

































## Pressure Actuated Valves

	Series	Material	Connection	Pressure	Temperature	Function	Page
	82160	Brass	G 1/4 - G 2	0.2 - 16 bar	+90 °C	2/2	134
	82180	Brass	G 1/2 - G 2	0 - 16 bar	+180 °C	2/2	136
	82280	Brass	G 1 1/4 - G 2	0 - 16 bar	+180 °C	2/2	136
	82580	Brass	G 1/2 - G 2	0 - 10 bar	+60 °C	2/2	138
	82710	Brass	G 1/4 - G 1/2	-0.9 - 6 bar	+90 °C	2/2	140
	84180 <b>NEW</b>	Brass	G 1/8 - G 1/2	0 - 25 bar	+90 °C	2/2	142
	84500	Brass	G 1/2 - G 3	0 - 16 bar	+180 °C	2/2	144
	84720	Brass	G 1/2 - G 1	0 - 16 bar	+180 °C	2/2	162
	83250	Gun metal	G 1/2 - G 2	0 - 16 bar	+180 °C	2/2	164
	82380	Stainless steel	G 1/2 - G 2	0 - 16 bar	+180 °C	2/2	166
	82480	Stainless steel	G 1 1/4 - G 2	0 - 16 bar	+180 °C	2/2	166
	84190 <b>NEW</b>	Stainless steel	G 1/8 - G 1/2	0 - 25 bar	+90 °C	2/2	168
	84520	Stainless steel	G 1/2 - G 3	0 - 16 bar	+180 °C	2/2	170
	84540	Stainless steel	DN 15 - DN 50	0 - 16 bar	+180 °C	2/2	174
	84550	Stainless steel	DN 15 - DN 50	0 - 16 bar	+180 °C	2/2	174
	84580	Stainless steel	DN 15 - DN 50	0 - 16 bar	+180 °C	2/2	178
	84590	Stainless steel	DN 15 - DN 50	0 - 16 bar	+180 °C	2/2	180

	Series	Material	Connection	Pressure	Temperature	Function	Page
	84740	Stainless steel	G 1/2 - G 1	0 - 16 bar	+180 °C	2/2	184
	84760	Stainless steel	DN 15 - DN 25	0 - 16 bar	+180 °C	2/2	186
	84770	Stainless steel	DN 15 - DN 25	0 - 16 bar	+180 °C	2/2	186
	84880	Stainless steel	DN 32 - DN 50	0 - 10 bar	+180 °C	2/2	178
	84890	Stainless steel	DN 32 - DN 50	0 - 10 bar	+180 °C	2/2	180
	83200	Grey cast iron	DN 15 - DN 100	0 - 16 bar	+180 °C	2/2	188
	83240	Grey cast iron	DN 15 - DN 100	0 - 16 bar	+180 °C	2/2	192
	83350	Grey cast iron	G 1/2 - G 2	0 - 10 bar	+80 °C	2/2	194
	83380	Grey cast iron	DN 15 - DN 150	0 - 10 bar	+80 °C	2/2	196
	83860	Cast steel	DN 15 - DN 25	0 - 25 bar	+140 °C	2/2	198

## Pressure Actuated Valves - Pilot Valves

	Series	Material	Connection	Pressure	Temperature	Function	Page
	84660	Brass	DN 1.6	1.0 - 10 bar	+60 °C	2/2	148
	84680	Brass	DN 3.0	1.0 - 10 bar	+60 °C	2/2	148
	96000	Brass	G 1/4	0 - 18 bar	+80 °C	3/2	152
	96100	Stainless steel	G 1/8	0 - 12 bar	+120 °C	3/2	154
	97100 NAMUR	Aluminium	G 1/8 - G 1/4	2 - 8 bar	+50 °C	3/2, 5/2, 5/3	156

## 2/2-way valves G 1/4 to G 2

For neutral fluids with high particle contamination  
 Externally actuated seat valves  
 Seat valves  
 Internal thread G 1/4 to G 2  
 Operating pressure: 0.2 to 16 bar

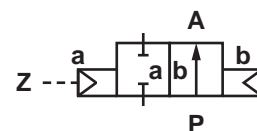


### Pilot pressure (min. = operating pressure, max. 16 bar)

G 1/4 - G 1/2                      max. 6 bar higher than operating pressure  
 G 3/4 - G 2                        max. 1 bar higher than operating pressure

### Description (standard valve)

Type:                                      pressure actuated seat valve  
     with diaphragm actuator  
 Switching function:                    normally closed with pilot pressure  
 Flow direction:                              determined  
 Fluid temperature:                        max. 90 °C  
 Differential pressure:                    0.2 bar required  
 Mounting position:                        as required



### Material

Body:                                        Brass  
 Cover:                                        Brass  
 Internal parts:                            Brass, Stainless steel  
 Seat seal:                                    NBR  
 Main sealing element:                 Fabric reinforced NBR diaphragm  
     with valve plate  
 Valve seat:                                   Brass

### Features

- For fluids with high particle contamination
- Fluid isolated from valve actuator
- Optimised dimensions and weight
- Vacuum version as an option
- Compact valve for industrial applications

### Technical data

Connection size G	DN mm	kv-Value m³/h	Part number	Operating pressure bar					
				NBR <b>00</b>	FPM 110 °C <b>03</b>	NBR higher pilot pressure* <b>51</b>	FPM higher pilot pressure* 110 °C <b>52</b>	FPM suitable for vacuum, spring below diaphragm 110 °C <b>53**</b>	NBR suitable for vacuum, spring below diaphragm <b>54**</b>
1/4	8	1.7	82160 <b>XX.0000.00000</b>	0.2 - 16	0.2 - 16	0.2 - 16		-0.9 - 16	-0.9 - 16
3/8	10	3.4	82161 <b>XX.0000.00000</b>	0.2 - 16	0.2 - 16	0.2 - 16		-0.9 - 16	-0.9 - 16
1/2	12	4.0	82162 <b>XX.0000.00000</b>	0.2 - 16	0.2 - 16	0.2 - 16		-0.9 - 16	-0.9 - 16
3/4	20	11.0	82163 <b>XX.0000.00000</b>	0.2 - 16	0.2 - 16	0.2 - 16	0.2 - 16	-0.9 - 16	-0.9 - 16
1	25	13.0	82164 <b>XX.0000.00000</b>	0.2 - 16	0.2 - 16	0.2 - 16	0.2 - 16	-0.9 - 16	-0.9 - 16
1 1/4	32	28.0	82165 <b>XX.0000.00000</b>	0.2 - 16	0.2 - 16	0.2 - 16	0.2 - 16	-0.9 - 16	-0.9 - 16
1 1/2	40	31.0	82166 <b>XX.0000.00000</b>	0.2 - 16	0.2 - 16	0.2 - 16	0.2 - 16	-0.9 - 16	-0.9 - 16
2	50	46.0	82167 <b>XX.0000.00000</b>	0.2 - 16	0.2 - 16	0.2 - 16	0.2 - 16	-0.9 - 16	-0.9 - 16

\* Pilot pressure maximum 6 bar higher than operating pressure, maximum pilot pressure 16 bar

\*\* Valve body length 55 mm up to G 1/2

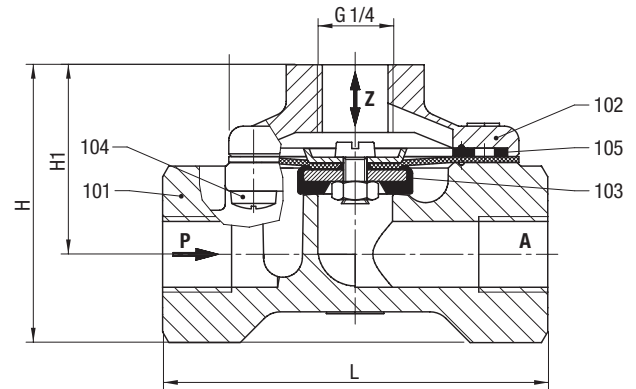
## Drawing legend

Index	Description
101	Valve body
102	Valve cover
*103	Diaphragm
104	Oval head cap screw up to G 1/2 Allen head screw from G 3/4
*105	Gasket - not for G 3/4 and G 1

\* A service kit consists of these individual parts.

Connection size G	L mm	B* mm	H mm	H1 mm
1/4	67	44	48	33
3/8	67	44	48	33
1/2	67	44	48	33
3/4	95	70	81	57
1	95	70	81	57
1 1/4	132	96	103	70
1 1/2	132	96	103	70
2	160	112	121	81

\* B = maximum width



## Service kits

For valves	Part number
8216000	1234677
8216100	1234677
8216200	1234677
8216300	1222965
8216400	1222965
8216500	1252653
8216600	1252653
8216700	1252654

## Further options on request

Please turn to page 276 for technical information on our valves.

## 2/2-way valves DN 15 to DN 50

For neutral gases and liquids

Pressure actuated by external fluid

Seat valves

Internal thread G 1/2 to G 2 or 1/2" NPT to 2" NPT

### Description (standard valve)

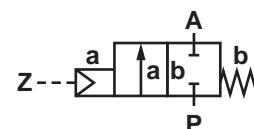
Switching function: normally closed  
 Flow direction: determined  
 Mounting position: as required

### Process fluid characteristics / Valve material

Fluid temperature: -10 °C up to max. +180 °C  
 Ambient temperature: -10 °C up to max. +60 °C  
 Body / Valve seat: Dezincification resistant brass  
 Seat seal: PTFE  
 Internal parts: Brass, Stainless steel  
 Spindle sealing: PTFE / FPM, self-adjusting

### Pilot fluid characteristics / Actuator material

Pilot connection: G 1/4 or 1/4" NPT, respectively  
 Pilot fluid: neutral gases  
 Fluid temperature: max. +80 °C  
 Actuator: Body: Stainless steel, Aluminium  
 Bottom: WEMA-Kor coated  
 Seat seal: NBR  
 Internal parts: Coated steel



### Features

- High flow rate
- Suitable for contaminated process fluids
- Damped closing (valve closes against flow direction)
- For robust industry applications
- Suitable for vacuum up to max. 90%

### Technical data

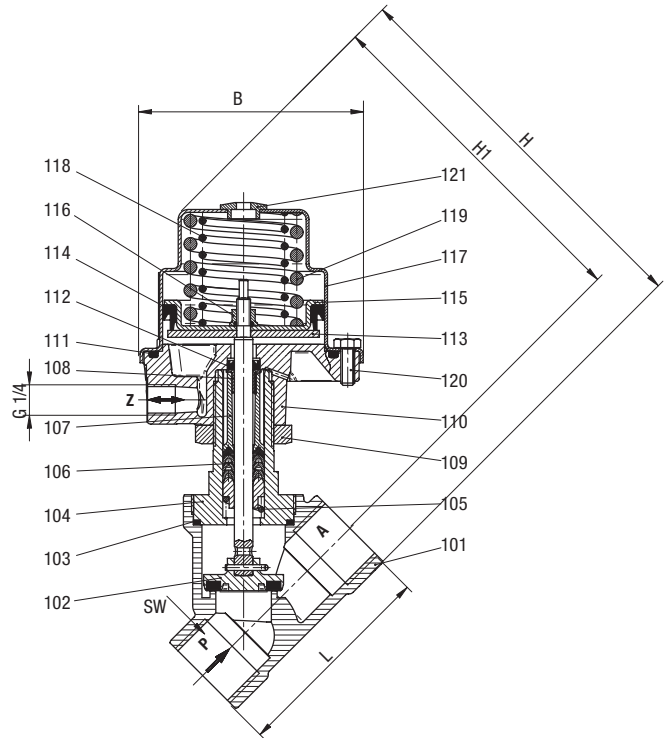
Connection size G	DN mm	kv-Value m³/h	Part number	Operating pressure bar*				
				PTFE	Normally open	Position indicator: 2 switches, Ex-protected	Position indicator: on / off with micro switches	Fluid temperature +200 °C
				<b>00</b>	<b>01**</b>	<b>40</b>	<b>41</b>	<b>59</b>
1/2	15	4.8	82182 <b>XX</b> .0000. <b>00000</b>	0 - 16	0 - 16	0 - 16	0 - 16	0 - 16
3/4	20	10.0	82183 <b>XX</b> .0000. <b>00000</b>	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10
1	25	14.0	82184 <b>XX</b> .0000. <b>00000</b>	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10
1 1/4	32	23.0	82185 <b>XX</b> .0000. <b>00000</b>	0 - 7	0 - 7	0 - 7	0 - 7	0 - 7
1 1/2	40	30.0	82186 <b>XX</b> .0000. <b>00000</b>	0 - 4.5	0 - 4.5	0 - 4.5	0 - 4.5	0 - 4.5
2	50	37.0	82187 <b>XX</b> .0000. <b>00000</b>	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3
1 1/4	32	27.0	82285 <b>XX</b> .0000. <b>00000</b>	0 - 16	0 - 16	0 - 16	0 - 16	0 - 16
1 1/2	40	37.0	82286 <b>XX</b> .0000. <b>00000</b>	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10
2	50	53.0	82287 <b>XX</b> .0000. <b>00000</b>	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10

\* Pilot pressure 3.5 - 8 bar

\*\* Pilot pressure 1 - 6 bar

**Drawing legend**

Index	Description
101	Valve body
*102	Valve spindle assembly
*103	Gasket
104	Screw piece
*105	Pressure spring
*106	Spindle sealing
107	Spacer sleeve
*108	Sleeve bearing
109	Nut
110	Bottom of control head housing
*111	O-ring
*112	Lip seal
113	Round plate
*114	Lip seal
115	Round plate
*116	Seal-Lock® nut
117	Control head housing
*118	Pressure spring - G 1 and G 2 only
*119	Pressure spring
120	Hexagon screw
121	Screw tap



\* A service kit consists of these individual parts.

Connection size G	L mm	B* mm	H mm	H1 mm	SW mm
1/2	65	89.5	154.0	140.5	27
3/4	75	89.5	160.0	144.0	32
1	90	89.5	171.0	150.5	41
1 1/4	110	89.5	186.0	161.0	50
1 1/2	120	89.5	190.0	162.5	55
2	150	89.5	206.0	171.0	70
1 1/4	110	163.0	250.0	225.0	50
1 1/2	120	163.0	255.0	227.5	55
2	150	163.0	270.0	235.0	70

\* B = maximum width

**Service kits**

For valves	Part number
8218200	1248931
8218300	1249643
8218400	1248994
8218500	1249645
8218600	1249646
8218700	1249647
8228500	1249648
8228600	1249649
8228700	1249650

**Further options (valves)**

XXXXX**22**.XXXX Increased operating pressure for G 1/2: 25 bar, and for G 3/4: 16 bar

XXXXX**52**.XXXX Optical position indicator

**Further options on request**

For hazardous environments

Please turn to page 276 for technical information on our valves.

**Accessories**

3/2-way pilot valves 84660 / 84680, page 148

Pressure Actuated Valves

## 2/2-way valves DN 15 to DN 50 with DVGW-approval

For neutral burnable gases and other neutral gases  
 Pressure actuated by external fluid  
 Seat valves  
 Internal thread G 1/2 to G 2  
 Operating pressure: 0 to 10 bar, pilot pressure 5 to 8 bar (see technical data)

### Description (standard valve)

Switching function: normally closed  
 Flow direction: determined  
 Mounting position: as required

### Process fluid characteristics / Valve material

Fluid temperature: -10 °C up to max. +60 °C  
 Ambient temperature: -10 °C up to max. +60 °C  
 Body: Dezincification resistant brass  
 Seat seal: FPM  
 Spindle sealing: FPM  
 Internal parts: Brass, Stainless steel  
 Spindle sealing: PTFE / FPM, self-adjusting

### Pilot fluid characteristics / Actuator material

Pilot connection: G 1/4  
 Actuator: Body: Stainless steel  
 Bottom: Aluminium WEMA-Kor coated  
 Seat seal: NBR  
 Internal parts: Coated steel

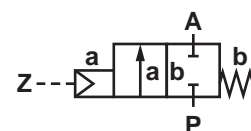
### Features

- EC-Type Examination Certificate product ID-No.: CE-0085 AT0091, valve class A, valve group 2
- High functional reliability
- Short response time < 1 s
- For robust industry applications
- Qualification approval: EN 161/3394 part 1

### Technical data

Connection size G	DN mm	kv-Value m³/h	Part number	Operating pressure bar			
				FPM	Position indicator: on / off with micro switches	With male screw fitting	DVGW approved pilot valve mounted on the main valve
				<b>00</b>	<b>41</b>	<b>80</b>	<b>Solenoid 0247</b>
1/2	15	4.8	82582 <b>XX.0000.00000</b>	0 - 4	0 - 4	0 - 10	0 - 4 / 0 - 10
3/4	20	10.0	82583 <b>XX.0000.00000</b>	0 - 4	0 - 4	0 - 10	0 - 4 / 0 - 10
1	25	14.0	82584 <b>XX.0000.00000</b>	0 - 4	0 - 4	0 - 10	0 - 4 / 0 - 10
1 1/4	32	23.0	82585 <b>XX.0000.00000</b>	0 - 4	0 - 4	0 - 10	0 - 4 / 0 - 10
1 1/2	40	30.0	82586 <b>XX.0000.00000</b>	0 - 4	0 - 4	0 - 10	0 - 4 / 0 - 10
2	50	37.0	82587 <b>XX.0000.00000</b>	0 - 4	0 - 4	0 - 10	0 - 4 / 0 - 10

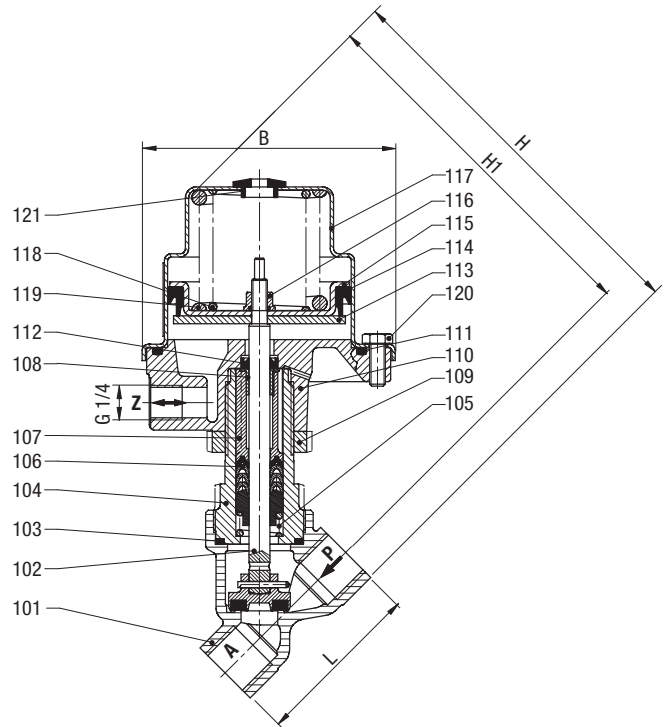
Pilot pressure 5 - 8 bar



## Drawing legend

Index	Description
101	Valve body
*102	Valve spindle
*103	O-ring
104	Screw piece
*105	Pressure spring
*106	Spindle sealing
107	Spacer sleeve
*108	Sleeve bearing
109	Nut
110	Bottom of control head housing
*111	O-ring
*112	Lip seal
113	Round plate
*114	Lip seal
115	Round plate
*116	Seal-Lock® nut
117	Control head housing
*118	Pressure spring
*119	Pressure spring
120	Hexagon screw
121	Screw tap

\* A service kit consists of these individual parts.



Connection size G	L mm	B mm	H mm	H1 mm
1/2	65	89.5	154.0	140.5
3/4	75	89.5	160.0	144.0
1	90	89.5	171.0	150.5
1 1/4	110	89.5	186.0	161.0
1 1/2	120	89.5	190.0	162.5
2	150	89.5	206.0	171.0

Note: Pressure-tight screw joints (e.g. NPT) are not approved for use with gaseous fuels and pressures exceeding 4 bar.

## Service kits

For valves	Part number
8258200	1260269
8258300	-
8258400	-
8258500	1263620
8258600	-
8258700	-

## Further options (valves)

XXXXX50.XXXX Parts in contact with medium assembled free of oil and grease, body painted blue

XXXXX53.XXXX Optical position indicator

## Further options on request

Note: As the type 82580 is a safety shutoff valve, the switching function "normally open" is not available.

Please turn to page 276 for technical information on our valves.



## 2/2-way valves DN 8 to DN 12

For neutral gases and liquids  
 Pressure actuated by external fluid  
 Diaphragm valves  
 Internal thread G 1/4 to G 1/2  
 Operating pressure: -0.9 to 6 bar

### Description (standard valve)

Valve for neutral gases and liquids up to max. 80 mm<sup>2</sup>/s (cSt)  
 Switching function: normally closed  
 Flow direction: as required  
 Mounting position: as required

### Process fluid characteristics / Valve material

Range of process fluid  
 Fluid temperature: max. +90 °C  
 Ambient temperature: max. +50 °C  
 Material body: Brass  
 Seat seal: Fabric reinforced NBR diaphragm

### Pilot fluid characteristics / Actuator material

Pilot fluid: air, water, hydraulic oil  
 Fluid temperature: max. +90 °C  
 Body: Brass, PPO (cover)  
 Seat seal: Fabric reinforced NBR diaphragm  
 Pilot connection: G 1/8

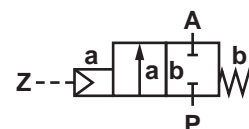
### Features

- Spindle seal with diaphragm
- Suitable for contaminated process fluids
- Optical position indicator is standard

### Technical data

Connection size G	DN mm	kv-Value m <sup>3</sup> /h	Part number	Operating pressure bar			
				NBR 00	Normally open 01	FPM 110 °C 03	EPDM 110 °C 14
1/4	8	1.9	82710XX.0000.00000	-0.9 - 6	-0.9 - 6	-0.9 - 6	-0.9 - 6
3/8	10	2.4	82711XX.0000.00000	-0.9 - 6	-0.9 - 6	-0.9 - 6	-0.9 - 6
1/2	12	2.9	82712XX.0000.00000	-0.9 - 6	-0.9 - 6	-0.9 - 6	-0.9 - 6

Pilot pressure 3 - 8 bar, minimum 4 bar under vacuum conditions

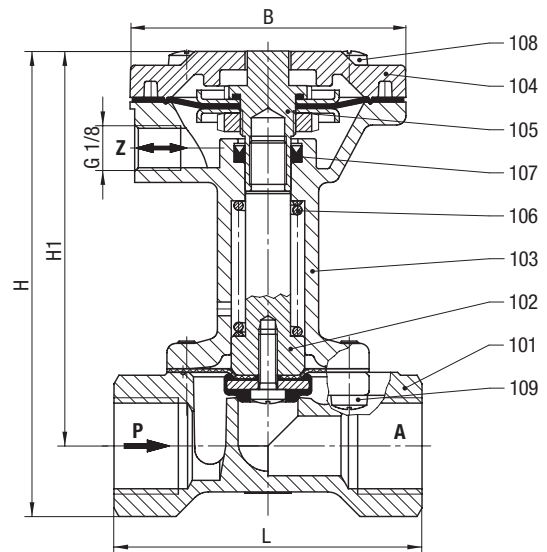


## Drawing legend

Index	Description
101	Valve body
102	Valve plate
103	Control head housing
104	Control head housing cover
*105	Diaphragm
*106	Pressure spring
*107	Lip seal
*108	Oval head cap screw

\* A service kit consists of these individual parts.

Connection size G	L mm	B mm	H mm	H1 mm
1/4	67	60	101	86
3/8	67	60	101	86
1/2	67	60	101	86



## Service kits

For valves	Part number
8271000	1250546
8271100	1250546
8271200	1250546

## Further options (valves)

- XXXX50.XXXX For G 3/8 and G 1/2 only:  
 valve body manufactured from 1.4581 stainless steel,  
 internal parts in contact with fluid from 1.4301 stainless steel,  
 Sandvik 1802 stainless steel
- XXXX51.XXXX Only for G 3/8 and G 1/2:  
 seat seal: FPM,  
 FPM-diaphragm (Number 102),  
 body manufactured from 1.4581 stainless steel,  
 internal parts with contact to fluids manufactured  
 from 1.4301 stainless steel, Sandvik 1802 stainless steel,  
 maximum fluid temperature +110 °C
- XXXX52.XXXX Seat seal: FFPM,  
 separating diaphragm PTFE-foil with FPM-diaphragm,  
 body manufactured from 1.4581 stainless steel,  
 internal parts with contact to fluids manufactured  
 from 1.4571 stainless steel and A4 stainless steel,  
 maximum fluid temperature +110 °C,  
 0 to 6 bar

## Further options on request

### Accessories

3/2-way pilot valve 8466053.9101 AC / DC\* (page 148)

\* Specify voltage and frequency when ordering.

Please turn to page 276 for technical information on our valves.

## 2/2-way valves DN 2 to DN 10

For neutral gases and liquids up to 600 mm<sup>2</sup>/s  
 Pressure actuated by external fluid  
 Piston seat valves  
 Internal thread G 1/8 to G 1/2  
 Operating pressure: max. 25 bar (see technical data)

### Description (standard valve)

Switching function: normally closed  
 Flow direction: determined  
 Mounting position: as required

### Process fluid characteristics / Valve material

Fluid temperature: -10 °C up to max. +90 °C  
 Ambient temperature: -10 °C up to max. +60 °C  
 Body: Brass  
 Seat seal: PTFE  
 Internal parts: Stainless steel / Brass  
 Spindle sealing: PTFE / NBR self-adjusting

### Pilot fluid characteristics / Actuator material

Pilot fluid: neutral gases  
 Fluid temperature: max. +60 °C  
 Body: Brass  
 Seat seal: NBR  
 Internal parts: Stainless steel, Brass  
 Pilot connection: M5  
 Pilot pressure: 4-10 bar

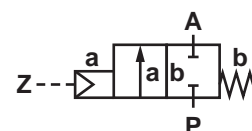
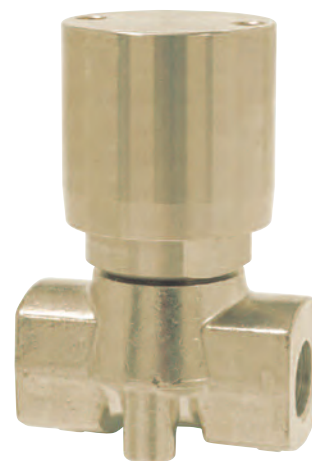
### Features

- Small, compact 30 mm miniature actuator
- Actuator can be swiveled 360°
- Suitable for contaminated process fluids
- Suitable for vacuum up to max. 90%
- Reversed flow direction optional
- High flow rate
- Valve operates without pressure differential
- Body with M5 fastening thread as standard

### Technical data

Connection size G	DN mm	kv-Value m <sup>3</sup> /h	Part number	Operating pressure bar PTFE*
1/8	2.0	0.12	8418800.0000.00000	0 - 25
1/4	4.0	0.35	8418020.0000.00000	0 - 25
3/8	6.0	0.60	8418140.0000.00000	0 - 20
1/2	10.0	1.80	8418260.0000.00000	0 - 8

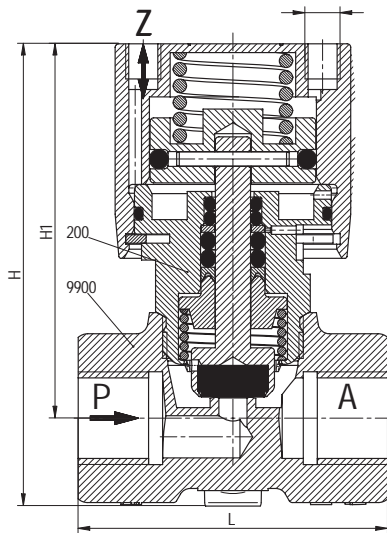
\* Pilot pressure 4 - 10 bar



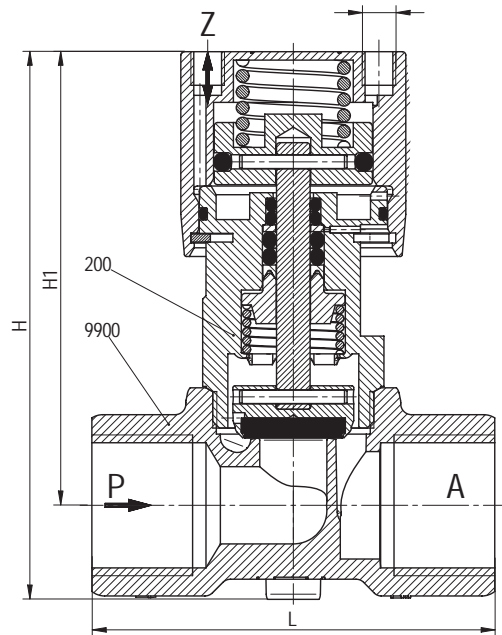
## Drawing legend

Index	Description
200	Actuator
9900	Valve body

### G 1/8 - G 3/8



### G 1/2



Connection size G	L mm	H mm	H1 mm	B* mm
1/8	44	65	53	33
1/4	44	65	53	33
3/8	44	65	53	33
1/2	60	81	67	33

\* B = maximum width

## Further options on request

- Normally open
- Seat seal: FPM
- Seat seal: EPDM
- Double acting actuation
- Oxygen version
- Higher operating pressure

Please turn to page 276 for technical information on our valves.

## 2/2-way valves DN 15 to DN 80

For neutral gases and liquids  
 Pressure actuated by external fluid  
 Seat valves  
 Internal thread G 1/2 to G 3 or 1/2" NPT to 3" NPT  
 Operating pressure: see technical data

### Description (standard valve)

Switching function: normally closed  
 Flow direction: determined  
 Mounting position: as required

### Process fluid characteristics / Valve material

Fluid temperature: -10 °C up to max. +180 °C  
 Ambient temperature: -10 °C up to max. +60 °C  
 Body: Dezincification resistant brass  
 Seat seal: PTFE  
 Internal parts: Brass, Stainless steel  
 Spindle sealing: PTFE / FPM, self-adjusting

### Pilot fluid characteristics / Actuator material

Pilot connection: G 1/4 or 1/4" NPT, respectively  
 Pilot fluid: neutral gases  
 Fluid temperature: max. +60 °C  
 Body: Polyamid 66 with 30% fibre glass  
 Seat seal: NBR  
 Internal parts: Brass, Stainless steel

### Features

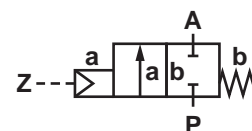
- Easy conversion into "normally open" or "double-acting" without tools (actuator Ø 70 mm only)
- Optical position indicator is standard
- Damped closing (valve closes against flow direction)
- Suitable for contaminated process fluids
- Suitable for vacuum up to max. 90% (actuator Ø 70 mm only)
- Reversed flow direction optional
- High flow rate
- Optional pressure actuation with liquid pilot fluids

### Technical data actuator Ø 70 mm

Connection size G	DN mm	kv-Value m³/h	Part number	Operating pressure bar**				
				PTFE 00	Normally open* 01	Position indicator: on / off with micro switches 23	NAMUR adapter plate 50	Position indicator to NAMUR EN 50227 58
1/2	15	4.8	84502XX.0000.00000	0 - 16	0 - 16	0 - 16	0 - 16	0 - 16
3/4	20	10.0	84503XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10
1	25	14.0	84504XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10
1 1/4	32	23.0	84505XX.0000.00000	0 - 7	0 - 7	0 - 7	0 - 7	0 - 7
1 1/2	40	30.0	84506XX.0000.00000	0 - 4.5	0 - 4.5	0 - 4.5	0 - 4.5	0 - 4.5
2	50	37.0	84507XX.0000.00000	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3

\* Pilot pressure 1 - 10 bar, pilot connection Z1

\*\* Pilot pressure 3.5 - 10 bar, pilot connection Z2



## Technical data actuator Ø 120 mm

Connection size G	DN mm	kv-Value m³/h	Part number	Operating pressure bar			
				PTFE	Normally open*	Position indicator: 2 switches, IP 65	Position indicator to NAMUR EN 50227
				<b>80</b>	<b>81</b>	<b>83</b>	<b>88</b>
1 1/4	32	23.0	84505XX.0000.00000	0 - 16	0 - 16	0 - 16	0 - 16
1 1/2	40	41.0	84506XX.0000.00000	0 - 12	0 - 12	0 - 12	0 - 12
2	50	70.0	84507XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 10
2 1/2	65	107.0	84508XX.0000.00000	0 - 7	0 - 7	0 - 7	0 - 7
3	80	157.0	84509XX.0000.00000	0 - 5	0 - 5	0 - 5	0 - 5

\* 8X = Pilot pressure 5.0 - 7 bar

81= Pilot pressure 1.0 - 7 bar

## Drawing legend

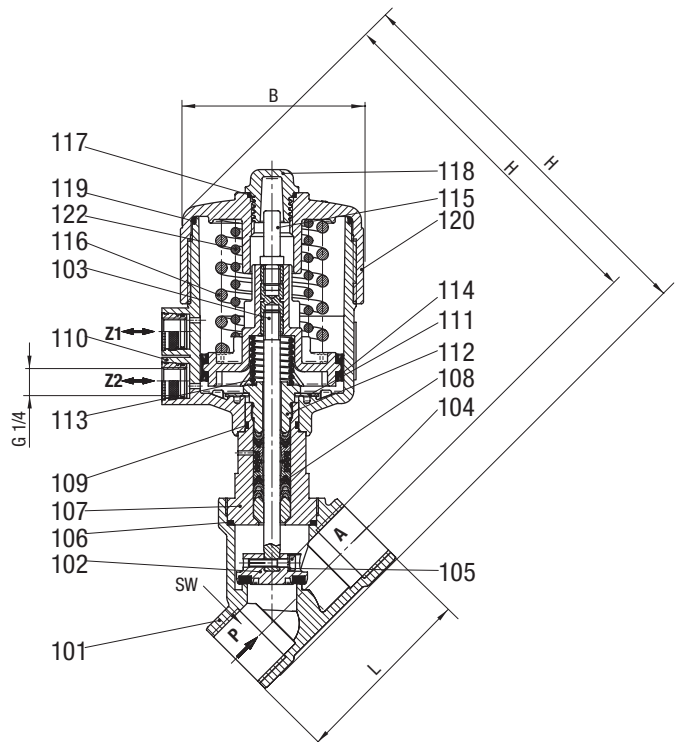
Index	Description
101	Valve body
*102	Valve plate
103	Valve spindle assembly
104	Allen head screw
105	Spring washer
*106	Gasket
107	Screw piece
*108	Spindle sealing
*109	O-ring
110	Bottom of control head housing
*111	Cup spring
112	Screw piece
*113	Pressure spring
*114	Piston seal
115	Signal pin
*116	Pressure spring
*117	O-ring
118	End cap
*119	O-ring
120	Control head housing cover
*122	Pressure spring

\* A service kit consists of these individual parts.

Connection size G	L mm	B* mm	H mm	H1 mm	SW mm
1/2	65	89.5	177.5	164.0	27
3/4	75	89.5	184.0	168.0	32
1	90	89.5	194.5	174.0	41
1 1/4	110	89.5	209.5	184.5	50
1 1/2	120	89.5	208.5	186.0	55
2	150	89.5	229.5	194.5	70

\* B = maximum width

## Actuator Ø 70 mm



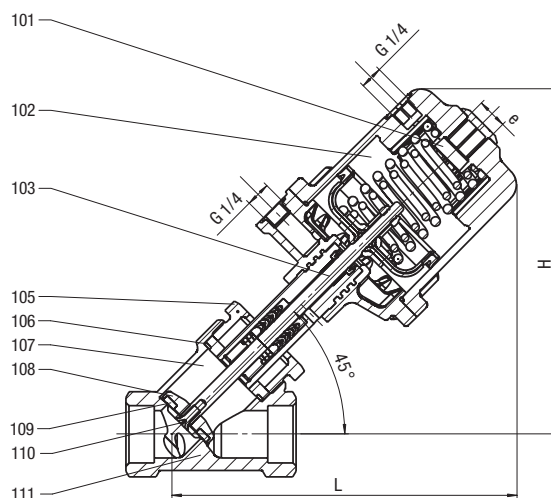
## Drawing legend

Index	Description
101	Connection 4 / Exhaust port (NC)
102	Actuator
103	Connection 2/ pilot pressure port (NC)
105	Nut
106	Gasket
107	Spindle
108	Valve plate
109	Seat seal
110	Nut
111	Valve body

Connection size G	L mm	H mm
1 1/4	287	287
1 1/2	293	293
2	9301	301
2 1/2	313	313
3	330	330

\* B = maximum width

## Actuator Ø 120 mm



## Service kits for actuator Ø 70 mm

For valves	Part number
8450200	1256694
8450300	1256695
8450400	1256696
8450500	1256697
8450600	1256698
8450700	1256699

## Further options (valves)

XXXX08.XXXX Double acting; 4/2 or 5/2-way pilot valve required  
 XXXX22.XXXX Higher operating pressure (actuator Ø 70 mm only)

## Further options on request

- Seal materials: NBR, FPM, EPDM
- Stroke limiter
- Silencer
- Electrical position indicator with electromagnetic induction sensors

## Accessories

3/2-way pilot valves 84660 / 84680, page 148

## Note:

Order service kit 1264287 if these valves are to be used in Zone 1/2 or 21/22 hazardous areas. This kit includes an additional instruction plate, a declaration of conformity and a silencer. The maximum permissible fluid temperature is reduced to +85 °C (for actuator Ø 70 mm only).

Please turn to page 276 for technical information on our valves.



Pressure Actuated Valves



## 3/2-way valves DN 1.6 and DN 3.0

Pilot valve for pressure actuated valves  
 Indirectly solenoid actuated  
 Seat valve  
 Connection P female thread G 1/4; connection A male thread G 1/4  
 Operating pressure: 1 to 10 bar

**Click-on®**  
 Solenoid interchangeable without tools



### Description (standard valve)

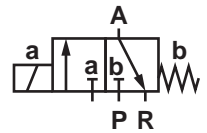
Solenoid valve for filtered, lubricated or non-lubricated compressed air or neutral liquids  
 Switching function: normally closed  
 Flow direction: determined  
 Fluid temperature: -10 °C up to max. +60 °C  
 Ambient temperature: -10 °C up to max. +60 °C  
 Mounting position: as required, preferably with solenoid vertical on top

### Material

Body: Brass  
 Seat seal: TPU  
 Internal parts: Stainless steel, PPS

### Features

- Compact design
- Complete with connector and gasket
- Interchangeable solenoid system
- Silenced exhaust
- Low power consumption



### Technical data

Connection size G*	DN mm	Flow l/min	Switching time** ms		Part number***	Operating pressure bar		
			On	Off		TPU 00	Normally open 01	Manual override 02
1/4	1.6	1.2	8.5	30.4	84660XX.9101.00000	1 - 10	-	1 - 10
1/4	3.0	3.3	15.0	81.9	84680XX.9151.00000	1 - 10	1 - 10	1 - 10

\* P = G 1/4 internal

A = G 1/4 external

R = Silenced exhaust to atmosphere

\*\*\* For 6 bar according to DIN VDI 3290 with solenoid for DC

\*\*\* For orders please state voltage and frequency, e.g.: 8466000.9101.23050 for 230V 50Hz or 8466000.9101.02400 for 24V DC

### Solenoid 9101 / 9151 (standard voltages)

DC	AC	
	50Hz	60Hz
24V	24V	-
-	110V	120V
-	230V	220V

### Power consumption

Solenoid	DC	AC	
		Inrush	Holding
9101	8W	15VA	12VA
9151	18W	45VA	35VA

Design according to DIN VDE 0580

Voltage range +/-10%, duty cycle 100%

Protection class according to EN 60529: IP65

Electrical connector according to DIN EN 175301-803 (included)

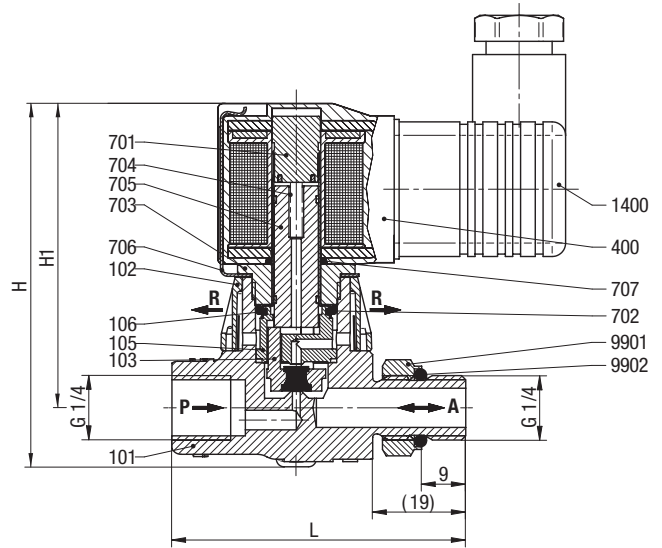
The solenoids are UL listed and CSA approved

**Drawing legend**

Index	Description
101	Valve body
102	Protective cap
*103	Valve plate
105	O-ring
*106	O-ring
400	Solenoid
701	Core tube
702	O-ring
703	Screw piece
*704	Pressure spring
*705	Plunger
706	Spring clip
707	O-ring
1400	Electrical connector
9901	Hexagon nut
9902	Gasket

\* A service kit consists of these individual parts.

**With solenoid 9101**



**Solenoid 9101**

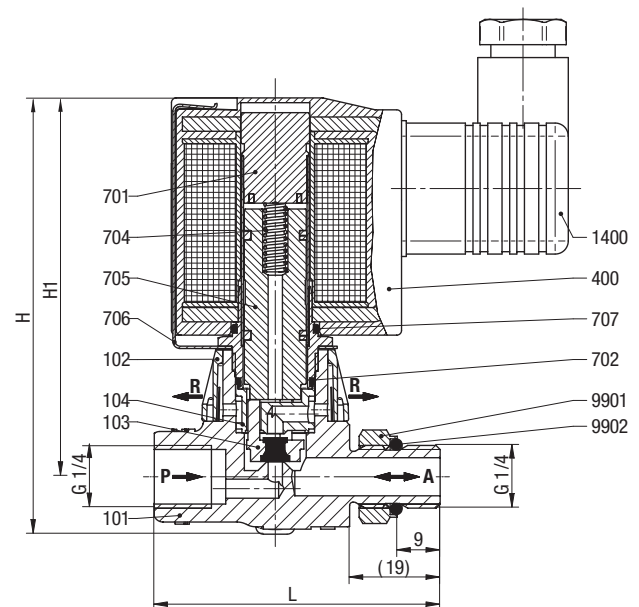
Connection size G	L mm	H mm	H1 mm
1/4	60	73.6	61.5

**Drawing legend**

Index	Description
101	Valve body
102	Protective cap
*103	Valve plate
104	Valve seat
400	Solenoid
701	Core tube
*702	O-ring
*704	Pressure spring
706	Spring clip
707	O-ring
1400	Electrical connector
9901	Hexagon nut
9902	Gasket

\* A service kit consists of these individual parts.

**With solenoid 9151**



**Solenoid 9151**

Connection size G	L mm	H mm	H1 mm
1/4	60	91.0	79.0

Pressure Actuated Valves

**Service kits**

For valves	Part number
8466000	1260613
8468000	1260615

**Further options (valves)**

XXXXX**53**.XXXX Connection P female thread G 1/8,  
connection A male thread G 1/8

**Further options  
(Solenoids for series 84660)**

XXXXXX.**9136** Solenoid in protection class Ⓢ II 2 GD EEx m II T4 T 130 °C,  
with 3 m connection cable

**Further options  
(Solenoids for series 84680)**

XXXXXX.**9191** Solenoid in protection class Ⓢ II 2 GD EEx me II T3 T 140 °C

**Further options on request**

Please turn to page 276 for technical information on our valves.

## Proven solutions for the oil and gas industry

Safe, reliable and cost-effective integrated solutions for actuation control applications:

- » Control of process pneumatic actuators (single or double acting; rotary- and stroke-drive)
- » Control and handling of neutral and aggressive gases and liquids

Typically stainless steel housings and Ex-proof coils, and a broad choice of materials for seals.

**Market-leading product brands: Norgren, Maxseal, Herion, Buschjost, Watson Smith.**



## Valve technology



### Low power high force valves

Compact, low weight Maxseal IC03S solenoid valves, typically suited to applications such as emergency shutdown systems. Low power 2W solenoid.



### Smart position valve controller

Digital Positioner with auto-tune characteristics. High accuracies and speed of response due to different available flow rates.



### Instrument changeover Valves

Maxseal IC04S 1/4" or 1/2" stainless steel direct acting solenoid valve. Offers the offshore and petrochemical industries a uniquely reliable and heavy-duty unit.



### I/P Converters

Watson Smith OEM I/P converters with "Fail Safe" function for robust closed-loop control. Integrated filters for harsh environments.



### Process Control for Hazardous Areas

Direct acting Maxseal SOV valves with position indicator, certified for hazardous area use. Up to 207 bar.



### High Flow Process Solenoid Valves

Piston valves for slightly aggressive gases and liquids, up to 40 bar. Flange connection up to DN50. Cast or stainless steel. Ideal for highly viscous fluids, as well as for vacuum.



### Redundancy system

Includes 2 direct-acting valves and functional plates for redundant control. Ensures safe exhaust and double safety system.



### Stainless steel filter regulators

1/4" and 1/2" Maxseal instrument filter regulators for accurate pressure control with manual or automatic drains.

## 3/2-way valves DN 2 to DN 5

Direct operated poppet valves  
Solenoid actuated  
Connection G 1/4  
Operating pressure: 0 to 18 bar (see technical data)

### Description

Solenoid valve for neutral gases and liquids\*  
Fluid temperature: -25 °C to +80 °C  
Ambient temperature: -25 °C to +80 °C,  
depending on solenoid system  
Mounting position: as required, preferably with solenoid on top

\* With contaminated fluids, upstream installation of a dirt trap is recommended.

### Material

Body: Brass  
Seat seal: NBR  
Internal parts: Steel 1.4104, Brass

### Features

- No differential pressure required, works from 0 bar
- Fast switching times
- Maximum leak rate  $1.33 \cdot 10^{-3}$  mbar-l/s
- For AC solenoid systems with integrated rectifier (40 to 60Hz)
- Valves and solenoids (see solenoid table) with EX approval according to ATEX



### Technical data

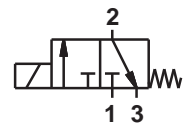
Connection size G	DN mm	kv-Value m <sup>3</sup> /h	Part number* valve	Solenoid group**	Operating pressure bar	Drawing no.
Switching function: normally closed						
1/4	2	7.2	9600210	13B	0 - 10	1
1/4	2	7.2	9600240	13D	0 - 18	1
1/4	3	12.0	9600320	13C	0 - 6	1
1/4	3	12.0	9600340	13D	0 - 14	1
1/4	4	21.0	9601440	16D	0 - 10	1
1/4	5	27.0	9601540	16D	0 - 7	2
Switching function: normally open						
1/4	2	6.0	9602210	13B	0 - 9	3
1/4	3	9.6	9602340	13D	0 - 9	3
1/4	4	18.0	9602440	16D	0 - 6	3

\* When ordering please indicate solenoid, voltage and current type (frequency).

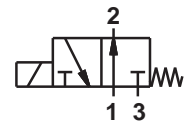
\*\* Please see pages 49 and 50 for technical data and ordering information.

### Accessories

Cable gland protection class EEx e, EEx d (ATEX), Nickel plated brass	Connectors
	
EEx e 0588819 (for solenoids 42xx / 46xx M20 x 1.5)	0570275



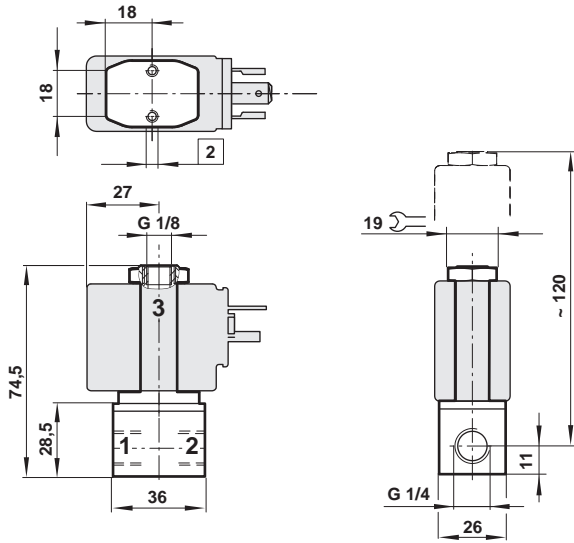
Symbol 1: 3/2 NC



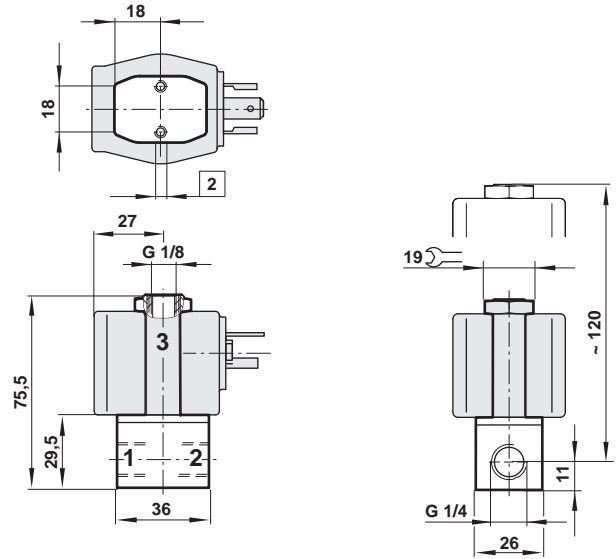
Symbol 2: 3/2 NO

**Dimensional drawings for valves**

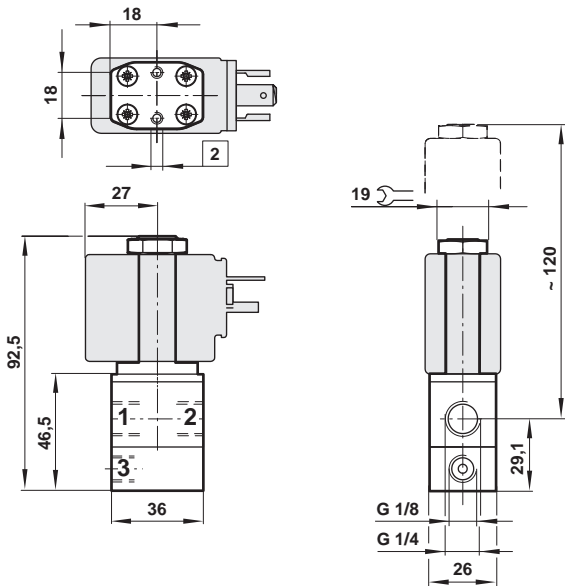
**Drawing 1 \***



**Drawing 2 \***



**Drawing 3 \***



**Drawing legend**

Index	Description
2	M4 x 6

\* Dimensions in mm

The actuating solenoids correspond to those of the 95000 series. You will find them on page 49, the associated dimensions are on page 50.

The electric circuit diagrams are shown on page 52.

**Further options on request**

Please find the safety instructions for the Norgren range on page 318.

Please find an example of the part numbering system applicable to the Norgren range on page 53.

## 3/2 Stainless steel directional control valves DN 2 to DN 6

Direct operated poppet valves  
Solenoid actuated  
Connection G 1/8  
Operating pressure: 0 to 12 bar (see technical data)

### Description

Solenoid valve for aggressive gases and liquids\*  
Flow direction: determined  
Fluid temperature: -10 °C to +120 °C  
Ambient temperature: -10 °C to +60 °C,  
depending on solenoid system  
Mounting position: as required, preferably with solenoid on top

\* With contaminated fluids, upstream installation of a dirt trap is recommended.

### Material

Body: Stainless steel 1.4571  
Seat seal: FPM  
Internal parts: Stainless steel 1.4571

### Features

- No differential pressure required, works from 0 bar
- Fast switching times
- Maximum leak rate  $1.33 \cdot 10^{-3}$  mbar-l/s
- Assembled oil and grease-free
- For AC solenoid systems with integrated rectifier (40 to 60Hz)



### Technical data

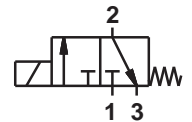
Connection size G	DN mm	kv-Value m³/h	Part number* valve	Solenoid group**	Operating pressure bar	Drawing no.
Switching function: normally closed						
1/8	2	0.11	9610242	13D	0 - 12	1
1/8	3	0.20	9610342	13D	0 - 6	2

\* When ordering please indicate solenoid, voltage and current type (frequency).

\*\* Please see pages 49 and 50 for technical data and ordering information.

### Accessories

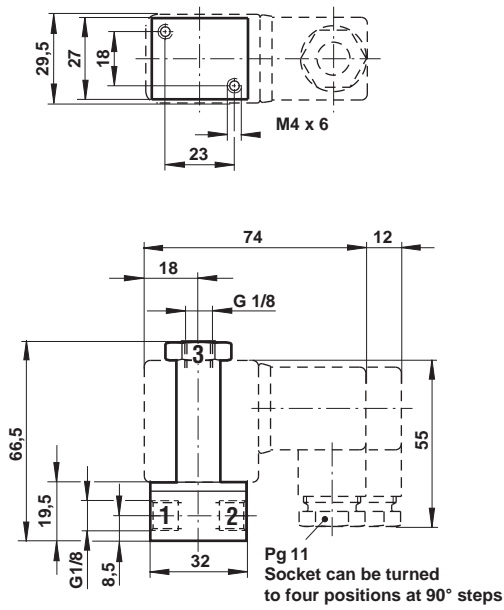
Cable gland protection class EEx e, EEx d (ATEX), Nickel plated brass	Connectors
	
EEx e 0588819 (for solenoids 42xx / 46xx M20 x 1.5)	0570275



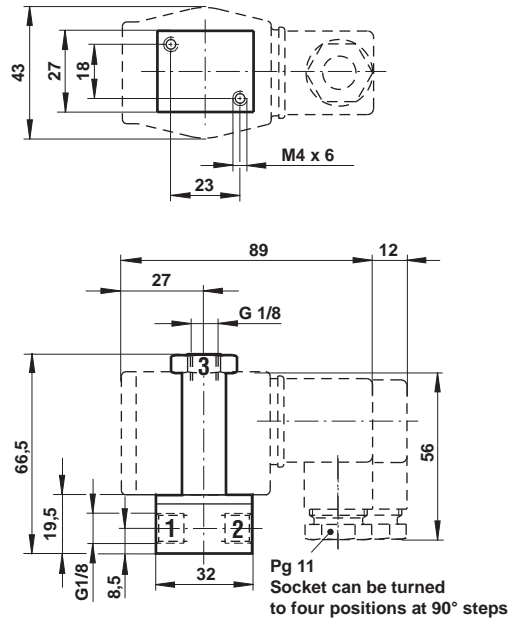
Symbol 1: 3/2 NC

**Dimensional drawings for valves**

**Drawing 1 \***



**Drawing 2 \***



\* Dimensions in mm

The actuating solenoids correspond to those of the 95000 series. You will find them on page 49, the associated dimensions are on page 50.

The electric circuit diagrams are shown on page 52.

**Further options on request**

Please find the safety instructions for the Norgren range on page 318.

Please find an example of the part numbering system applicable to the Norgren range on page 53.



## 3/2-, 5/2- and 5/3-way valves

Indirectly controlled soft seal spool valves  
 Solenoid actuated  
 Port size G 1/4, 1/4 NPT  
 NAMUR Interface  
 Operating pressure: 2 to 8 bar

### Description

NAMUR Interface for filtered, non-lubricated and dry compressed air\*

Operation: solenoid, indirectly controlled  
 Mounting position: as required  
 Flow direction: fixed  
 Nominal size: 6 mm  
 Connection 1: G 1/4  
 Connection 3 and 5: G 1/8  
 Electrical connection: see solenoid table

Temperatures: Valve: -25 °C to +50 °C,  
 Solenoid: see solenoid table

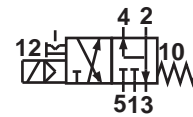
\* Oil recommendation: Shell Hydrol DO 32, ESSO Febis K 32 (as of July 1992) or comparable oils with DVI-values < 8 (DIN 53521) and ISO viscosity class 32-46 (DIN 51519).

### Material

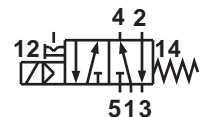
Body: Aluminium anodized  
 Pilot flange: PBT  
 Seals: NBR

### Features

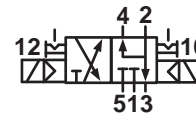
- For single and double operated actuators
- Exhaust air recirculation (3 way function)
- Crossover-free switching, switch-over function guaranteed even with small cross section air supply
- In event of power failure, valve switches to original position (spring-loaded with monostable design)
- Lockable manual override
- Compact design
- Simple design of soft seal spool system
- Easily interchangeable solenoid



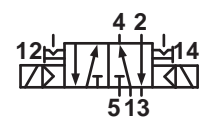
Symbol 1: 3/2



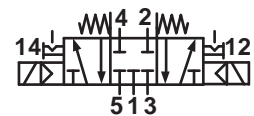
Symbol 2: 5/2



Symbol 3: 3/2



Symbol 4: 5/2



Symbol 5: 5/3


## 3/2, 5/2 and 5/3 directional valves, standard design

5/2-way or 3/2-way function (see conversion instructions page 159)

1	Connection size G		kv-Value m³/h	Part number*	Operation	Operating pressure bar	Drawing no.
	3.5	2.4					
1/4	1/8	Flange	45.0	9710000	Solenoid/Spring	2 - 8	1
1/4	1/8	Flange	45.0	9711000	Solenoid/ Solenoid	2 - 8	2
1/4	1/8	Flange	30.0	9712000	Solenoid/ Solenoid mid position APB	2 - 8	3

\* When ordering please indicate solenoid, voltage and current type (frequency).  
 Valve function: APB = All Ports Blocked

## Solenoid actuators

	Type	Power consumption		Ex-protection categorie	Protection class	Temperature ambient/ fluid °C	Dimensions no.	Circuit diagram no.
		24V DC W	130V AC VA					
	3036	1.6	3.5	-	IP 65 (with connector) DIN EN 175301-803 form A *	-40 ... +50	5	1

Standard voltages 24V DC, 230V AC. Other voltages on request. Design according to VDE 0580, EN 50014/50028. 100% duty cycle.

\* Connector not included: required connector for DC: type 0680003 Form B, 0570275 Form A.

## 3/2, 5/2 and 5/3 directional valves for minimal electrical power, including EEx i



5/2-way or 3/2-way function (see conversion instructions page 159)

1	Connection size G		Type *	Operation	Operating pressure bar	Flow l/min	Drawing no.
	3.5	2.4					
1/4	1/8	Flange	9710002	Solenoid/Spring	2 - 8	750	1
1/4	1/8	Flange	9712002	Solenoid/ Solenoid mid position APB	2 - 8	500	2

\* When ordering please indicate solenoid, voltage and current type (frequency).

Valve function: APB = All Ports Blocked

## Solenoid actuators



	Type	Power consumption		Rated current		Ex-protection categorie	Protection class	Temperature ambient/ fluid °C	Dimensions no.	Circuit diagram no.
		24V DC W	230V AC VA	24V DC mA	230V AC VA					
	3050	1.7	-	-	-	-	IP 65 (with connector) DIN EN 175301-803 form B **	-40 ... +50	4	1
	3034	0.7	0.7 *	-	-	-	IP 65 (with connector) DIN EN 175301-803 form A **	-40 ... +50	5	1

Standard voltages 24V DC, 230V AC. Other voltages on request. Design according to VDE 0580, EN 50014/50028. 100% duty cycle.

\* Valves can be operated with DC only. For 230V AC application please use 206V DC coil together with rectifier plug 0663303.

\*\* Connector not included: required connector for DC: type 0680003 Form B, 0570275 Form A.

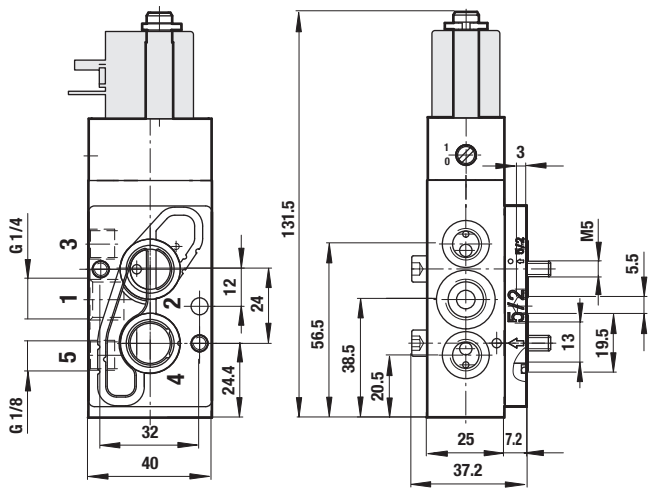
## Accessories

Silencer	Connectors
	
0014500 (G 1/8)*	0570275 form A
	0663303 with rectifier
	0680003 form B

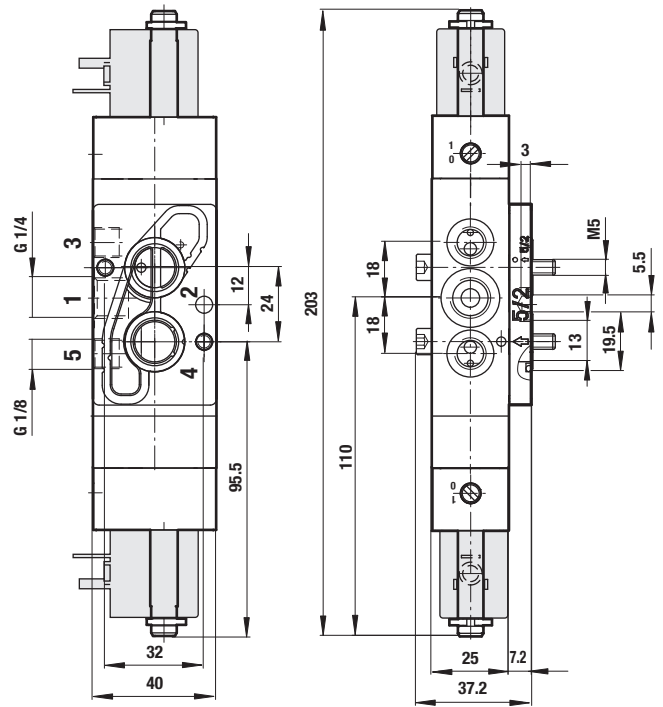
\* For indoor use.

**Dimensional drawings for valves**

**Drawing 1 and 2 \***

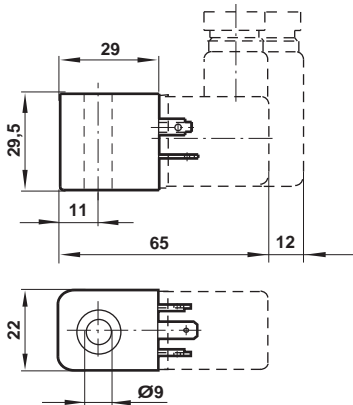


**Drawing 3 \***

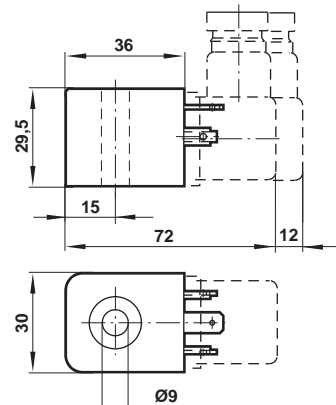


**Dimensional drawings for solenoid operators**

**Drawing 4 \***



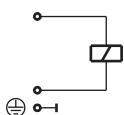
**Drawing 5 \***



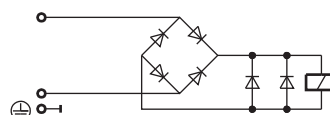
\* Dimensions in mm

**Circuit diagrams**

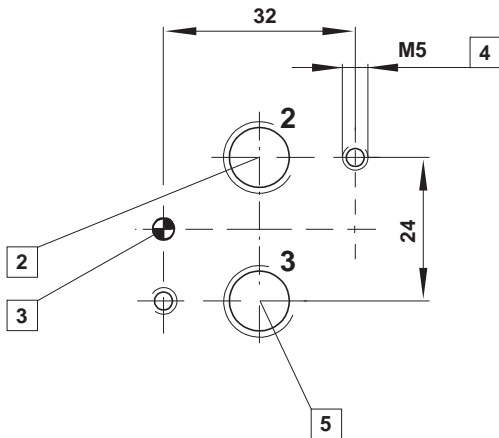
**Circuit diagram 1**



**Circuit diagram 2**



## NAMUR hole pattern \*



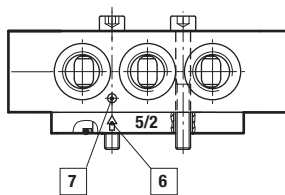
\* Dimensions in mm

## Drawing legend

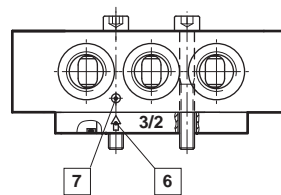
Index	Description
2	Port 2 (A)
3	Coated screw
4	M5 x 10
5	Port 3 (R)

## Conversion instructions of 5/2 into 3/2-way function

### 5/2-way function (original mode of supply)



### 3/2-way function



## Drawing legend

Index	Description
6	Arrow
7	Marker

3/2 or 5/2-way function can be achieved by swapping enclosed adaptor plates. Make sure Marker and Arrow match as shown on above drawing. Original mode of supply: 5/2 function.

## Further options on request

Please find the safety instructions for the Norgren range on page 318.

Please find an example of the part numbering system applicable to the Norgren range on page 53.



## » PILOT VALVES

### FOR THE CHEMICAL AND PROCESS INDUSTRY



**Norgren – incorporating Herion – has decades of experience with chemical and related process technologies. Norgren provides a comprehensive product range. Our highly flexible manufacturing processes allow fast and safe realization of individual solutions, tailored to specific customer requirements. These competitive advantages are perfectly suited to help our customers maintain and extend their position in the market.**

#### » STANDARD VERSION

Indirectly controlled soft seal spool valves.  
3/2-, 5/2- and 5/3 directional valves

- » For single and double operated actuators
- » Easily interchangeable solenoids IP65, ATEX
- » Inline and NAMUR



26230 Inline/NAMUR  
26360 Inline/NAMUR



97100 NAMUR

97100 Inline

#### » CHEMICAL VERSION

Directly and indirectly controlled soft seal spool valves and poppet valves.  
3/2-, 5/2- and 5/3 directional valves

- » For single and double operated actuators
- » Suitable for outdoor installation
- » Modular solenoid system
- » International Ex-approvals
- » SIL 4-approval according IEC 61508
- » Body material stainless steel, brass and aluminium



97105 Inline/NAMUR



98015/98025

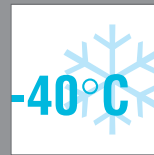


24010/24011

# Chemical and Process Industries



Stainless Steel



Pressure Actuated Valves

**Norgren stainless steel solenoids and valves are specifically designed for the chemical and petrochemical industries – especially offshore. The products meet the highest safety standards, even in the toughest environmental conditions.**

## » STAINLESS STEEL VERSION

Directly and indirectly controlled soft seal spool valves and poppet valves.  
2/2-, 3/2-, 5/2- and 5/3 directional valves

- » Stainless steel solenoid 48xx
- » SIL 4-approval according IEC 61508
- » Protection class: EEx mbd IIC T4/T6  
EEx mbe IIC T4/T6
- » Category: II 2 GD



24011



97105 Inline/NAMUR



98015/98025



## 2/2-way valves DN 15 to DN 25

For neutral gases and liquids  
 Pressure actuated by external fluid  
 Seat valves  
 Internal thread G 1/2 to G 1 or 1/2" NPT to 1" NPT  
 Operating pressure: see technical data

### Description (standard valve)

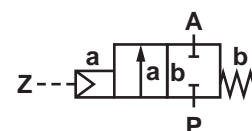
Switching function: normally closed  
 Flow direction: determined  
 Mounting position: as required

### Process fluid characteristics / Valve material

Fluid temperature: -10 °C up to max. +180 °C  
 Ambient temperature: -10 °C up to max. +60 °C  
 Body: Dezincification resistant brass  
 Seat seal: PTFE  
 Internal parts: Brass, Stainless steel  
 Spindle sealing: PTFE / FPM, self-adjusting

### Pilot fluid characteristics / Actuator material

Pilot connection: G 1/4 or 1/4" NPT, respectively  
 Pilot fluid: neutral gases  
 Fluid temperature: max. +60 °C  
 Body: Polyamid 66 with 30% fibre glass  
 Seal: NBR  
 Internal parts: Brass, Stainless steel



### Features

- Optical position indicator is standard
- Damped closing (valve closes against flow direction)
- Suitable for contaminated process fluids
- Suitable for vacuum up to max. 90%
- Reversed flow direction optional
- High flow rate
- Optional pressure actuation by liquid pilot fluids

### Technical data actuator Ø 50 mm

Connection size G	DN mm	kv-Value m <sup>3</sup> /h	Part number	Operating pressure bar*				
				PTFE	Normally open**	Position indicator: on / off with micro switches	NAMUR adapter plate	Position indicator to NAMUR EN 50227
				00	01	23	50	58
1/2	15	4.8	84722XX.0000.00000	0 - 16	0 - 16	0 - 16	0 - 16	0 - 16
3/4	20	10.0	84723XX.0000.00000	0 - 8	0 - 8	0 - 8	0 - 8	0 - 8
1	25	14.0	84724XX.0000.00000	0 - 5	0 - 5	0 - 5	0 - 5	0 - 5

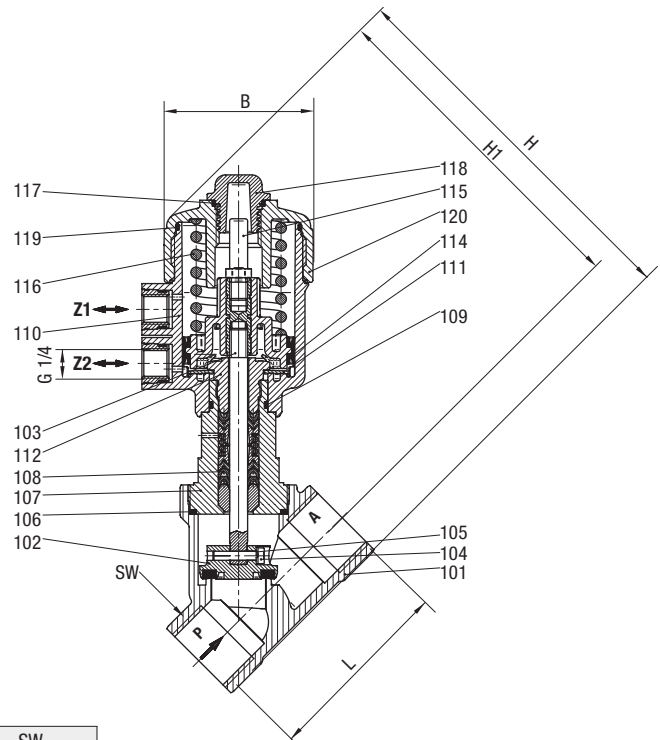
\* Pilot pressure 3.5 - 10 bar, pilot connection Z2

\*\* Pilot pressure 1 - 10 bar, pilot connection Z1

## Drawing legend

Index	Description
101	Valve body
*102	Valve plate
103	Valve spindle assembly
104	Allen head screw
105	Spring washer
*106	Gasket
107	Screw piece
*108	Spindle sealing
*109	O-ring
110	Bottom of control head housing
*111	Cup spring
112	Screw piece
*114	Piston seal
115	Signal pin
*116	Pressure spring
*117	O-ring
118	End cap
*119	O-ring
120	Control head housing cover

\* A service kit consists of these individual parts.



Connection size G	L mm	B mm	H mm	H1 mm	SW mm
1/2	65	66	154	140.5	27
3/4	75	66	160	144.5	32
1	90	66	171	150.5	41

## Service kits

For valves	Part number
8472200	1260318
8472300	1260566
8472400	1260568

## Further options (valves)

XXXX08.XXXX Double acting; 4/2 or 5/2-way pilot valve required

## Further options on request

- Seal materials: NBR, FPM, EPDM
- Stroke limiter
- Silencer
- Electrical position indicator with electromagnetic induction sensors

## Accessories

3/2-way pilot valves 84660 / 84680, page 148

## ⚠ Note:

Order service kit 1264287 if these valves are to be used in Zone 1/2 or 21/22 hazardous areas. This kit includes an additional instruction plate, a declaration of conformity and a dust filter. The maximum permissible fluid temperature is reduced to +85 °C.

Please turn to page 276 for technical information on our valves.



## 3/2-way valves G 1/2 to G 2

For neutral gases and liquids  
 Pressure actuated by external fluid  
 Seat valves  
 Operating pressure: 0 to 16 (see technical data)

### Description (standard valve)

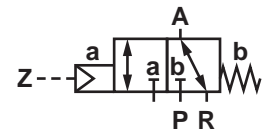
Valve for air, water, oil, hot water and steam up to 400 mm<sup>2</sup>/s (cSt)  
 Switching function: normally closed from P to A,  
 opened from P to A by pilot pressure  
 Flow direction: determined  
 Mounting position: as required, preferably with actuator vertical on top

### Process fluid characteristics/Valve material

Fluid temperature: -10 °C up to max. +180 °C  
 Ambient temperature: -10 °C up to max. +60 °C  
 Body: Gun metal  
 Seat seal: PTFE  
 Internal parts: Brass, Stainless steel  
 Spindle sealing: PTFE / EPDM

### Pilot fluid characteristics/Actuator material

Pilot connection: G 1/4  
 Pilot fluid: neutral gases  
 Fluid temperature: max. +60 °C  
 Body: Aluminium  
 Seal: NBR  
 Internal parts: Brass, Stainless steel



### Features

- Suitable for steam
- Can be used as Y-pattern/selector valve (pressure connected to A)
- High flow rate

### Technical data

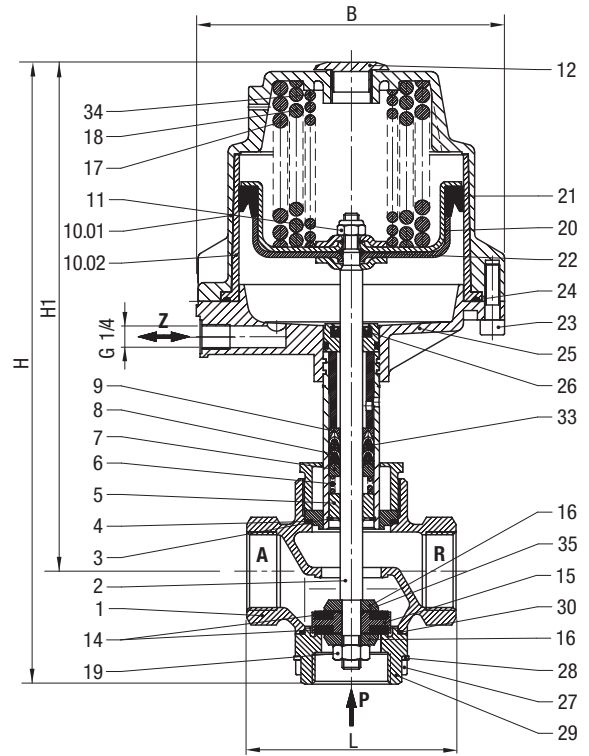
Connection size G	DN mm	kv-Value m <sup>3</sup> /h		Part number	Operating pressure in bar with gases or liquids up to 400 mm <sup>2</sup> /s (cSt) *			
		Way P -> A	Way A -> R		PTFE	Optical position indicator	Electrical position indicator: on / off with micro switches	Electrical position indicator Ex de IIC T6
					<b>00</b>	<b>55</b>	<b>57</b>	<b>64</b>
1/2	15	5.8	3.0	83252XX.0000.00000	0 - 16	0 - 16	0 - 16	0 - 16
3/4	20	11.5	7.0	83253XX.0000.00000	0 - 16	0 - 16	0 - 16	0 - 16
1	25	18.0	12.5	83254XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 10
1 1/4	32	25.0	15.0	83255XX.0000.00000	0 - 16	0 - 16	0 - 16	0 - 16
1 1/2	40	39.0	27.0	83256XX.0000.00000	0 - 14	0 - 14	0 - 14	0 - 14
2	50	64.0	43.0	83257XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 10

\* Pilot pressure 5.5 - 7 bar

**Drawing legend**

Index	Description
1	Valve body
2	Spindle assembly
3	Locking ring
4	Flat seal ring
5	Bushing
6	Pressure spring
7	Supporting ring
8	Sleeve
9	Compression ring
10.01	Cover
10.02	Piston bushing
11	Lock nut
12	Protective cap
14	Gasket
15	Valve plate
16	Valve plate
17	Pressure spring
18	Pressure spring
19	Lock nut with spring
20	Piston assembly
21	Lip seal
22	O-ring
23	Screw
24	O-ring
25	Bottom assembly
26	Lip seal
27	Screw
28	Spring washer
29	Seat flange
30	Gasket
33	Sleeve
34	Pressure spring *
35	O-ring

\* For DN 50 only



Pressure Actuated Valves

Connection size G	L mm	B mm	H mm	H1 mm
1/2	67	96	228.0	191
3/4	80	96	234.0	195
1	95	96	236.0	195
1 1/4	112	164	333.5	273
1 1/2	132	164	334.5	273
2	160	164	345.5	277

**Further options on request**

**Accessories**

3/2-way pilot valves 84660 / 84680, page 148

Please turn to page 276 for technical information on our valves.

## 2/2-way valves DN 15 to DN 50

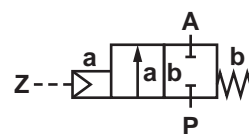
For aggressive gases and liquids  
 Pressure actuated by external fluid  
 Seat valves  
 Internal thread G 1/2 to G 2 or 1/2" NPT to 2" NPT  
 Operation pressure: 0 - 16 bar (see technical data)

### Description (standard valve)

Switching function: normally closed  
 Flow direction: determined  
 Mounting position: as required

### Process fluid characteristics / Valve material

Fluid temperature: -10 °C up to max. +180 °C  
 Ambient temperature: -10 °C up to max. +60 °C  
 Body / Valve seat: Stainless steel  
 Seat seal: PTFE  
 Internal parts: Stainless steel  
 Spindle sealing: PTFE, FPM self-adjusting



### Pilot fluid characteristics / Actuator material

Pilot connection: G 1/4 or 1/4" NPT, respectively  
 Pilot fluid: neutral gases  
 Fluid temperature: max. +60 °C  
 Actuator: Body: Stainless steel, Aluminium  
 Bottom: WEMA-Kor coated  
 Seal: NBR  
 Internal parts: Coated steel

### Features

- Suitable for contaminated process fluids
- High flow rate
- For robust industry applications
- Damped closing (valve closes against flow direction)
- Suitable for vacuum up to max. 90%

### Technical data

Connection size G	DN mm	kv-Value m³/h	Part number	Operating pressure bar*				
				PTFE	Normally open**	Electrical position indicator: 2 switches, Ex-protected	Electrical position indicator: on / off with micro switches	Stainless steel actuator for fluid temperature +200 °C
				<b>00</b>	<b>01</b>	<b>40</b>	<b>41</b>	<b>60</b>
Actuator Ø 70 mm								
1/2	15	4.8	82382XX.0000.00000	0 - 16	0 - 16	0 - 16	0 - 16	0 - 16
3/4	20	10.0	82383XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10
1	25	14.0	82384XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10
1 1/4	32	23.0	82385XX.0000.00000	0 - 7	0 - 7	0 - 7	0 - 7	0 - 7
1 1/2	40	30.0	82386XX.0000.00000	0 - 4.5	0 - 4.5	0 - 4.5	0 - 4.5	0 - 4.5
2	50	37.0	82387XX.0000.00000	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3
Actuator Ø 125 mm								
1 1/4	32	27.0	82485XX.0000.00000	0 - 16	0 - 16	0 - 16	0 - 16	0 - 16
1 1/2	40	37.0	82486XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10
2	50	53.0	82487XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10

\* Pilot pressure 3.5 - 8 bar

\*\* Pilot pressure 1 - 6 bar

**Drawing legend**

Index	Description
101	Valve body
*102	Valve spindle assembly
*103	Gasket
104	Screw piece
*105	Pressure spring
*106	Spindle sealing
107	Spacer sleeve
*108	Sleeve bearing
109	Nut
110	Bottom of control head housing
*111	O-ring
*112	FPM lip seal
113	Round plate
*114	Lip seal
115	Round plate
*116	Seal-Lock® nut
117	Control head housing
*118	Pressure spring - for G 1 and G 2 only
*119	Pressure spring
120	Hexagon screw
121	Plug

\* A service kit consists of these individual parts.

Connection size G	L mm	B mm	H mm	H1 mm
<b>Actuator Ø 70 mm</b>				
1/2	65	89.5	154.0	140.5
3/4	75	89.5	160.0	144.0
1	90	89.5	171.0	150.5
1 1/4	110	89.5	186.0	161.0
1 1/2	120	89.5	190.0	162.5
2	150	89.5	206.0	171.0
<b>Actuator Ø 125 mm</b>				
1 1/4	110	163.0	250.0	225.0
1 1/2	120	163.0	255.0	227.5
2	150	163.0	270.0	235.0

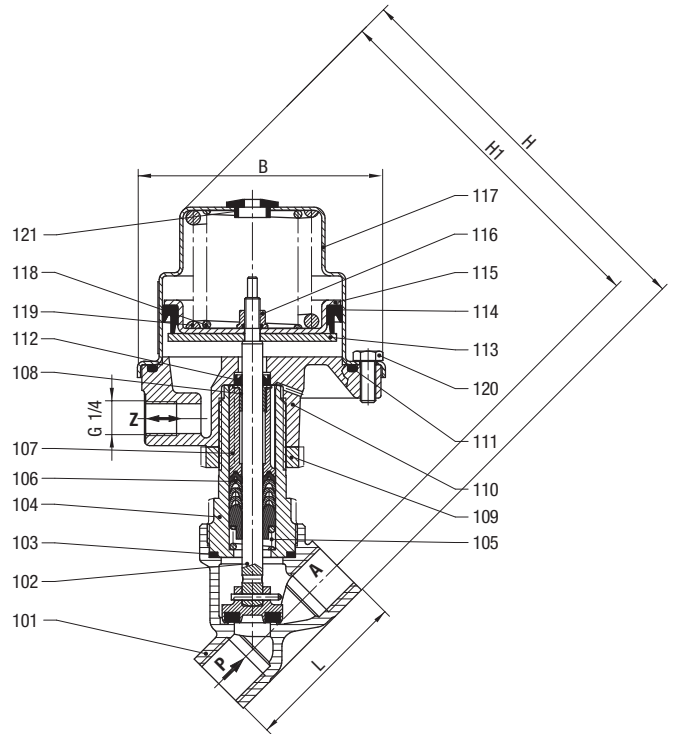
**Service kits**

For valves	Part number
<b>Actuator Ø 70 mm</b>	
8238200	1249651
8238300	1249652
8238400	1249653
8238500	1249654
8238600	1249655
8238700	1249656
<b>Actuator Ø 125 mm</b>	
8248500	1249657
8248600	1249658
8248700	1249339

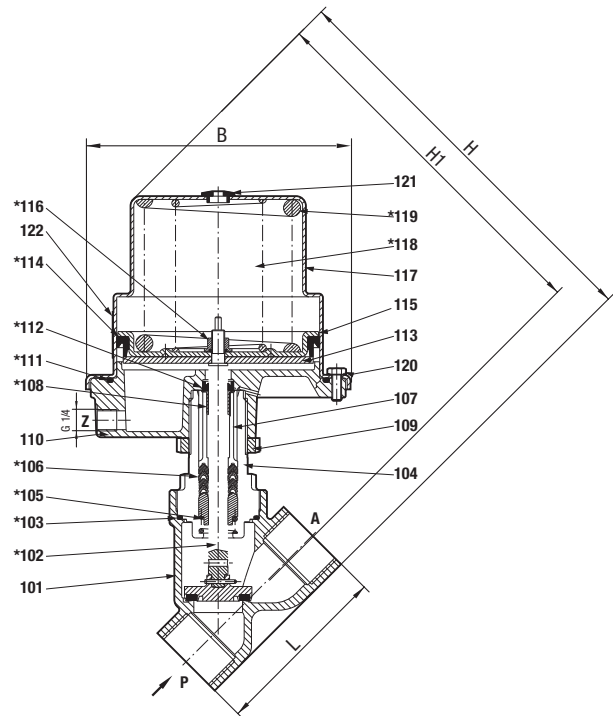
**Further options (valves)**

XXXXX**03**.XXXX Seal: FPM maximum temperature +180 °C  
 XXXXX**22**.XXXX Operating pressure G 1/2: 25 bar, G 3/4: 16 bar  
 XXXXX**52**.XXXX Optical position indicator  
 XXXXX**80**.XXXX Spindle seal with stainless steel

**Actuator Ø 70 mm**



**Actuator Ø 125 mm**



**Further options on request**

**Accessories**

3/2-way pilot valves 84660 / 84680, page 148

Please turn to page 276 for technical information on our valves.

## 2/2-way valves DN 2 to DN 10

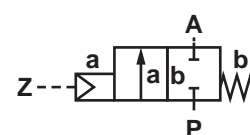
For aggressive gases and liquids to 600 mm<sup>2</sup>/s (cSt)  
 Pressure actuated by external fluid  
 Seat valves  
 Internal thread G 1/8 to G 1/2  
 Operating pressure: maximum 25 bar (see technical data)

### Description (standard valve)

Switching function: normally closed  
 Flow direction: determined  
 Mounting position: as required

### Process fluid characteristics / Valve material

Fluid temperature: -10 °C up to max. +90 °C  
 Ambient temperature: -10 °C up to max. +60 °C  
 Body: Stainless steel (1.4408)  
 Seat seal: PTFE  
 Internal parts: Stainless steel  
 Spindle sealing: PTFE / NBR, self-adjusting



### Pilot fluid characteristics / Actuator material

Pilot fluid: neutral gases  
 Fluid temperature: max. +60 °C  
 Body: Stainless steel (1.4404)  
 Seal: NBR  
 Internal parts: Stainless steel, Brass  
 Pilot connection: M5  
 Pilot pressure: 4-10 bar

### Features

- Small, compact 30 mm miniature actuator
- Actuator can be swiveled 360°
- Suitable for contaminated process fluids
- Suitable for vacuum up to max. 90%
- Reversed flow direction optional
- High flow rate
- Valve operates without pressure differential
- M5 mounting thread as standard

### Technical data actuator Ø 70 mm

Connection size G	DN mm	kv-Value m <sup>3</sup> /h	Part number	Operating pressure bar PTFE*
1/8	2.0	0.12	8419800.0000.00000	0 - 25
1/4	4.0	0.35	8419020.0000.00000	0 - 25
3/8	6.0	0.60	8419140.0000.00000	0 - 20
1/2	10.0	1.80	8419260.0000.00000	0 - 8

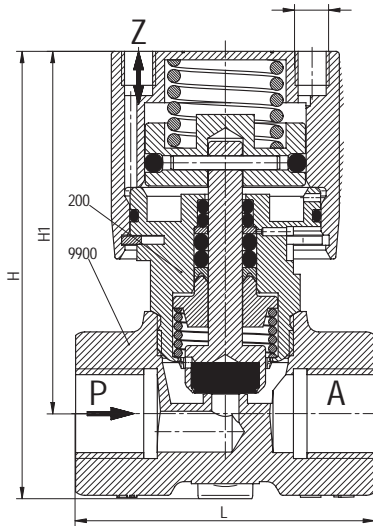
\* Pilot pressure 4 - 10 bar

## Drawing legend

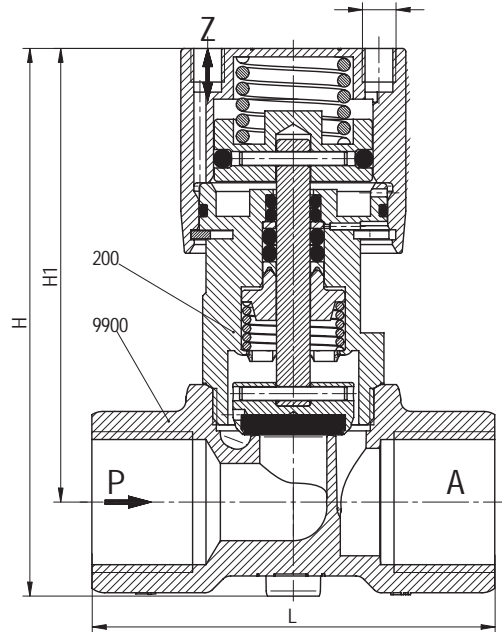
Index	Description
200	Actuator
9900	Valve body

\* A service kit consists of these individual parts.

### G 1/8 - G 3/8



### G 1/2



Connection size G	L mm	H mm	H1 mm	B* mm
1/8	44	65	53	33
1/4	44	65	53	33
3/8	44	65	53	33
1/2	60	81	67	33

\* B = maximum width

## Further options on request

- Normally open
- Seat seal: FPM
- Seat seal: EPDM
- Double acting actuation
- Oxygen version
- Higher operating pressure

Please turn to page 276 for technical information on our valves.

## 2/2-way valves DN 15 to DN 80

For aggressive gases and liquids  
 Pressure actuated by external fluid  
 Seat valves  
 Internal thread G 1/2 to G 3 or 1/2" NPT to 3" NPT  
 Operating pressure: 0 - 20 bar (see technical data)

### Description (standard valve)

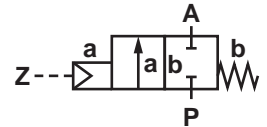
Switching function: normally closed  
 Flow direction: determined  
 Mounting position: as required

### Process fluid characteristics / Valve material

Fluid temperature: -10 °C up to max. +180 °C  
 Ambient temperature: -10 °C up to max. +60 °C  
 Body: Stainless steel  
 Seat seal: PTFE  
 Internal parts: Stainless steel  
 Spindle sealing: PTFE / FPM, self-adjusting

### Pilot fluid characteristics / Actuator material

Pilot fluid: neutral gases  
 Fluid temperature: max. +60 °C  
 Body: Polyamid 66 with 30% fibre glass  
 Seal: NBR  
 Internal parts: Brass, Stainless steel



### Features

- Easy conversion into "normally open" or "double-acting" without tool (actuator Ø 70 mm only)
- Optical position indicator is standard
- Damped closing (valve closes against flow direction)
- Suitable for contaminated process fluids
- Suitable for vacuum up to max. 90% (actuator Ø 70 mm only)
- Reversed flow direction optional
- High flow rate
- Optional pressure actuation by liquid pilot fluids

### Technical data actuator Ø 70 mm

Connection size G	DN mm	kv-Value m³/h	Part number	Operating pressure bar*				
				PTFE <b>00</b>	Normally open** <b>01</b>	Position indicator: on / off with micro switches <b>23</b>	NAMUR adapter plate <b>50</b>	Position indicator to NAMUR EN 50227 <b>58</b>
1/2	15	4.8	84522 <b>XX</b> .0000. <b>00000</b>	0 - 16	0 - 16	0 - 16	0 - 16	0 - 16
3/4	20	10.0	84523 <b>XX</b> .0000. <b>00000</b>	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10
1	25	14.0	84524 <b>XX</b> .0000. <b>00000</b>	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10
1 1/4	32	23.0	84525 <b>XX</b> .0000. <b>00000</b>	0 - 7	0 - 7	0 - 7	0 - 7	0 - 7
1 1/2	40	30.0	84526 <b>XX</b> .0000. <b>00000</b>	0 - 4.5	0 - 4.5	0 - 4.5	0 - 4.5	0 - 4.5
2	50	37.0	84527 <b>XX</b> .0000. <b>00000</b>	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3

\* Pilot pressure 3.5 - 10 bar, pilot connection Z2

\*\* Pilot pressure 1 - 10 bar, pilot connection Z1

## Technical data actuator Ø 120 mm

Connection size G	DN mm	kv-Value m³/h	Part number	Operating pressure bar			
				PTFE	Normally open*	Position indicator: 2 switches, IP 65	Position indicator to NAMUR EN 50227
				80	81	83	88
1 1/4	32	23.0	84525XX.0000.00000	0 - 20	0 - 20	0 - 20	0 - 20
1 1/2	40	41.0	84526XX.0000.00000	0 - 12	0 - 12	0 - 10	0 - 10
2	50	70.0	84527XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 10
2 1/2	65	107.0	84528XX.0000.00000	0 - 7	0 - 7	0 - 7	0 - 7
3	80	157.0	84529XX.0000.00000	0 - 5	0 - 5	0 - 5	0 - 5

\* 8X = Pilot pressure 5.0 - 7 bar

81= Pilot pressure 1.0 - 7 bar

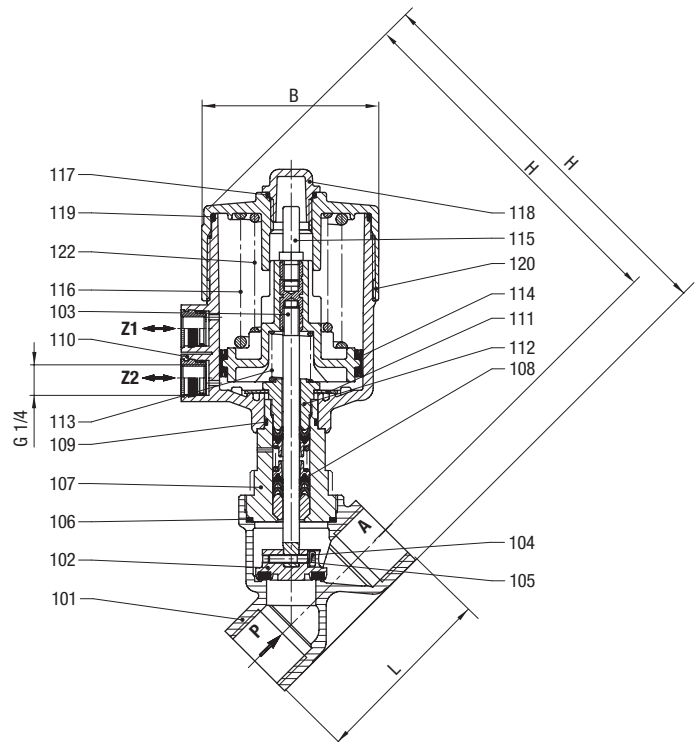
## Drawing legend

Index	Description
101	Valve body
*102	Valve plate
103	Valve spindle assembly
104	Allen head screw
105	Spring washer
*106	Gasket
107	Screw piece
*108	Spindle sealing
*109	O-ring
110	Bottom of control head housing
*111	Cup spring
112	Screw piece
*113	Pressure spring
*114	Piston seal
115	Signal pin
*116	Pressure spring
117	O-ring
118	End cap
*119	O-ring
120	Control head housing cover
*122	Pressure spring

\* A service kit consists of these individual parts.

Connection size G	L mm	B mm	H mm	H1 mm
1/2	65	89.5	177.5	164.0
3/4	75	89.5	184.0	168.0
1	90	89.5	194.5	174.0
1 1/4	110	89.5	209.5	184.5
1 1/2	120	89.5	208.5	186.0
2	150	89.5	229.5	194.5

## Actuator Ø 70 mm





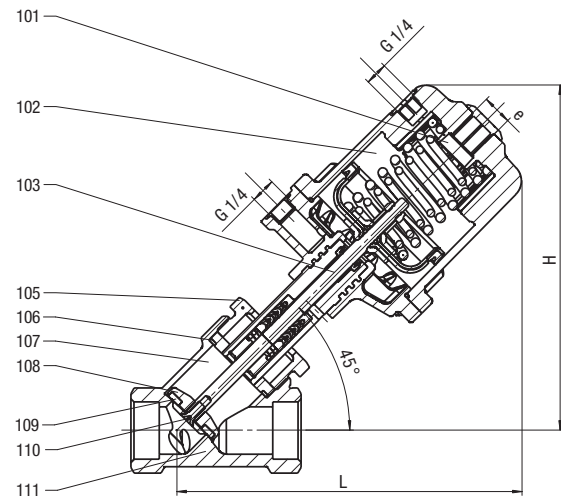
## Drawing legend

Index	Description
101	Valve body
102	Actuator
103	Valve spindle assembly
105	Nut
106	Gasket
108	Valve plate
109	Seat seal
110	Nut
111	Valve body

Connection size G	L mm	H mm
1 1/4	287	287
1 1/2	293	293
2	9301	301
2 1/2	313	313
3	330	330

\* B = maximum width

## Actuator Ø 120 mm



## Service kits actuator Ø 70 mm

For valves	Part number
8452200	1256700
8452300	1256701
8452400	1256702
8452500	1256703
8452600	1256704
8452700	1256705

## Further options (valves)

XXXX08.XXXX Double acting; 4/2 or 5/2-way pilot valve required  
 XXXX22.XXXX Higher operating pressure (actuator Ø 70 mm only)

## Further options on request

- Seal materials: NBR, FPM, EPDM
- Stroke limiter
- Silencer
- Electrical position indicator with proximity switch
- DIN or ISO welded ends

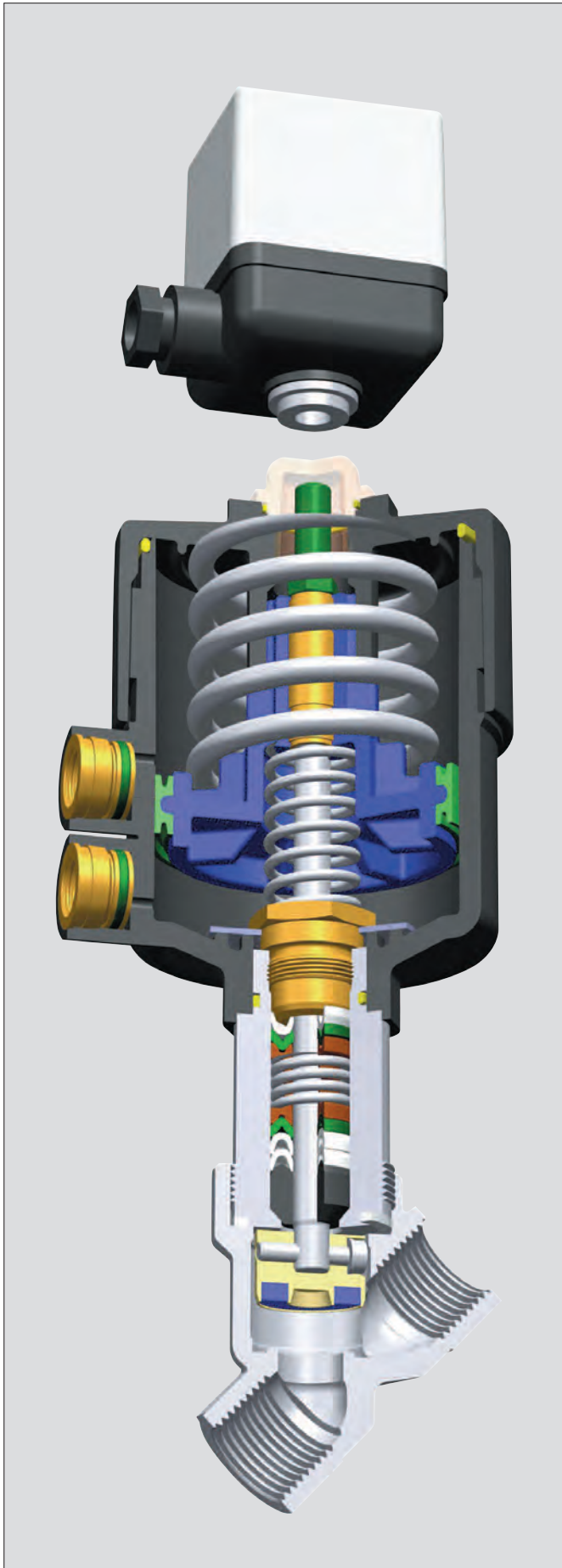
## Accessories

3/2-way pilot valves 84660 / 84680, page 148

## Note:

Order service kit 1264287 if these valves are to be used in Zone 1/2 or 21/22 hazardous areas. This kit includes an additional instruction plate, a declaration of conformity and a dust filter. The maximum permissible fluid temperature is reduced to +85 °C.

Please turn to page 276 for technical information on our valves.



Pressure Actuated Valves

## 2/2-way valves DN 15 to DN 50

For aggressive gases and liquids  
 Pressure actuated by external fluid  
 Seat valves  
 Connection DIN 11850 or ISO-welded ends  
 Operating pressure: 0 - 16 bar (see technical data)

### Description (standard valve)

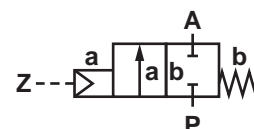
Switching function: normally closed  
 Flow direction: determined  
 Mounting position: as required

### Process fluid characteristics / Valve material

Fluid temperature: -10 °C up to max. +180 °C  
 Ambient temperature: -10 °C up to max. +60 °C  
 Body: Stainless steel (1.4581)  
 Seat seal: PTFE  
 Internal parts: Stainless steel  
 Spindle sealing: PTFE / FPM, self-adjusting

### Pilot fluid characteristics / Actuator material

Pilot fluid: neutral gases  
 Fluid temperature: max. +60 °C  
 Body: Polyamid 66 with 30% fibre glass  
 Seal: NBR  
 Internal parts: Brass, Stainless steel



### Features

- Easy conversion into "normally open" or "double-acting" without tools
- Optical position indicator is standard
- Damped closing (valve closes against flow direction)
- Suitable for contaminated process fluids
- Suitable for vacuum up to max. 90%
- Reversed flow direction optional
- High flow rate
- With or without mounted pilot valve
- Optional pressure actuation by liquid pilot fluids

### Technical data actuator Ø 70 mm

Connection size according to DIN 11850	DN mm	kv-Value m <sup>3</sup> /h	Part number	Operating pressure bar*				
				PTFE	Normally open**	Position indicator: on / off with micro switches	NAMUR adapter plate	Position indicator to NAMUR EN 50227
				00	01	23	50	58
Series 1	15	4.8	84542 <b>XX</b> .0000. <b>00000</b>	0 - 16	0 - 16	0 - 16	0 - 16	0 - 16
Series 1	20	10.0	84543 <b>XX</b> .0000. <b>00000</b>	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10
Series 2	25	14.0	84544 <b>XX</b> .0000. <b>00000</b>	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10
Series 2	32	23.0	84545 <b>XX</b> .0000. <b>00000</b>	0 - 7	0 - 7	0 - 7	0 - 7	0 - 7
Series 2	40	30.0	84546 <b>XX</b> .0000. <b>00000</b>	0 - 4.5	0 - 4.5	0 - 4.5	0 - 4.5	0 - 4.5
Series 3	50	37.0	84547 <b>XX</b> .0000. <b>00000</b>	0 - 3.0	0 - 3.0	0 - 3.0	0 - 3.0	0 - 3.0

\* Pilot pressure 3.5 - 10 bar, pilot connection Z2

\*\* Pilot pressure 1 - 10 bar, pilot connection Z1

Connection size ISO	DN mm	kv-Value m³/h	Part number	Operating pressure bar*				
				PTFE 00	Normally open** 01	Position indicator: 2 switches, IP 65 23	NAMUR adapter plate 50	Position indicator to NAMUR EN 50227 58
ISO	15	4.8	84552XX.0000.00000	0 - 16	0 - 16	0 - 16	0 - 16	0 - 16
ISO	20	10.0	84553XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10
ISO	25	14.0	84554XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10
ISO	32	23.0	84555XX.0000.00000	0 - 7	0 - 7	0 - 7	0 - 7	0 - 7
ISO	40	30.0	84556XX.0000.00000	0 - 4.5	0 - 4.5	0 - 4.5	0 - 4.5	0 - 4.5
ISO	50	37.0	84557XX.0000.00000	0 - 3.0	0 - 3.0	0 - 3.0	0 - 3.0	0 - 3.0

\* Pilot pressure 3.5 - 10 bar, pilot connection Z2

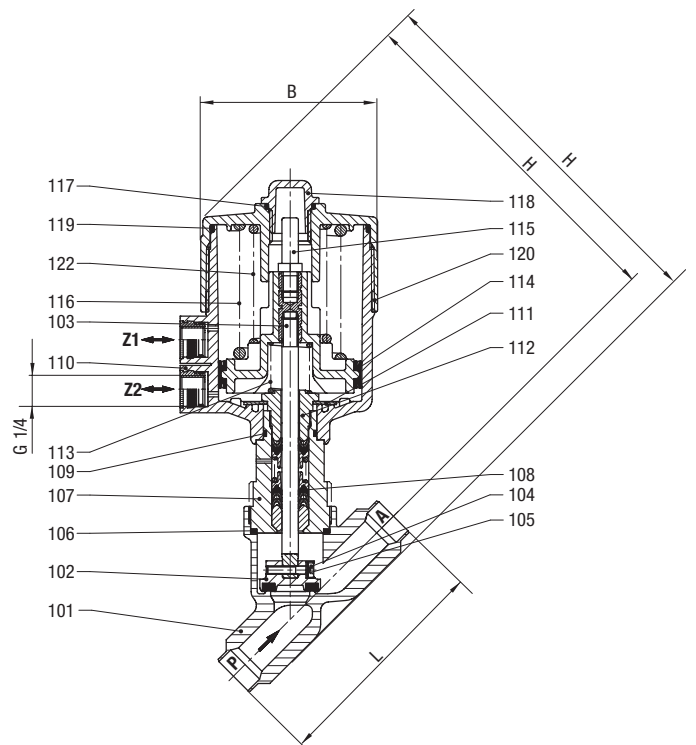
\*\* Pilot pressure 1 - 10 bar, pilot connection Z1

## Drawing legend

Index	Description
101	Valve body
*102	Valve plate
103	Valve spindle assembly
104	Allen head screw
105	Spring washer
*106	Gasket
107	Screw piece
*108	Spindle sealing
*109	O-ring
110	Bottom of control head housing
*111	Cup spring
112	Screw piece
*113	Pressure spring
*114	Piston seal
115	Signal pin
*116	Pressure spring
117	O-ring
118	End cap
*119	O-ring
120	Control head housing cover
*122	Pressure spring

\* A service kit consists of these individual parts.

Connection size DN	L mm	B mm	H mm	H1 mm
15	100	89.5	172.0	163.0
20	110	89.5	178.5	167.5
25	120	89.5	187.5	173.0
32	143	89.5	201.5	184.0
40	160	89.5	205.5	185.0
50	181	89.5	220.5	193.5



## Service kits

For valves	Part number	DIN / ISO
8454200	1256700	DIN
8454300	1256701	DIN
8454400	1256702	DIN
8454500	1256703	DIN
8454600	1256704	DIN
8454700	1256705	DIN
8455200	1256700	ISO
8455300	1256701	ISO
8455400	1256702	ISO
8455500	1256703	ISO
8455600	1256704	ISO
8455700	1256705	ISO

## Further options (valves)

XXXXX**08**.XXXX Double acting; 4/2 or 5/2-way pilot valve required

XXXXX**22**.XXXX Higher operating pressure

## Further options on request

- Seal materials: NBR, FPM, EPDM
- Stroke limiter
- Silencer
- Electrical position indicator with proximity switch

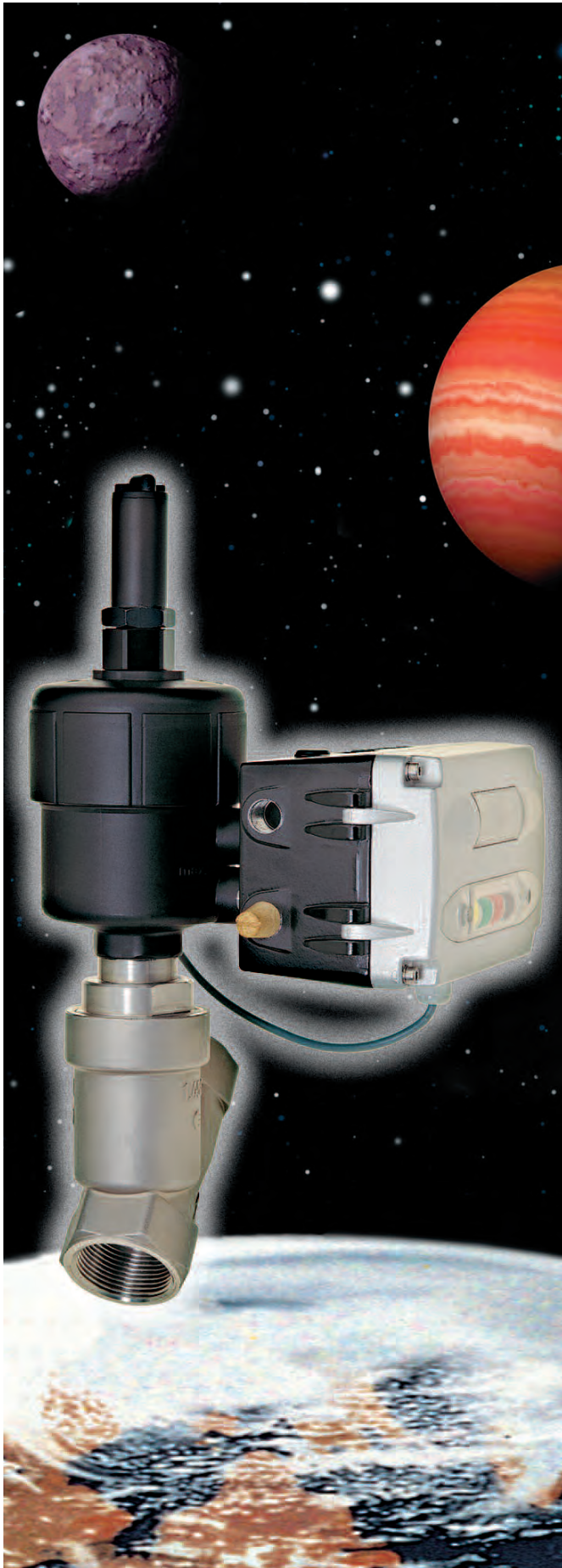
## Accessories

3/2-way pilot valves 84660 / 84680, page 148

### **Note:**

Order service kit 1264287 if these valves are to be used in Zone 1/2 or 21/22 hazardous areas. This kit includes an additional instruction plate, a declaration of conformity and a dust filter. The maximum permissible fluid temperature is reduced to +85 °C.

Please turn to page 276 for technical information on our valves.



Pressure Actuated Valves

## 2/2-way valves DN 15 to DN 50

For aggressive gases and liquids  
 Pressure actuated by external fluid  
 Seat valves  
 Connection DIN 11850  
 Operating pressure: 0 to 16 bar (see technical data)

### Description (standard valve)

Switching function: normally closed  
 Flow direction: determined  
 Mounting position: as required

### Process fluid characteristics / Valve material

Fluid temperature: 0 °C up to max. +180 °C  
 Ambient temperature: 0 °C up to max. +60 °C  
 Body: Stainless steel (1.4581)  
 Seat seal: PTFE  
 Internal parts: Sandvik 1802 Stainless steel  
 Spindle sealing: PTFE / FPM, self-adjusting

### Pilot fluid characteristics / Actuator material

Pilot connection: G 1/4  
 Pilot fluid: neutral gases  
 Fluid temperature: max. +80 °C  
 Material body: Stainless steel, WEMA-Kor coated aluminium  
 Seal: NBR  
 Internal parts: Coated steel

### Features

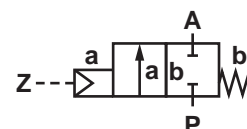
- High flow rate
- Suitable for contaminated process fluids
- Damped closing (valve closes against flow direction)
- For robust industry applications
- Suitable for vacuum up to max. 90%

### Technical data

Connection size according to DIN 11850	DN mm	kv-Value m³/h	Part number	Operating pressure bar*				
				PTFE	Normally open**	Position indicator: 2 switches, Ex-protected	Position indicator: on / off with micro switches	Fluid temperature +200 °C
				00	01	40	41	60
Actuator Ø 70 mm								
Series 1	15	4.8	84582XX.0000.00000	0 - 16	0 - 16	0 - 16	0 - 16	0 - 16
Series 1	20	10.0	84583XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10
Series 2	25	14.0	84584XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10
Series 2	32	23.0	84585XX.0000.00000	0 - 7	0 - 7	0 - 7	0 - 7	0 - 7
Series 2	40	30.0	84586XX.0000.00000	0 - 4.5	0 - 4.5	0 - 4.5	0 - 4.5	0 - 4.5
Series 3	50	37.0	84587XX.0000.00000	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3
Actuator Ø 125 mm								
Series 2	32	27.0	84885XX.0000.00000	0 - 16	0 - 16	0 - 16	0 - 16	0 - 16
Series 2	40	37.0	84886XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10
Series 3	50	53.0	84887XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10

\* Pilot pressure 3.5 - 8 bar

\*\* Pilot pressure 1 - 6 bar





## Drawing legend

Index	Description
101	Valve body
*102	Valve spindle assembly
*103	Gasket
104	Screw piece
*105	Pressure spring
*106	Spindle sealing
107	Spacer sleeve
*108	Sleeve bearing
109	Nut
110	Bottom of control head housing
*111	O-ring
*112	FPM lip seal
113	Round plate
*114	Lip seal
115	Round plate
*116	Seal-Lock® nut
117	Control head housing
*118	Pressure spring - DN 50 only
*119	Pressure spring
120	Hexagon screw
121	Plug

\* A service kit consists of these individual parts.

## Service kits

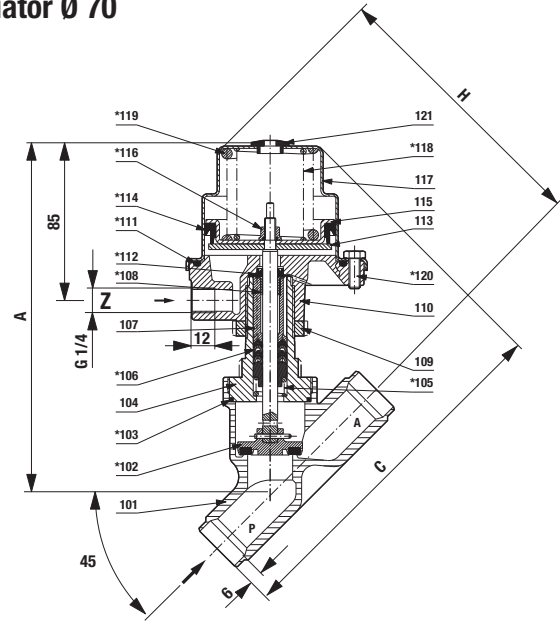
For valves	Part number
Actuator Ø 70 mm	
8458200	1249651
8458300	1249652
8458400	1249653
8458500	1249654
8458600	1249655
8458700	1249656
Actuator Ø 125 mm	
8488500	1249657
8488600	1249658
8488700	1249339

Connection size DN	Connection size according to DIN 11850	R	S	DN	A	C	D	H	L
Actuator Ø 70 mm									
15	Series 1	21.3	1.6	15	176	175	35	140.0	100
20	Series 1	26.9	1.6	20	182	184	39	145.0	110
25	Series 2	33.7	2.0	25	190	190	40	150.5	120
32	Series 2	42.4	2.0	32	205	207	46	161.0	143
40	Series 2	48.3	2.0	40	207	213	51	162.0	160
50	Series 3	60.3	2.0	50	219	226	55.5	171.0	181
Actuator Ø 125 mm									
32	Series 2	42.4	2.0	32	270	271	46	221.0	143
40	Series 2	48.3	2.0	40	272	277	51	223.0	160
50	Series 3	60.3	2.0	50	284	290	55.5	231.0	181

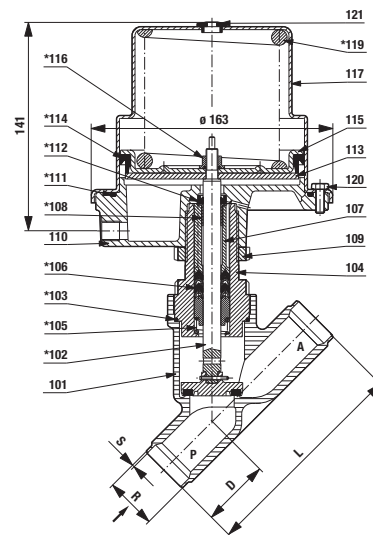
## Further options on request

Optical position indicator

## Actuator Ø 70



## Actuator Ø 125



## Accessories

3/2-way pilot valves 84660 / 84680, page 148

Please turn to page 276 for technical information on our valves.



## 2/2-way valves DN 15 to DN 50

For aggressive gases and liquids  
 Pressure actuated by external fluid  
 Seat valves  
 Connection ISO-welded ends  
 Operating pressure: 0 to 16 bar (see technical data)

### Description (standard valve)

Switching function: normally closed  
 Flow direction: determined  
 Mounting position: as required

### Process fluid characteristics / Valve material

Fluid temperature: 0 °C up to max. +180 °C  
 Ambient temperature: 0 °C up to max. +60 °C  
 Body: Stainless steel (1.4581)  
 Seat seal: PTFE  
 Internal parts: Sandvik 1802 Stainless steel  
 Spindle sealing: PTFE / FPM, self-adjusting

### Pilot fluid characteristics / Actuator material

Pilot connection: G 1/4  
 Pilot fluid: neutral gases  
 Fluid temperature: max. +80 °C  
 Material body: Stainless steel, WEMA-Kor coated aluminium  
 Seal: NBR  
 Internal parts: Coated steel

### Features

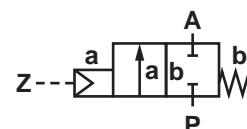
- High flow rate
- Suitable for contaminated process fluids
- Damped closing (valve closes against flow direction)
- For robust industry applications
- Suitable for vacuum up to max. 90%

### Technical data

Connection size	DN mm	kv-Value m³/h	Part number	Operating pressure bar*				
				PTFE	Normally open**	Position indicator: 2 switches, Ex-protected	Position indicator: on / off with micro switches	Fluid temperature +200 °C
				00	01	40	41	60
Actuator Ø 70 mm								
ISO	15	4.8	84592XX.0000.00000	0 - 16	0 - 16	0 - 16	0 - 16	0 - 16
ISO	20	10.0	84593XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10
ISO	25	14.0	84594XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10
ISO	32	23.0	84595XX.0000.00000	0 - 7	0 - 7	0 - 7	0 - 7	0 - 7
ISO	40	30.0	84596XX.0000.00000	0 - 4.5	0 - 4.5	0 - 4.5	0 - 4.5	0 - 4.5
ISO	50	37.0	84597XX.0000.00000	0 - 3	0 - 3	0 - 3	0 - 3	0 - 3
Actuator Ø 125 mm								
ISO	32	27.0	84895XX.0000.00000	0 - 16	0 - 16	0 - 16	0 - 16	0 - 16
ISO	40	37.0	84896XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10
ISO	50	53.0	84897XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10

\* Pilot pressure 3.5 - 8 bar

\*\* Pilot pressure 1 - 6 bar

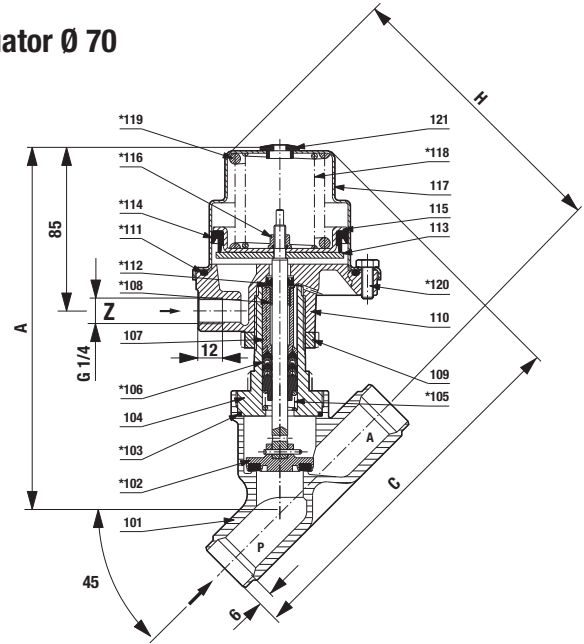


**Drawing legend**

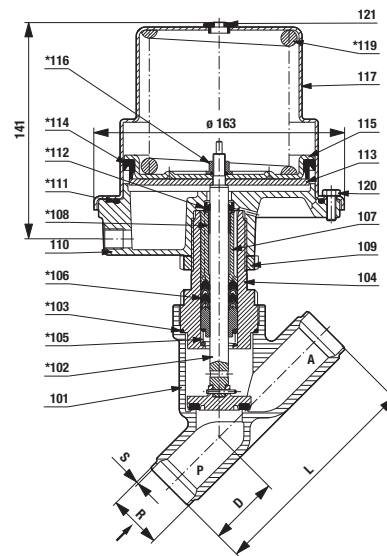
Index	Description
101	Valve body
*102	Valve spindle assembly
*103	Gasket
104	Screw piece
*105	Pressure spring
*106	Spindle sealing
107	Spacer sleeve
*108	Sleeve bearing
109	Nut
110	Bottom of control head housing
*111	O-ring
*112	FPM lip seal
113	Round plate
*114	Lip seal
115	Round plate
*116	Seal-Lock® nut
117	Control head housing
*118	Pressure spring - DN 50 only
*119	Pressure spring
120	Hexagon screw
121	Plug

\* A service kit consists of these individual parts.

**Actuator Ø 70**



**Actuator Ø 125**



Connection size DN	Connection size	R	S	DN	A	C	D	H	L
<b>Actuator Ø 70 mm</b>									
15	ISO	21.3	1.6	15	176	175	35	140.0	100
20	ISO	26.9	1.6	20	182	184	39	145.0	110
25	ISO	33.7	2.0	25	190	190	40	150.5	120
32	ISO	42.4	2.0	32	205	207	46	161.0	143
40	ISO	48.3	2.0	40	207	213	51	162.0	160
50	ISO	60.3	2.0	50	219	226	55.5	171.0	181
<b>Actuator Ø 125 mm</b>									
32	ISO	42.4	2.0	32	270	271	46	221.0	143
40	ISO	48.3	2.0	40	272	277	51	223.0	160
50	ISO	60.3	2.0	50	284	290	55.5	231.0	181

Pressure Actuated Valves

## Service kits

For valves	Part number
Actuator Ø 70 mm	
8459200	1249651
8459300	1249652
8459400	1249653
8459500	1249654
8459600	1249655
8459700	1249656
Actuator Ø 125 mm	
8489500	1249657
8489600	1249658
8489700	1249339

## Further options on request

Optical position indicator

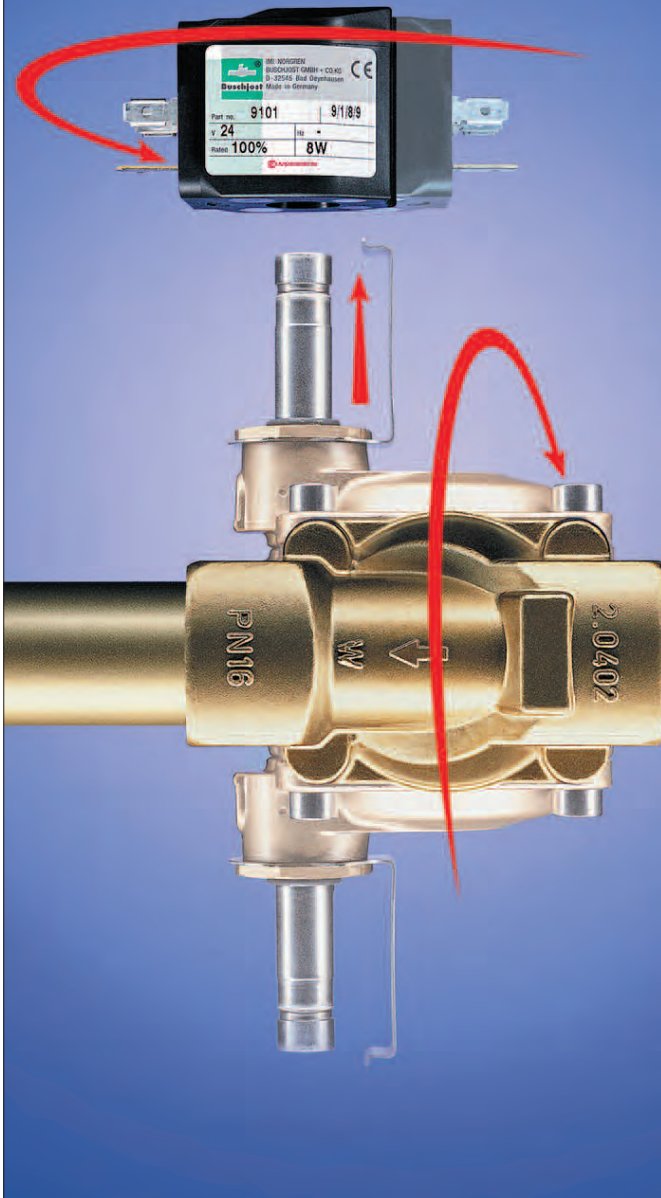
## Accessories

3/2-way pilot valves 84660 / 84680, page 148

Please turn to page 276 for technical information on our valves.

Turn it to good use:

# Click-on®



Pressure Actuated Valves

## 2/2-way valves DN 15 to DN 25

For aggressive gases and liquids  
 Pressure actuated by external fluid  
 Seat valves  
 Internal thread G 1/2 to G 1 or 1/2" NPT to 1" NPT  
 Operating pressure: 0 - 16 bar (see technical data)

### Description (standard valve)

Switching function: normally closed  
 Flow direction: determined  
 Mounting position: as required

### Process fluid characteristics / Valve material

Fluid temperature: -10 °C up to max. +180 °C  
 Ambient temperature: -10 °C up to max. +60 °C  
 Body: Stainless steel  
 Seat seal: PTFE  
 Internal parts: Stainless steel  
 Spindle sealing: PTFE / FPM, self-adjusting

### Pilot fluid characteristics / Actuator material

Pilot fluid: neutral gases  
 Fluid temperature: max. +60 °C  
 Body: Polyamid 66 with 30% fibre glass  
 Seal: NBR  
 Internal parts: Brass, Stainless steel

### Features

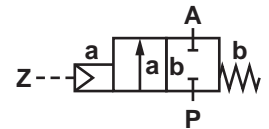
- Optical position indicator is standard
- Damped closing (valve closes against flow direction)
- Suitable for contaminated process fluids
- Suitable for vacuum up to max. 90%
- Reversed flow direction optional
- High flow rate
- Optional pressure actuation by liquid pilot fluids

### Technical data actuator Ø 50 mm

Connection size G	DN mm	kv-Value m³/h	Part number	Operating pressure bar*				
				PTFE	Normally open**	Position indicator: on / off with micro switches	NAMUR adapter plate	Position indicator to NAMUR EN 50227
				<b>00</b>	<b>01</b>	<b>23</b>	<b>50</b>	<b>58</b>
1/2	15	4.8	84742 <b>XX</b> .0000. <b>00000</b>	0 - 16	0 - 16	0 - 16	0 - 16	0 - 16
3/4	20	10.0	84743 <b>XX</b> .0000. <b>00000</b>	0 - 8	0 - 8	0 - 8	0 - 8	0 - 8
1	25	14.0	84744 <b>XX</b> .0000. <b>00000</b>	0 - 5	0 - 5	0 - 5	0 - 5	0 - 5

\* Pilot pressure 3.5 - 10 bar, pilot connection Z2

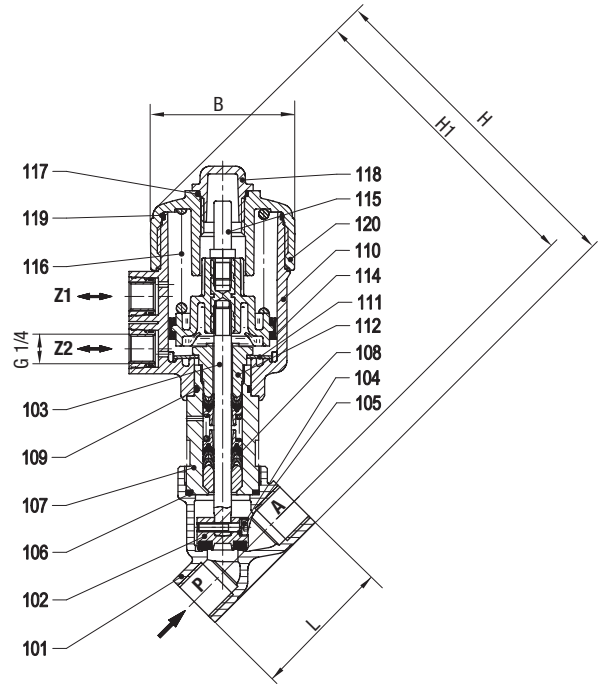
\*\* Pilot pressure 1 - 10 bar, pilot connection Z1



## Drawing legend

Index	Description
101	Valve body
*102	Valve plate
103	Valve spindle assembly
104	Allen head screw
105	Spring washer
*106	Gasket
107	Screw piece
*108	Spindle sealing
*109	O-ring
110	Bottom of control head housing
*111	Cup spring
112	Screw piece
*113	Pressure spring
*114	Piston seal
115	Signal pin
*116	Pressure spring
117	O-ring
118	End cap
*119	O-ring
120	Control head housing cover

\* A service kit consists of these individual parts.



Pressure Actuated Valves

Connection size G	L mm	B mm	H mm	H1 mm
1/2	65	66	154	140.5
3/4	75	66	160	144.5
1	90	66	171	150.5

## Service kits

For valves	Part number
8474200	1260581
8474300	1260583
8474400	1268585

## Further options (valves)

XXXX08.XXXX Double acting; 4/2 or 5/2-way pilot valve required

## Further options on request

- Seal materials: NBR, FPM, EPDM
- Stroke limiter
- Silencer

## Accessories

3/2-way pilot valves 84660 / 84680, page 148

## Note:

Order service kit 1264287 if these valves are to be used in Zone 1/2 or 21/22 hazardous areas. This kit includes an additional instruction plate, a declaration of conformity and a dust filter. The maximum permissible fluid temperature is reduced to +85 °C.

Please turn to page 276 for technical information on our valves.

## 2/2-way valves DN 15 to DN 25

For aggressive gases and liquids  
 Pressure actuated by external fluid  
 Seat valves  
 Connection DIN 11850 or ISO-welded ends  
 Operating pressure: 0 - 16 bar (see technical data)

### Description (standard valve)

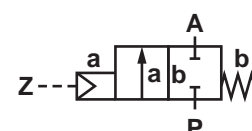
Switching function: normally closed  
 Flow direction: determined  
 Mounting position: as required

### Process fluid characteristics / Valve material

Fluid temperature: -10 °C up to max. +180 °C  
 Ambient temperature: -10 °C up to max. +60 °C  
 Body: Stainless steel  
 Seat seal: PTFE  
 Internal parts: Stainless steel  
 Spindle sealing: PTFE / FPM, self-adjusting

### Pilot fluid characteristics / Actuator material

Pilot fluid: neutral gases  
 Fluid temperature: max. +60 °C  
 Body: Polyamid 66 with 30% fibre glass  
 Seal: NBR  
 Internal parts: Brass, Stainless steel



### Features

- Optical position indicator is standard
- Damped closing (valve closes against flow direction)
- Suitable for contaminated process fluids
- Suitable for vacuum up to max. 90%
- Reversed flow direction optional
- High flow rate
- Optional pressure actuation by liquid pilot fluids

### Technical data actuator Ø 50 mm

Connection size G	DN mm	kv-Value m³/h	Part number	Operating pressure bar*				
				PTFE	Normally open**	Position indicator: on / off with micro switches	NAMUR adapter plate	Position indicator to NAMUR EN 50227
				00	01	23	50	58
Series 1	15	4.8	84762XX.0000.00000	0 - 16	0 - 16	0 - 16	0 - 16	0 - 16
Series 1	20	10.0	84763XX.0000.00000	0 - 8	0 - 8	0 - 8	0 - 8	0 - 8
Series 1	25	14.0	84764XX.0000.00000	0 - 5	0 - 5	0 - 5	0 - 5	0 - 5
ISO	15	4.8	84772XX.0000.00000	0 - 16	0 - 16	0 - 16	0 - 16	0 - 16
ISO	20	10.0	84773XX.0000.00000	0 - 8	0 - 8	0 - 8	0 - 8	0 - 8
ISO	25	14.0	84774XX.0000.00000	0 - 5	0 - 5	0 - 5	0 - 5	0 - 5

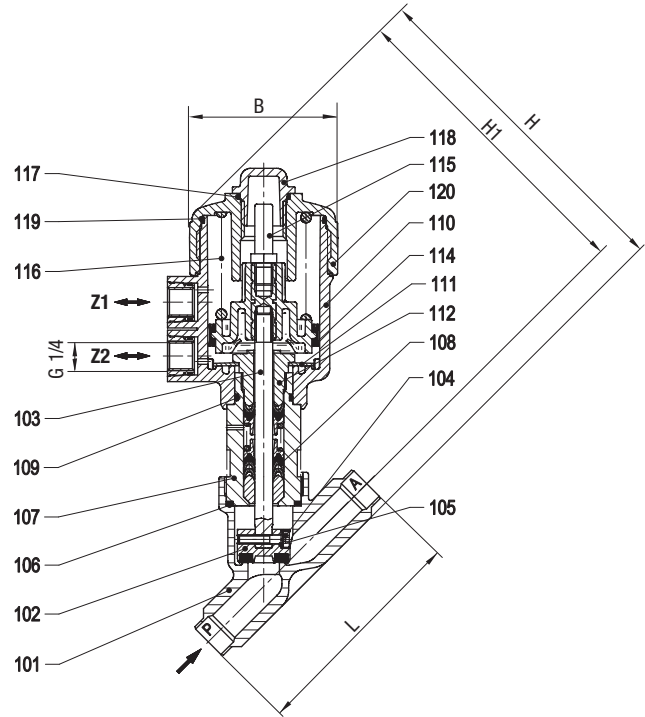
\* Pilot pressure 3.5 - 10 bar, pilot connection Z2

\*\* Pilot pressure 1 - 10 bar, pilot connection Z1

**Drawing legend**

Index	Description
101	Valve body
*102	Valve plate
103	Valve spindle assembly
104	Allen head screw
105	Spring washer
*106	Gasket
107	Screw piece
*108	Spindle sealing
*109	O-ring
110	Bottom of control head housing
*111	Cup spring
112	Screw piece
*114	Piston seal
115	Signal pin
*116	Pressure spring
117	O-ring
118	End cap
*119	O-ring
120	Control head housing cover

\* A service kit consists of these individual parts.



Connection size DN	L mm	B mm	H mm	H1 mm
15	100	66	149.5	140.5
20	110	66	156.0	145.0
25	120	66	165.0	150.5

**Service kits**

For valves	Part number	DIN / ISO
8476200	1260581	DIN
8476300	1260583	DIN
8476400	1268585	DIN
8477200	1260581	ISO
8477300	1260583	ISO
8477400	1268585	ISO

**Further options (valves)**

XXXXX08.XXXX Double acting; 4/2 or 5/2-way pilot valve required

**Further options on request**

- Seal materials: NBR, FPM, EPDM
- Stroke limiter
- Silencer

**Accessories**

3/2-way pilot valves 84660 / 84680, page 148

Please turn to page 276 for technical information on our valves.

Pressure Actuated Valves

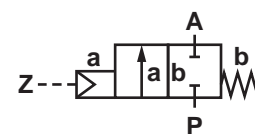


## 2/2-way valves DN 15 to DN 100

For neutral gases and liquids  
 Pressure actuated by external fluid, with piston actuation  
 Seat valves  
 Flange connection: PN 16  
 Operating pressure: 0 to 16 bar (see technical data)

### Description (standard valve)

Valve for air, water, oil, hot water and steam up to max. 400 mm<sup>2</sup>/s (cSt)  
 Type: pressure actuated seat valve by external fluid  
 Switching function: normally closed  
 Flow direction: determined  
 Pilot fluid: air, max. +80 °C  
 Fluid temperature: -10 °C up to max. +180 °C  
 Ambient temperature: -10 °C up to max. +80 °C  
 Mounting position: as required



### Valve material

Body: Grey cast iron  
 Seat seal: PTFE  
 Spindle sealing: PTFE chevron packing  
 Internal parts: Brass, Stainless steel

### Features

- High flow rate
- Suitable for contaminated process fluids
- For robust industry applications
- Damped closing (valve closes against flow direction)

### Technical data

Connection size DN mm	kv-Value m <sup>3</sup> /h	Part number	Operating pressure in bar with gases or liquids up to 400 mm <sup>2</sup> /s (cSt) *				
			PTFE <b>00</b>	Normally open <b>01</b>	Optical position indicator <b>55</b>	Electrical position indicator: on / off with micro switches <b>57</b>	Electrical position indicator: EEx de IIC T6 <b>64</b>
15	3.6	83202XX.0000.00000	0 - 16	0 - 16	0 - 16	0 - 16	0 - 16
20	6.1	83203XX.0000.00000	0 - 16	0 - 16	0 - 16	0 - 16	0 - 16
25	9.5	83204XX.0000.00000	0 - 10	0 - 16	0 - 10	0 - 10	0 - 10
32	15.0	83205XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10
40	23.0	83206XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10
50	35.0	83207XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10
65	61.0	83208XX.0000.00000	0 - 7	0 - 7	0 - 7	0 - 7	0 - 7
80	90.0	83209XX.0000.00000	0 - 5	0 - 5	0 - 5	0 - 5	0 - 5
100	138.0	83210XX.0000.00000	0 - 2.5	0 - 2.5	0 - 2.5	0 - 2.5	0 - 2.5
larger actuator			<b>50*</b>	<b>80**</b>	-	<b>65</b>	-
65***	61.0	83208XX.0000.00000	0 - 16	0 - 16	-	0 - 10.5	-
80***	90.0	83209XX.0000.00000	0 - 9	0 - 16	-	0 - 10.5	-
100***	138.0	83210XX.0000.00000	0 - 10.5	0 - 10	-	0 - 10.5	-

\* Pilot pressure 5.5 - 7 bar

\*\* Pilot pressure 1 - 7 bar

\*\*\* No dimensional drawing available for these valves

## Drawing legend

Index	Description
1	Valve body
2	Spindle
*3	Locking ring
*4	Gasket
*5	Bushing
*6	Pressure spring
*7	Supporting ring
*8	Sleeve
*9	Compression ring
10.01	Cover
10.02	Piston bushing
*11	Hex nut
12	Protective cap
*14	Gasket
15	Valve plate
16	Rivet pin
17	Pressure spring
18	Pressure spring ***
19	Valve plate
20	Piston assembly
*21	Lip seal
*22	O-ring
23	Allen head screw
*24	O-ring
25	Bottom assembly
*26	Lip seal
27	Hexagon nut
28	Spring washer
29	Flange
*30	Gasket
*33	Sleeve
34	Pressure spring **

Index	Description
16	Collar nut
35	Allen head screw
36	Spring washer
37	Half-shell
40	Locking plate

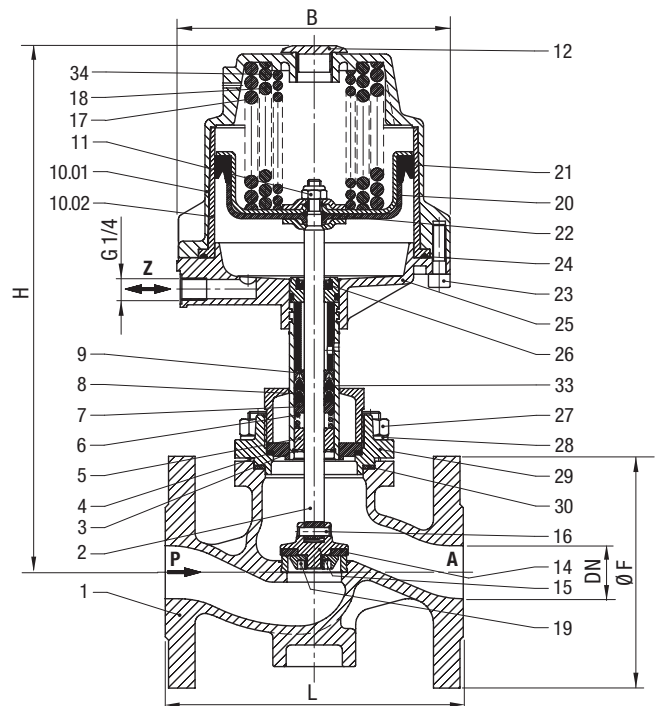
\* A service kit consists of these individual parts.

\*\* For DN 50 only

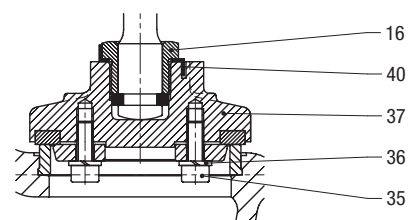
\*\*\* For DN 40 and 50 only

Connection size DN	L mm	B mm	H mm	øF mm
15	130	96	218	95
20	150	96	227	105
25	160	96	233	115
32	180	164	314	140
40	200	164	319	150
50	230	164	329	165
65	290	164	339	185
80	310	164	360	200
100	350	164	381	220

## Standard actuator



## DN 65 - DN 100



## Further options (valves)

XXXXX53.XXXX Pilot fluid water

XXXXX58.XXXX Electrical position indicator design 2

XXXXX95.XXXX Body GP 240 H (cast steel),

Seat seal 1.4112/1.4305 stainless steel, Flange PN 40, operating pressure depends on connection size, maximum fluid temperature +300 °C

## Further options on request

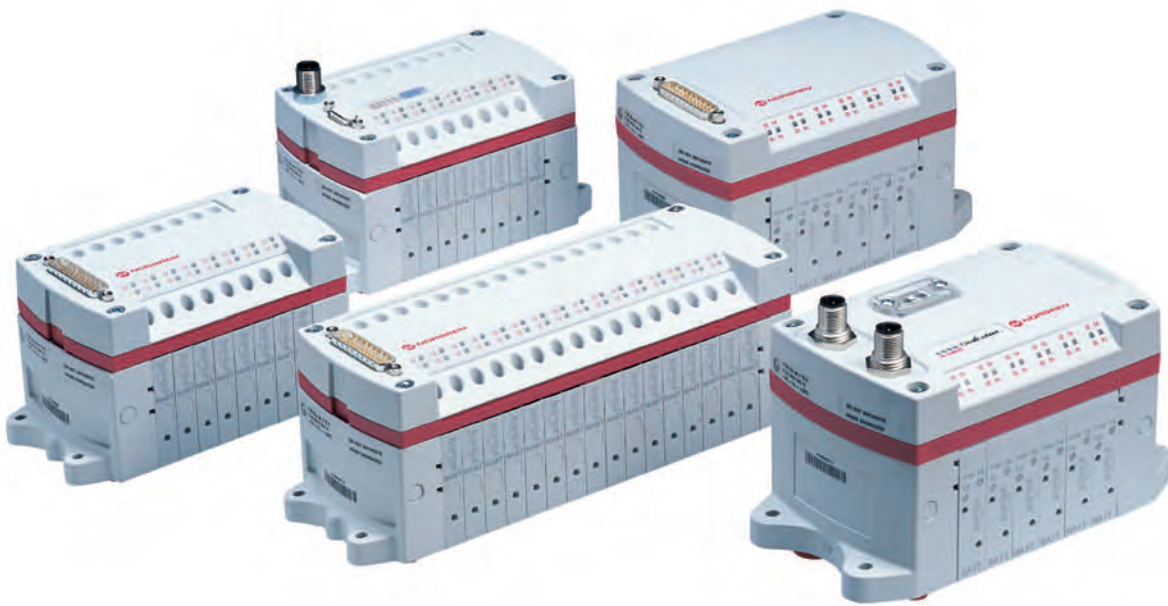
Please turn to page 276 for technical information on our valves.

# Valve Islands

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NORGREN'S VM SERIES VALVE ISLANDS ARE AVAILABLE IN BOTH 10MM AND 15MM BODY WIDTHS AND PROVIDE UNSURPASSED FLOW RATES OF 430 L/MIN AND 1,000 L/MIN RESPECTIVELY. YOU HAVE THE OPTION OF INDIVIDUALLY WIRED, MULTIPOLE OR FIELDBUS CONNECTIVITY WITH ALL OF THE MARKET-LEADING PROTOCOLS OFFERED.

You can also choose from DIN rail, through hole, panel and sub base mounting options. Valve islands can be configured from 2 to 20 stations with single or double solenoids and with a high number of possibilities for manual overrides and tube fitting sizes. This results in over 15 million possible configurations. Selection, however, is simple. Norgren provides a software configuration tool on [www.norgren.com](http://www.norgren.com) which provides you with a part number and price. 2D and 3D CAD drawings are also provided in 13 file formats.



## VM series valve islands - the family

VM10 - is a 10 mm body width system valve with an unsurpassed flow rate of 430 l/min. Its design ensures it is highly suitable for many applications across a wide range of industry sectors. The high number of options available enables configuration of the valve islands to meet your exact requirements.

VM15 - is a 15 mm body width system valve, again providing unsurpassed flow for size, this time 1,000 l/min. It has all of the options offered with the VM10 plus some additional multi-pressure options often required with higher flow applications.

Configuring valve islands to exactly match requirements is easy using Norgren's simple software configuration tool available online at [www.norgren.com](http://www.norgren.com).

# Valve Islands

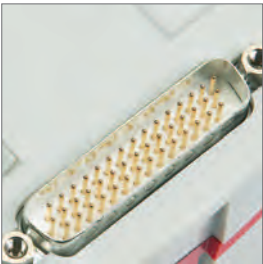
## Options & accessories



Integrate VM10 and VM15 valve islands with Norgren's FD67 I/O product through the use of a multipole driver. This allows control and diagnostics of each output over the fieldbus.



Clip in manual overrides for VM10 for operating solenoid overrides without the need for tools.



Optional power connection for each VM10 solenoid for interlocking in safety critical applications.



Complete range of multipole and fieldbus cables and connectors enable single sourcing of the complete system.



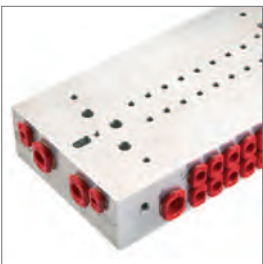
ISEMs (Intermediate Supply Exhaust Manifolds) enable multiple pressures to be controlled in one valve island.



Stick on label and hinged label housing provide flexibility in valve identification.



Robust bracket for mounting directly or via DIN rail.



Pneumapole sub base facilitates fast and simple servicing and exchange without the need to disconnect pipework. Also provides bulkhead mounting capability.

## 3/2-way valves DN 15 to DN 100

For neutral gases and liquids  
 Pressure actuated by external fluid  
 Seat valves  
 Flange connection: PN 16  
 Operating pressure: 0 to 16 bar (see technical data)

### Description (standard valve)

Valve for air, water, oil, hot water and steam up to 400 mm<sup>2</sup>/s (cSt)  
 Switching function: normally closed from P to A,  
 closed by spring force,  
 opened from P to A by pilot pressure  
 Flow direction: determined  
 Pilot fluid: air, max. +80 °C  
 Fluid temperature: -10 °C up to max. +180 °C  
 Ambient temperature: -10 °C up to max. +80 °C  
 Mounting position: as required, preferably with actuator vertical on top

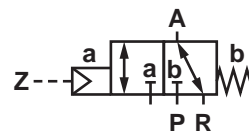


### Material

Body: Grey cast iron  
 Seat seal: PTFE  
 Spindle sealing: PTFE chevron packing  
 Internal parts: Brass, Stainless steel

### Features

- Suitable for steam
- Can be used as Y-pattern/selector valve (pressure connected to A)
- High flow rate
- Damped closing
- For robust industry applications



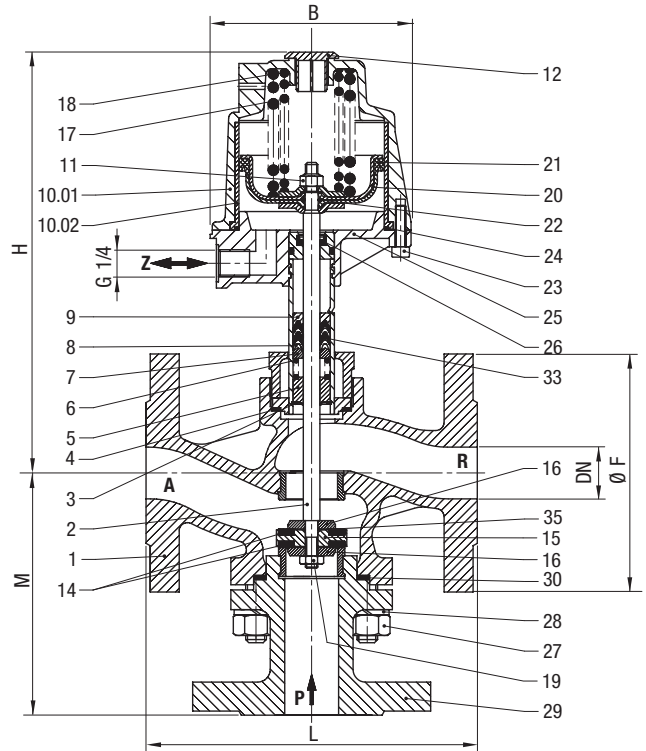
### Technical data

Connection size DN mm	kv-Value m <sup>3</sup> /h		Part number	Operating pressure in bar with gases or liquids up to 400 mm <sup>2</sup> /s (cSt) *			
	Way P -> A	Way A -> R		PTFE <b>00</b>	Optical position indicator <b>55</b>	Electrical position indicator: on / off with micro switches <b>57</b>	Electrical position indicator EEx de IIC T6 <b>64</b>
15	6.1	4.2	83242 <b>XX</b> .0000. <b>00000</b>	0 - 16	0 - 16	0 - 16	0 - 16
20	12.0	7.0	83243 <b>XX</b> .0000. <b>00000</b>	0 - 16	0 - 16	0 - 16	0 - 16
25	19.0	12.5	83244 <b>XX</b> .0000. <b>00000</b>	0 - 10	0 - 10	0 - 10	0 - 10
32	25.0	15.0	83245 <b>XX</b> .0000. <b>00000</b>	0 - 16	0 - 16	0 - 16	0 - 16
40	39.0	27.0	83246 <b>XX</b> .0000. <b>00000</b>	0 - 14	0 - 14	0 - 14	0 - 14
50	64.0	43.0	83247 <b>XX</b> .0000. <b>00000</b>	0 - 10	0 - 10	0 - 10	0 - 10
65	102.0	67.0	83248 <b>XX</b> .0000. <b>00000</b>	0 - 7	0 - 7	0 - 7	0 - 7
80	144.0	94.0	83249 <b>XX</b> .0000. <b>00000</b>	0 - 4	0 - 4	0 - 4	0 - 4
100	219.0	144.0	83250 <b>XX</b> .0000. <b>00000</b>	0 - 2	0 - 2	0 - 2	0 - 2

\* Pilot pressure 5.5 - 7 bar

## Drawing legend

Index	Description
1	Valve body
2	Spindle
3	Locking ring
4	Flat seal
5	Bushing
6	Pressure spring
7	Supporting ring
8	Packing ring
9	Compression ring
10.01	Cover
10.02	Piston bushing
11	Lock nut
12	Protective cap
14	Gasket
15	Valve plate
16	Valve plate
17	Pressure spring
18	Pressure spring
19	Retaining nut
20	Piston assembly
21	Lip seal
22	O-ring
23	Allen head screw
24	O-ring
25	Bottom assembly
26	Lip seal
27	Hexagon nut
28	Spring washer
29	Flange
30	Flange gasket
33	Sleeve
35	O-ring



Pressure Actuated Valves

Connection size DN	L mm	B mm	M mm	H mm	ØF mm
15	130	96	97	201	95
20	150	96	110	206	105
25	160	96	116	207	115
32	180	164	140	295	140
40	200	164	145	303	150
50	230	164	156	312	165
65	290	164	182	319	185
80	310	164	188	331	200
100	350	164	229	344	220

### Further options (valves)

XXXXXX53.XXXX Pilot fluid water valves

### Further options on request

### Accessories

3/2-way pilot valves 84660 / 84680, page 148

Please turn to page 276 for technical information on our valves.



## 2/2-way valves G 1/2 to G 2

For neutral gases and liquids  
 Pressure actuated by external fluid  
 Diaphragm valves  
 Internal thread G 1/2 to G 2  
 Operating pressure: 0 to 10 bar

### Description (standard valve)

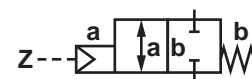
Valve for high-viscosity and contaminated media

Switching function:	normally closed,
Flow direction:	as required
Pilot fluid:	air, max. +40 °C
Fluid temperature:	-10 °C up to max. +80 °C
Ambient temperature:	-10 °C up to max. +55 °C
Mounting position:	as required



### Material

Body:	Grey cast iron
Seat seal:	EPDM



### Features

- Any flow direction and mounting position
- Special seal materials are required for use with oil and oleiferous media

### Technical data

Connection size G	DN mm	kv-Value m³/h	Part number	Operating pressure bar						
				EPDM	Normally open	FPM	PTFE	Optical position indicator	Electrical position indicator: on / off with micro switches	Electrical position indicator EEx de IIC T6
				00	01*	03	06	55	57	64
1/2	15	7.0	83352XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10
3/4	20	15.0	83353XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10
1	25	20.0	83354XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10
1 1/4	32	37.0	83355XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10
1 1/2	40	41.0	83356XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10
2	50	82.0	83357XX.0000.00000	0 - 10	0 - 10**	0 - 10	0 - 10	0 - 10	0 - 10	0 - 10

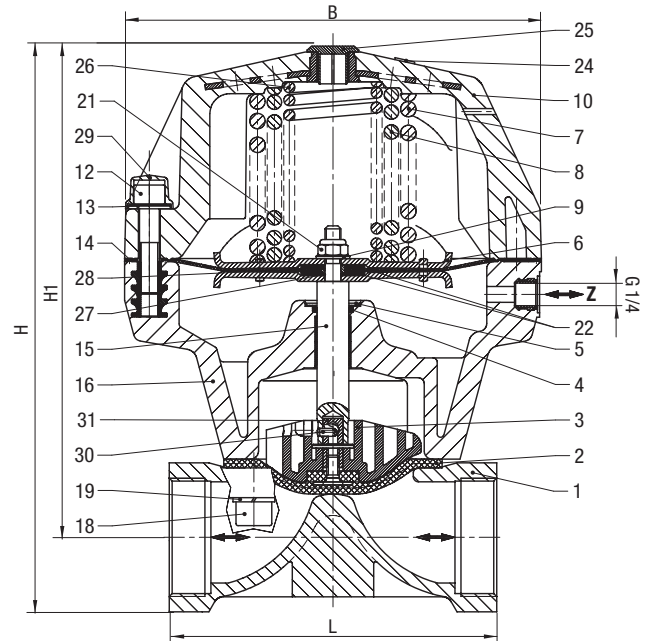
Pilot pressure 5.5 - 7 bar

\* Pilot pressure 1 - 5.5 bar

\*\* Pilot pressure 1 - 5 bar

**Drawing legend**

Index	Description
1	Valve body
*2	Diaphragm
3	Compression piece
*4	Quad ring
*5	Lock washer
6	Diaphragm disk
7	Pressure spring
8	Pressure spring
9	Washer
10	Upper valve body
12	Screw
13	Washer
*14	Diaphragm
15	Spindle
16	Lower valve body
18	Screw
19	Spring washer
21	Uni-stop-nut
*22	Gasket
24	Identification plate
25	Plug
26	Pressure spring
27	O-ring
28	Spacer
29	Cover
30	Dowel pin
31	Plunger



\* A service kit consists of these individual parts.

Connection size G	L mm	B mm	H mm	øH1 mm
1/2	85	125	164.0	148
3/4	85	125	168.5	148
1	110	125	171.0	148
1 1/4	120	155	230.5	203
1 1/2	140	155	235.5	203
2	165	210	285.5	248

**Further options (valves)**

XXXXXX50.XXXX Valve with Stainless Steel body

**Further options on request**

**Accessories**

3/2-way pilot valves 84660 / 84680, page 148

Please turn to page 276 for technical information on our valves.

Pressure Actuated Valves



## 2/2-way valves DN 15 to DN 150

For neutral gases and liquids  
 Pressure actuated by external fluid  
 Diaphragm valves  
 Flange connection: PN 10 / PN 16  
 Operating pressure: 0 to 10 bar (see technical data)

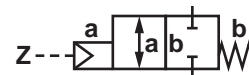
### Description (standard valve)

Solenoid valve for high-viscosity and contaminated media  
 Switching function: normally closed,  
 Flow direction: as required  
 Pilot fluid: air max. +40 °C  
 Fluid temperature: -10 °C up to max. +80 °C  
 Ambient temperature: -10 °C up to max. +55 °C  
 Mounting position: as required



### Material

Body: Grey cast iron  
 Seat seal: EPDM



### Features

- Any flow direction and mounting position
- Special seal materials are required for use with oil and oleiferous media

### Technical data

Connection size DN mm	kv-Value m <sup>3</sup> /h	Part number*	Operating pressure bar						
			EPDM	Normally open	FPM	PTFE	Optical position indicator	Electrical position indicator: on / off with micro switches	Electrical position indicator EEx de IIC T6
			00	01**	03	06	55	57	64
15	7.0	83382XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 6	0 - 10	0 - 10	0 - 10
20	14.0	83383XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 6	0 - 10	0 - 10	0 - 10
25	20.0	83384XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 6	0 - 10	0 - 10	0 - 10
32	37.0	83385XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 6	0 - 10	0 - 10	0 - 10
40	40.0	83386XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 6	0 - 10	0 - 10	0 - 10
50	82.0	83387XX.0000.00000	0 - 10	0 - 10	0 - 10	0 - 6	0 - 10	0 - 10	0 - 10
65	102.0	83388XX.0000.00000	0 - 6	0 - 6	0 - 6	0 - 6	0 - 6	0 - 6	0 - 6
80	165.0	83389XX.0000.00000	0 - 8	0 - 8	0 - 8	0 - 6	0 - 8	0 - 8	0 - 8
100	241.0	83390XX.0000.00000	0 - 6	0 - 6	0 - 6	0 - 6	0 - 6	0 - 6	0 - 6
125	378.0	83391XX.0000.00000	0 - 8	0 - 8	0 - 8	0 - 6	0 - 8	0 - 8	0 - 8
150	496.0	83392XX.0000.00000	0 - 6	0 - 6	0 - 6	0 - 6	0 - 6	0 - 6	0 - 6

\* Pilot pressure DN 15 - 50: 5.5 - 7 bar,  
 Pilot pressure DN 65: 4.5 - 7 bar,  
 Pilot pressure DN 80 - 150: 5.5 - 7 bar

\*\* Pilot pressure DN 65, DN 125, DN 150: 1 - 4.5 bar,  
 Pilot pressure DN 15 - 40: 1 - 5.5 bar,  
 Pilot pressure DN 100: 1 - 5 bar

## Drawing legend

Index	Description
1	Valve body
*2	Diaphragm
3	Compression piece
*4	Quad ring
*5	Lock washer
6	Diaphragm disk
7	Pressure spring
8	Pressure spring
9	Washer
10	Upper valve body
12	Screw
13	Washer
*14	Diaphragm
15	Spindle
16	Lower valve body
18	Screw
19	Spring washer
21	Uni-stop-nut
*22	Gasket
24	Identification plate
25	Plug
26	Pressure spring
27	O-ring
28	Spacer
29	Cover
30	Dowel pin
31	Plunger

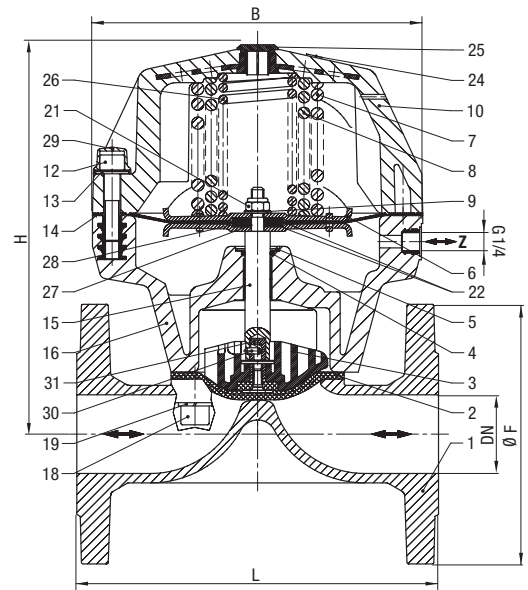
Index	Description
1	Valve body
2	Clamping nut
*4	Diaphragm
5	Compression piece
6	Half-shell
7	Spring washer
8	Nut
9	Hexagon screw
10	Spring washer
11	Allen head screw
30	Adapter
35	Valve head assembly

\* A service kit consists of these individual parts.

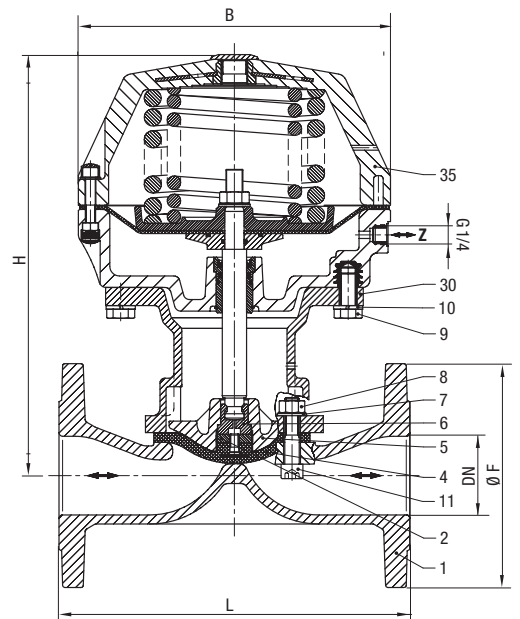
Connection size DN	L mm	B* mm	H mm	øF mm
15	130	125	148	95
20	150	125	148	105
25	160	125	148	115
32	180	155	203	140
40	200	155	203	150
50	230	210	248	165
65	290	256	329	185
80	310	256	339	200
100	350	256	354	220
125	400	360	519	250
150	480	360	514	285

\* B = maximum depth

## DN 15 - DN 50



## DN 65 - DN 150



## Further options (valves)

XXXXXX50.XXXX Body EN-GJS-400-18-LT (Spheroidal cast iron), PFA lined, seals PTFE, operating pressure 0 to 6 bar

## Further options on request

## Accessories

3/2-way pilot valves 84660 / 84680, page 148

Please turn to page 276 for technical information on our valves.

## 2/2-way valves DN 15 to DN 25 with DVGW-approval

For natural gas and heating oil EL, L, M, S  
 Electropneumatic directly actuated  
 Seat valves  
 Flange connection: PN 40  
 Operating pressure: 0 to 25 bar

### Description (standard valve)

Switching function: normally closed  
 Flow direction: determined  
 Mounting position: as required, preferably actuator vertical on top  
 Fluid temperature: -10 °C up to max. +140 °C  
 Ambient temperature: -10 °C up to max. +60 °C

### Material

Body: Cast steel, Stainless steel  
 Seat seal: PTFE  
 Spindle sealing: PTFE / FPM  
 Internal parts: Brass, Stainless steel, Sandvik 1802  
 Pilot fluid: neutral liquids  
 Temperature: -10 °C up to +80 °C

### Features

- Qualification approval EN 264 / DIN 3394 T2 / EN 161
- Short response time < 1 s
- Low pressure drop
- Spindle bushing according to technical instructions on air quality
- High operating cycles

### Technical data

Connection size DN mm	kv-Value m³/h	Part number*	Operating pressure bar**		
			PTFE	Electrical position indicator: on / off with micro switches	Electrical position indicator: 1 switch acting as limit switch
			<b>00</b>	<b>41</b>	<b>50</b>
15	5.5	83862 <b>XX.0247.00000</b>	0 - 25	0 - 25	0 - 25
20	10.0	83863 <b>XX.0247.00000</b>	0 - 25	0 - 25	0 - 25
25	12.5	83864 <b>XX.0247.00000</b>	0 - 25	0 - 25	0 - 25

\* For orders please state voltage and frequency, e.g.: 8386200.0247.**23050** for 230V 50Hz or 8386200.0247.**02400** for 24V DC

\*\* pilot pressure: 4 - 8 bar

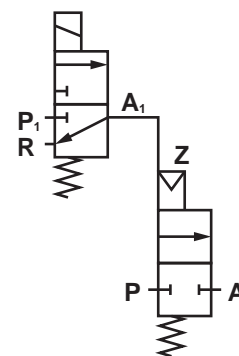
### Solenoid 0247 (standard voltages)

DC	AC	
	50Hz	60Hz
24V	24V	-
-	110V	120V
-	230V	220V

Design according to DIN VDE 0580  
 Voltage range +/-10%, duty cycle 100%  
 Protection class according to EN 60529: IP65  
 Electrical connector according to DIN EN 175301-803 (included)

### Power consumption

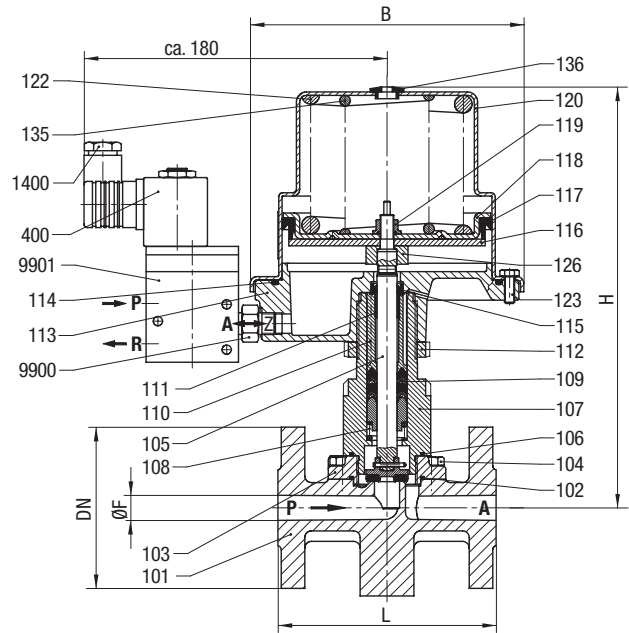
Solenoid	DC	AC	
		Inrush	Holding
0247	7W	18VA	10VA



**Drawing legend**

Index	Description
101	Valve body
*102	O-ring
103	Valve cover
104	Hexagon screw
*105	Valve spindle
*106	Gasket
107	Screw piece
*108	Pressure spring
*109	Spindle sealing
110	Spacer sleeve
*111	Sleeve bearing
112	Nut
113	Bottom of control head housing
*114	O-ring
*115	Lip seal: profile 1
116	Round plate
*117	Lip seal: profile 2
118	Round plate
*119	Seal-Lock® nut
120	Control head housing
*122	Pressure spring
123	Hexagon screw
126	Bushing
*135	Pressure spring
136	Plug
400	Solenoid
1400	Electrical connector
9900	Double screwed connection
9901	3/2-way pilot valve

\* A service kit consists of these individual parts.



Pressure Actuated Valves

Connection size DN	L mm	B mm	H mm	øF mm
15	130	163	250	96
20	150	163	265	105
25	160	163	265	115

**Further options on request**

- Solenoids in different EEx protection classes and other versions
- Inspection certificates according to DIN 50049 (EN 10204-3.1)

Please turn to page 276 for technical information on our valves.

# Dust Filtration

Dust-free



- 1 Dust filter valves with outstanding performance
- 2 High-tech Differential Pressure Regulator
- 3 User friendly dust filter valves

Buschjost has been manufacturing components for dust cleaning systems for over 25 years. Based on this experience and numerous projects with well-known dust filter manufacturers, the company develops products that set the market standards in relation to technology, reliability, functionality and value for money.