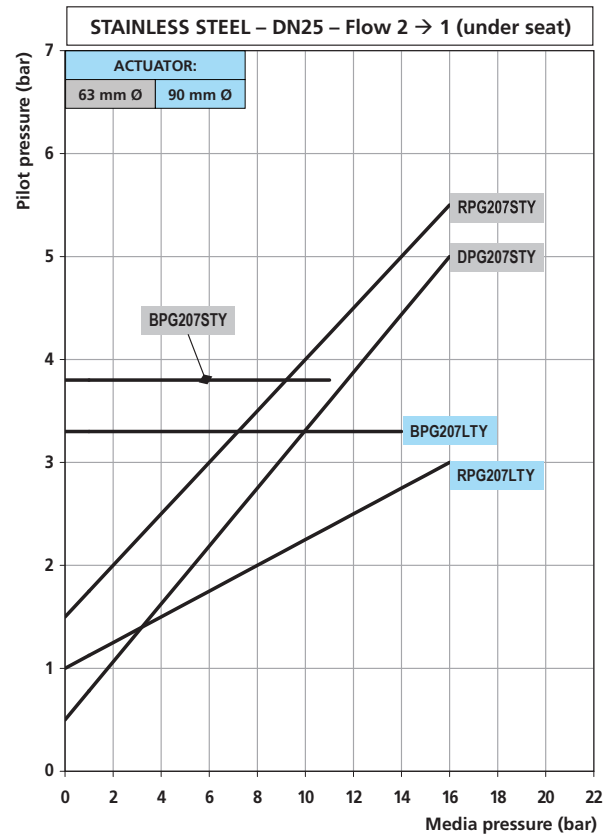
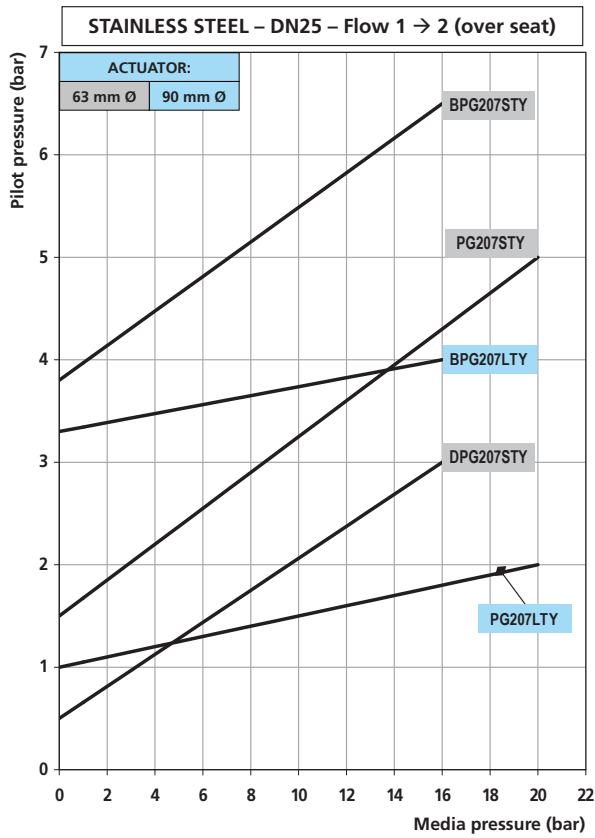
Version: CG = Normally Closed, BCG = Normally Closed (anti-waterhammer), RCG = Normally Open, DCG = Double Acting

Stainless Steel Valves Comparative Charts DN15 to DN20



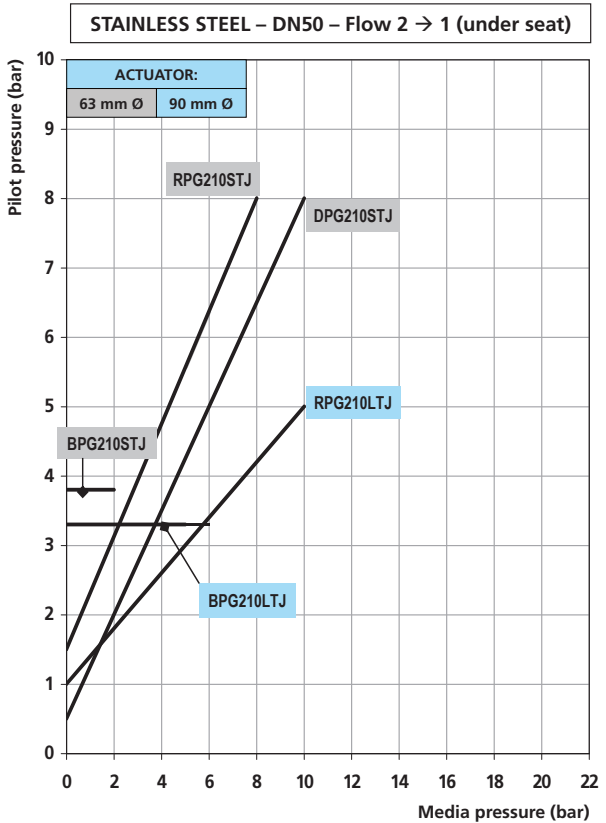
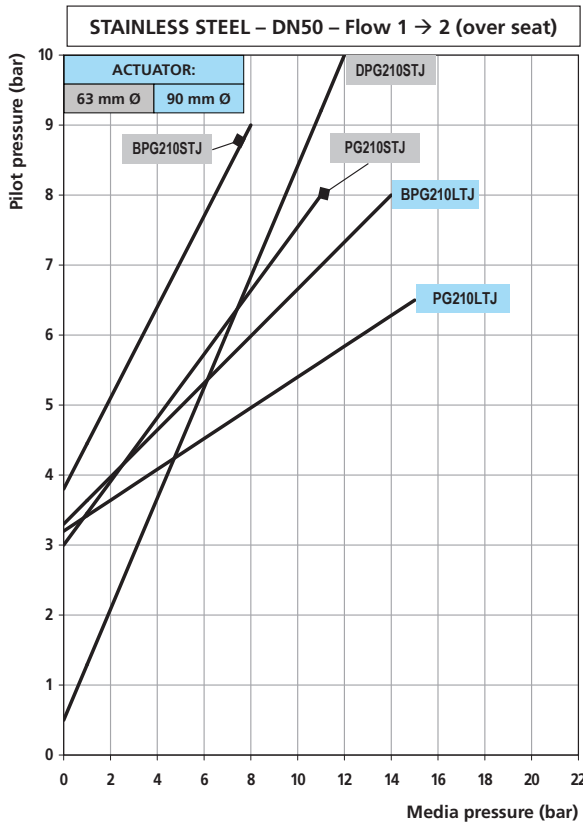
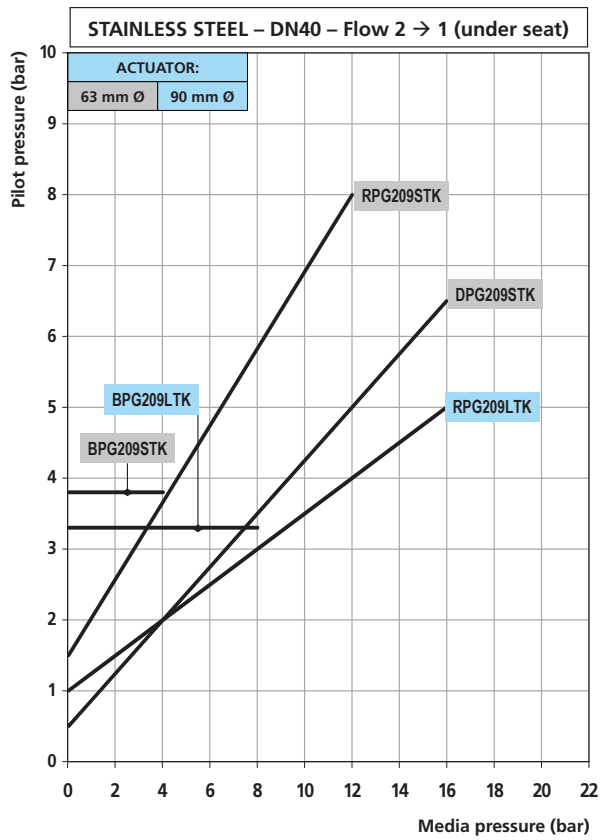
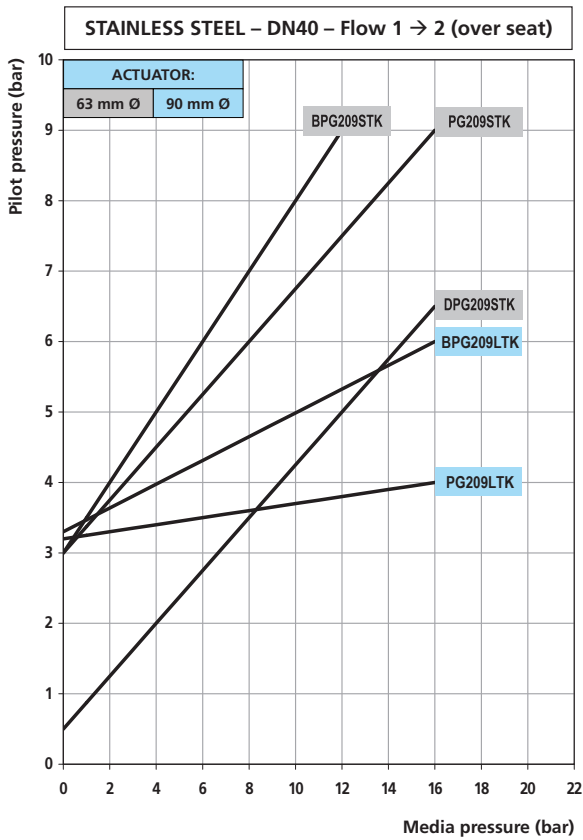
Version: PG = Normally Closed, BPG = Normally Closed (anti-waterhammer), RPG = Normally Open, DPG = Double Acting

Stainless Steel Valves Comparative Charts DN25 to DN32



Version: PG = Normally Closed, BPG = Normally Closed (anti-waterhammer), RPG = Normally Open, DPG = Double Acting

Stainless Steel Valves Comparative Charts DN40 to DN50



Version: PG = Normally Closed, BPG = Normally Closed (anti-waterhammer), RPG = Normally Open, DPG = Double Acting

Piston Valves Opening/Closing Time (sec)

Actuator Volume

NC Version – Flow Direction 1 → 2

DN [mm]	Actuator Ø 45 1,5 mm pilot orifice B356-		Actuator Ø 63 1,5 mm pilot orifice B326-		Actuator Ø 90 2,0 mm pilot orifice D326-	
	NC		NC		NC	
	o	c	o	c	o	c
15	0,09	0,22	0,14	0,3	-	-
20	0,09	0,22	0,2	0,3	-	-
25	-	-	0,32	0,34	0,32	0,34
32	-	-	0,34	0,38	0,36	0,4
40	-	-	0,34	0,38	0,4	0,46
50	-	-	0,36	0,38	0,4	0,46

Actuator [mm]	Air Volume [dm³]
Ø 45 mm	0,036
Ø 63 mm	0,099
Ø 90 mm	0,212

Notes:

Pilot pressure: 6 bar
 Pilot media: AIR
 Pressure in body: 0 bar
 For Normally Open valves (NO) invert columns o and c

Coding Chart

PISTON ACTUATED VALVE CODING

CODE	1	2	3	4	5	6	7	8	9	10	11	-	13-16	17	18					
Function	NC Normally closed		NC Bidirectional		NO Normally open		DA Double acting		Control / Modulating		Ways		SNG1 smart positioner		Fail safe / Fail freeze					
Serial Letter	Stainless steel type		Bronze / Brass type		Compact brass type		Orifice [Ø mm]		Seal Material		Special Execution		Optional Features							
Connection Type	Operator (w/o body)		Flange (ANSI B16.10 Class 150)		Butt weld (ISO 65 - ANSI B 36.10)		Clamp (ISO 2852)		Flange (EN 1092 shape B)		GAS (ISO 228G)		NPT		Clamp connection (ASME BPE)		Threaded spigots		Butt weld (DIN 11850)	
Valve Body ID. Code	3/8" (only for BLG)		1/2"		3/4"		1"		1 - 1/4"		1 - 1/2"		2"		1 3/4" (spigots only)		2 3/8" (spigots only)			
Actuator Type	Manual angle seat valve		Ø 32 only for BLG		Ø 45 Polyamide		Ø 63 Polyamide		Ø 90 Polyamide		Ø 63 AISI (for ATEX PAV)		Ø 90 AISI (for ATEX PAV)							

rotork®

Keeping the World Flowing

www.rotork.com

A full listing of our worldwide sales and service network is available on our website.

Rotork Instruments Italy Srl
24050 Orio al Serio (Bg) - ITALY Via Portico 17
tel +39 035 451161
fax +39 035 531763
email info.instruments-italy@rotork.com
web www.mminternational.net / www.rotork.com

Rotork are corporate members of the Institute of Asset Management



PUB125-001-00
Issue 11/18

As part of a process of on-going product development, Rotork reserves the right to amend and change specifications without prior notice. Published data may be subject to change. For the very latest version release, visit our website at www.rotork.com
The name Rotork is a registered trademark. Rotork recognises all registered trademarks. Published and produced in the UK by Rotork. Registered office: Rotork plc, Brassmill Lane, Bath, BA1 3JQ, UK. POWTG1118