- **Port size: G1/2 ... 1**
- **Low power consumption**
- **Wear-resistant ceramic rotary action sliding plate**
- **Valve remains on last setting if power lost**
- **Will handle contaminated fluids**

Technical features

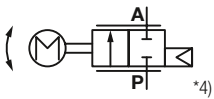
Medium:
Neutral gases and liquids
Operation:
Electric motor operated
Mounting position:
Preferably with drive vertical on top ± 60°
Flow direction:
Determined

Port size:
DN 15, DN 20
Operating pressure:
See table

Fluid temperature:
–10 ... +90°C (+14 ... +194°F)
Ambient temperature:
–10 ... +40°C (+14 ... +104°F)

Material:
Body: Brass (CW617N)
Seat seal: NBR
Internal parts: Oxyd-ceramic

Technical data - standard models

Symbol	Port size	Nominal Diameter	Operating pressure *1)		Flow kv value *2)	Weight	Model *3)
		(mm)	(bar)	(psi)	(m^3/h)	(kg)	
 *4)	Cartridge	15	–0.9 ... 10	–13 ... 145	1.1	0.7	8288500.96xx.xxxxx
	G1/2	15	–0.9 ... 10	–13 ... 145	1.1	0.9	8288200.96xx.xxxxx
	G3/4	20	–0.9 ... 6	–13 ... 87	4.4	1.6	8288300.96xx.xxxxx
	G1	20	–0.9 ... 6	–13 ... 87	4.4	1.6	8288400.96xx.xxxxx

*1) Motor 9651: -0,9 … 16 bar (-13 … 232 psi)
*2) Cv-value (US) ≈ kv value x 1,2
*3) See motor drives for motor Cat no and power supply
*4) Throttle setting with overlap - Not gastight

Motor

Motor type	Standard voltage Tolerance ± 10%	Frequency	Power consumption	Protection class	Torque	Operating time through *5) 90° ∢	Model
	(V)	(Hz)	(VA/W)		(Ncm)	(s)	Model-Motor-No.
D.c. motor	24	-	1,5	IP54	120	10 ... 14	9615.02400
D.c. motor	24	-	1,5	IP54	120	10 ... 16	9650.02400
D.c. motor	24	-	2,5	IP54	120	13 ... 16	9651.02400
Synchronmotor	24	50	3	IP54	120	10	9636.02450
Stepping motor	24	*6)	5	IP54	120	10	9638.02400

*5) Operating time depends on operating pressure
*6) Nominal stepping frequency 200 Hz

Note! All motor drives fulfil the requirements of the generic standards for electromagnetic compability (EN 61000-6-3:2007 + A1:2011 and EN 61000-6-2:2005) to Directive 2004/108/EC.

Limit switch service life: >100,000 cycles

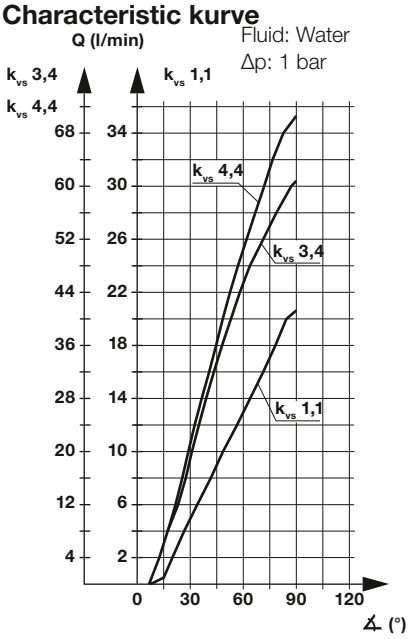
Option selector

8288★★★.★★★★.★★★.★★

Port size	Substitute
G1/2	**2**
G3/4	**3**
G1	**4**
Cartridge	**5**
Valve options	**Substitute**
Seat seal FPM, control discs for kvs 1.1	**60**
Seat seal EPDM, control discs for kvs 1,1	**61**
Control discs for kvs 3,4 pmax. 6 bar, only for G1/2 and cartridge models	**62**
Seat seal EPDM, control discs for kvs 3,4 pmax. 6 bar, only for G1/2 and cartridge models	**64**
Oxygen model, assembled without oil and grease, Seat seal FPM, Valve in shut-off position not gastight. BAM-certificate not available.	**75**

Frequency	Substitute
See table frequencycodes	**xx**
Voltage	**Substitute**
See Voltage codes	**xxx**
Actuators options	**Substitute**
See table motors	**96xx**

Characteristic kurve



Further technical data for DC motors

Model 9615, 9624
Motor with feedback potentiometer for servo-amplifier

Feedback potentiometer	
Resistor	1 kΩ
Resistor tolerance	± 20 %
Max wiper current	1 mA
Power rating	0,1 W

Only part of the potentiometer's range is used.

Further technical data for DC motors

Model 9638
Operation of the drive is possible via a stepper motor control electronics only.

Motor	bipolar
Power/phase	0.4 A constant current
Stride frequency	200 Hz
Resistance per phase	9 Ohm
Inductance per phase	12 mH
Steps for opening angle of 90°	2028

Further technical data for the motor drive with integrated position controller

Model 9650 and 9651
The set point input can be set to the required signal range with 2 jumpers.

Power supply residual ripple	Max. 1.2 Vss
Set point input	0 ... 10 V J1, J2 not inserted 0 ... 20 mA J1 inserted, J2 not inserted 4 ... 20 mA J1, J2 inserted
Ripple of the input signal	Max. 40 m Vss with voltage signal Max. 0,08 m Ass with current signal
Input resistance	200 kOhm with voltage signal 500 kOhm with current signal
Auxiliary voltage for external potentiometer	12 V ± 3 % max. 10 mA

If the load torque exceeds a peak value of 300 Ncm even for a short period, the electronics will switch off the drive and thus protect it from overloading. This error status is signalled by the illumination of a red ALARM LED on the circuit board. A brief interruption to the supply voltage confirms the error.

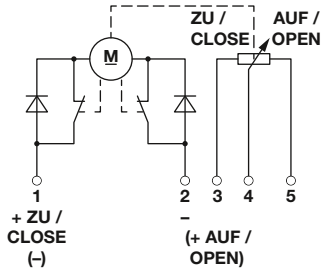
Wiring diagrams

d.c. motor 9615	
Wiring	
+ to 1 – to 2	Direction of operation CLOSE
+ to 2 – to 1	Direction of operation OPEN

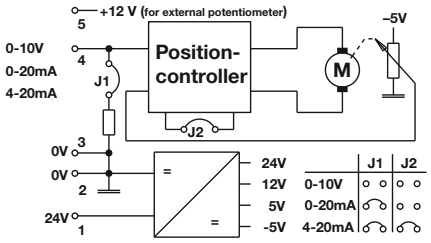
Cutoff at limits provided by microswitches
Resistance between 3 and 4:

minimum value – valve closed

maximum value – valve opened

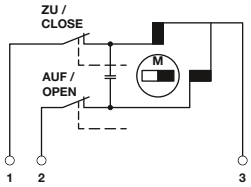


d.c. motor 9650 and 9651	
Pin 1	Power supply 24 Volt
Pin 2	Power supply 0 Volt
Pin 3	Input control voltage 0 Volt
Pin 4	Input control voltage 0 – 10 V / 0 (4) – 20 mA
Pin 5	Output/auxiliary +12 Volt

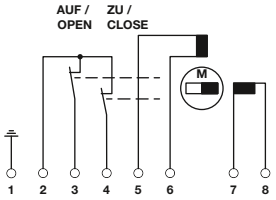


Synchronous motor 9636	
Wiring	
2 to 1 and 3 2 unused	Direction of operation CLOSE
2 to 2 and 3 1 unused	Direction of operation OPEN

Cutoff at limits provided by microswitches



Stepping motor 9638	
Wiring	
1	Motor frame (possibly for screening)
2	Reference potential for contacts
3	Limit feedback signal (OPEN) contact opened at limit
4	Limit feedback signal (CLOSED) contact opened at limit
5 and 6	Connections for phase 1
7 and 8	Connections for phase 2



Notes on choice of motor

Buschjost offers various valve designs and a choice of DC, synchronous and stepper motors catering for the wide range of applications of the motorised valve and the customer‘s needs.

The mechanical contacts of DC motors make them unsuitable for control functions involving a large number of small adjustments. The AC synchronous motors last longer thanks to their absence of contacts. A stepper motor has to be used where frequent and/or fine adjustment is required. The following table shows the characteristics of the components used.

Motor design		Motor life (running life) (Count 90° cycle)	Recommended pulse duration	Recommended interval without current during reversal in direction of rotation
		up to	(ms)	(ms)
d.c. motor	9615	90.000	> 100	600
d.c. motor	9650 and 9651	90.000	-	-
Synchronous motor	9636	180.000	> 100	40
Stepping motor	9638	180.000	Stepping frequency 200 Hz	-

Further drive models and electronic controllers available on request

Flow regulation kit available on request

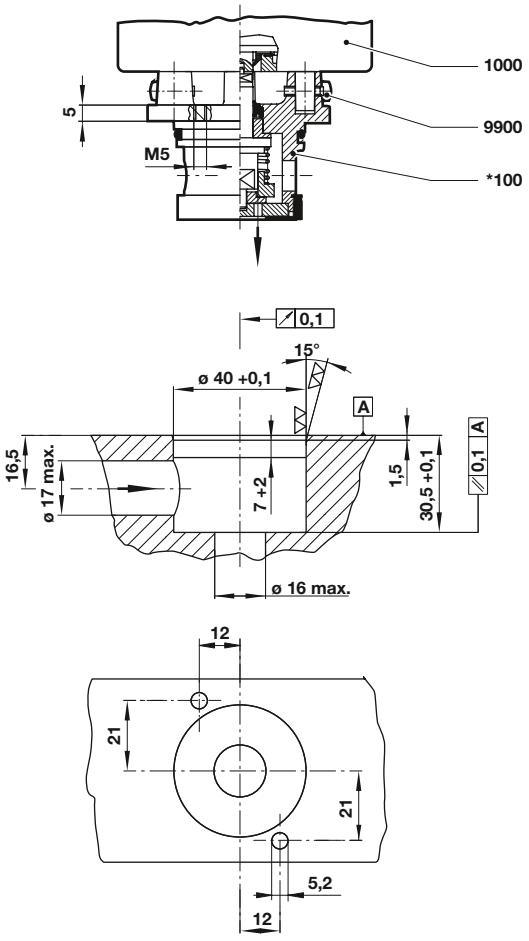
Section View

8288500.96xx, Cartridge

No.	Description
*100	Valve cartridge
1000	Motor drive
9900	Cheese-head screw

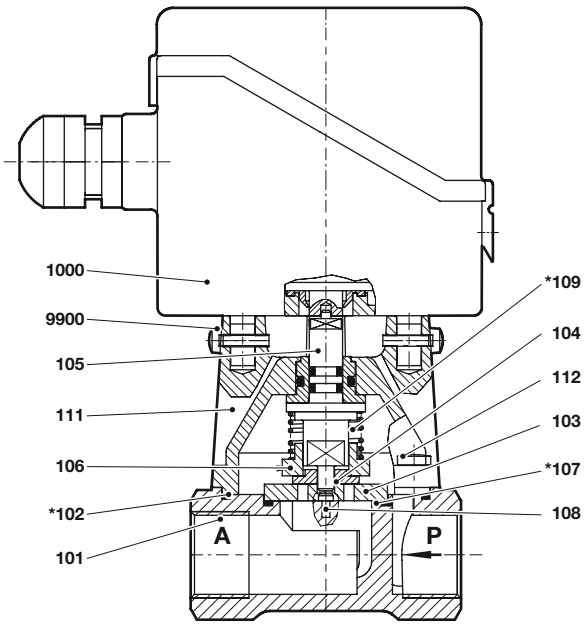
* These individual parts form a complete wearing unit.

When ordering spare parts please state Cat no and series no.

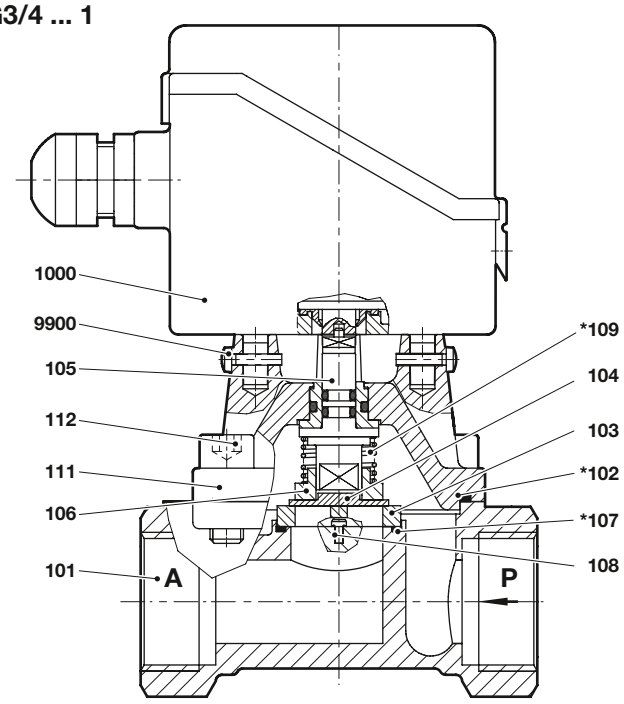


Section View

G1/2



G3/4 ... 1



No.	Description
101	Valve body
***102**	O-ring
103	Disc
104	Disc
***105**	Valve spindle
106	Holder
***107**	O-ring
108	Pin
***109**	Compression spring
111	Body cover
112	Flat head screw (G1/2) Allen head screw (G3/4 ... 1)
1000	Motor drive
9900	Fillister-head screw

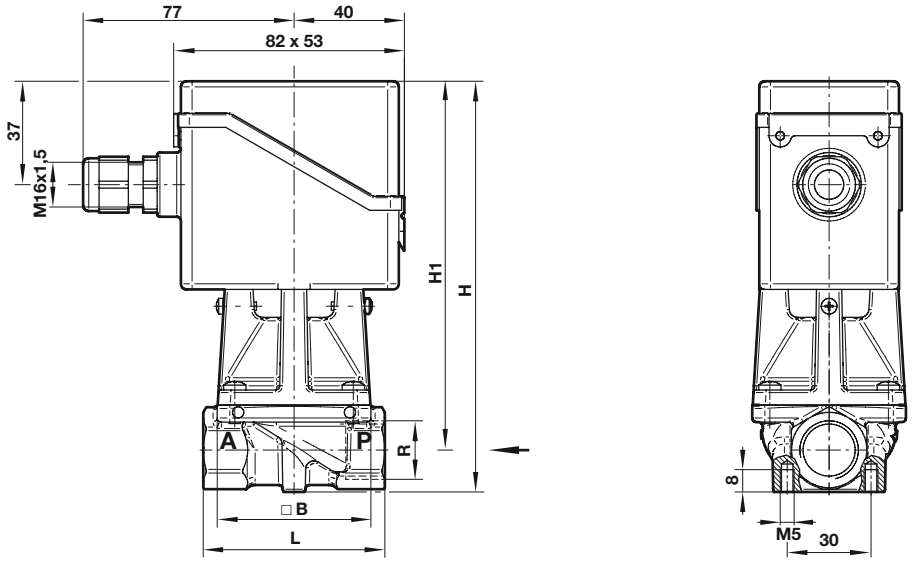
* These individual parts form a complete wearing unit.

When ordering spare parts please state Cat no and series no.

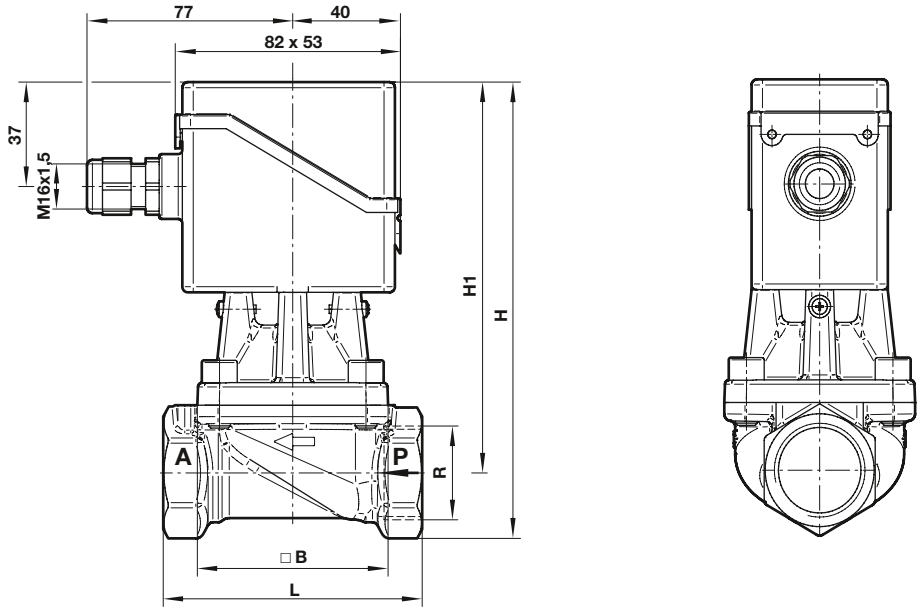
Dimensions

Dimensions in mm
Projection/First angle

up to G1/2



G3/4 ... 1



Port size R	□B max. depth	H	H1	L	Model
G1/2	55	147	134	65	8288200.96xx.xxxxx
G3/4	70	164	140	95	8288300.96xx.xxxxx
G1	70	164	140	95	8288400.96xx.xxxxx

Note to Pressure Equipment Directive (PED):

The valves of this series are according to Art. 3 § 3 of the Pressure Equipment Directive (PED) 97/23/EG. This means interpretation and production are in accordance to engineers practice well-known in the member countries.

The CE-sign at the valve does not refer to the PED. Thus the declaration of conformity is not longer applicable for this directive.

Note to Electromagnetic Compatibility Guideline (EEC):

The valves shall be provided with an electrical circuit which ensures the limits of the harmonised standards EN 61000-6-3:2007 and EN 61000-6-1:2007 are observed, and hence the requirements of the Electromagnetic Compatibility Guideline (2004/108/EEC) satisfied.