

2/2-Way; G 3/8" – 1/2"; True Union ø 16 – 20 mm; PN 0.5 – 6.0 bar



Advantages/Benefits



- ▶ Low power consumption, no relay necessary when used on a PLC
- ▶ Medium is separated from the actuator system
- ▶ Low weight and robust
- ▶ Long service life

Design/Function

Type 6642 is a servo-assisted 2/2-way solenoid valve with a separating servo diaphragm and a plastic body. Its pilot valve is a rocker valve type 6126.

The valve is normally closed by spring force. Energized, the solenoid opens the pilot valve first. Then the medium pressure opens the valve against the pressure drop above the diaphragm.



Optimised point-to-point connection between
Burkert-Sensors and Actuators



Ability of communication with conventional
controlling or Fieldbus connections

Applications

Fluids

- Neutral media, oxidizing acids and liquids, saline solutions, oils with additives
- Acids up to middle concentration, alkaline media up to pH 12, washing and bleaching lyes

Applications

- Chemical industry
- Textile machinery
- Cleaning and washing
- On/Off control in process systems
- Medical service

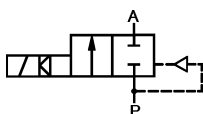
bürkert
Easy Fluid Control Systems

Technical Data Type 6642

Circuit function

Symbol

A 2/2-way, normally closed, with 3-way pilot control and coupled solenoid system



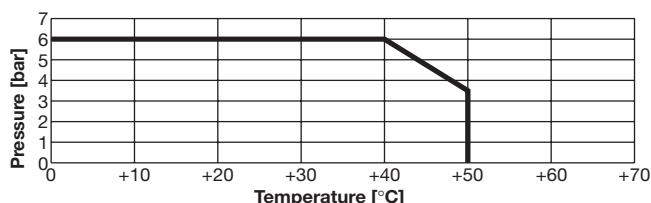
Operating Data (Valve)

Pressure range	0.5 – 6.0 bar
Port connection	
Threaded connection	G 3/8" – G 1/2"
True union	ø 16 mm – ø 20 mm
Fluid	
EPDM sealing	Acids up to middle concentration, alkaline media up to pH value of 12, washing and bleaching lyes
FPM sealing	Neutral media, oxidizing acids and liquids, saline solutions, oils with additives
Medium temperature	
EPDM sealing	0° up to +50°C
FPM sealing	0° up to +50°C
Ambient temperature	0° up to +40°C
Max. viscosity	21 mm ² /s
Flow rate (Kv value water) [m ³ /h]	Measured at +20°C, 1 bar pressure at valve inlet port and open outlet port
Pressure rate [bar]	Overpressure to atmospheric pressure
Response times [ms]	Measured at +20°C, 6 bar pressure at outlet port
Opening pressure raise	0% to 90%
Closing pressure drop	100% to 10%
Installation	as required, but preferably with solenoid system upright

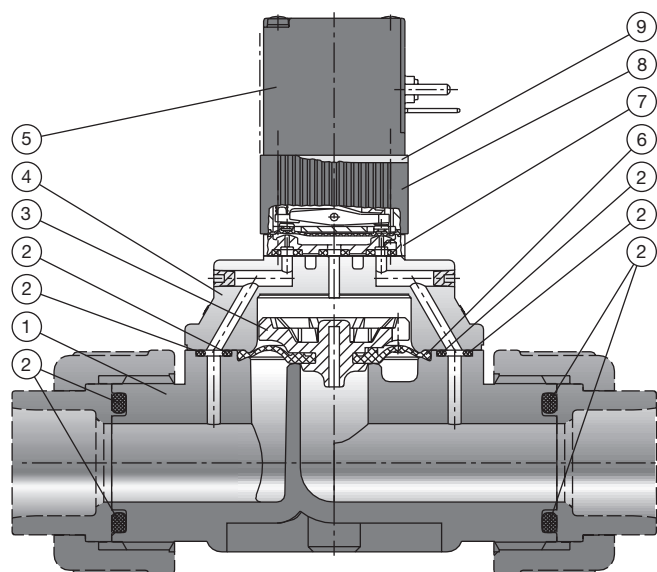
Operating Data (Actuator)

Operating voltages		
DC	24 V	
UC	110 – 120 V and 230 – 240 V (for 24 V/AC, use cable plug with rectifier and varistor)	
Voltages tolerance	±10 %	
Power consumption	DC	UC
Inrush and hold	3.4 W	4 W
Duty cycle	100% continuously rated up to 15 c.p.m.	
Cycling rate	up to 15 c.p.m.	
Electr. connection	Tag connectors sideways acc. to DIN 43650, Form C	
	Tag connectors upwards for 110/230 V UC	
Cable plugs		
Standard delivery	With type 2506, 0 – 250 V (others, please see accessories)	
EaseOn technology	Type 2510	

Pressure-Temperature Diagram



Materials



1	Valve body:	PVC
2	O-rings:	FPM and EPDM
3	Diaphragm support and holder:	PVDF
4	Cover:	PVC
5	Coil:	PA
6	Diaphragm:	FPM and EPDM
7	Pilot flange:	PEEK
8	Pilot valve body:	PPS
9	Isolating plate:	Stainless Steel 1.4310

Plastic Solenoid Valve, Servo-Assisted, 0.5 – 6.0 bar

General Purpose

Type 6642

Specifications - Ordering Chart (Other Versions on Request)

24 V DC Version with Standard Cable Plug Type 2506 - without Connector Sets (see Accessories)

Seal Material EPDM, Temperature Range 0° up to +50°C, Pressure Range 0.5 up to 6.0 bar

Circuit Function	Orifice DN [mm]	Port Connection	Kv-Value [m³/h]	Response Times		Weight [kg]	Item-No. Voltage		
				Opening [ms]	Closing [ms]		24 V/DC	110 – 120 V/UC	230 – 240 V/UC
A	10	see	1.8	200 – 400	400 – 600	0.15	142 165 V	142 166 W	142 167 X
	13	accessories	4.0	200 – 400	400 – 600	0.20	142 177 Z	142 178 A	142 179 B

24 V DC Version with Standard Cable Plug Type 2506 - without Connector Sets (see Accessories)

Seal Material FPM, Temperature Range 0° up to +50°C, Pressure Range 0.5 up to 6.0 bar

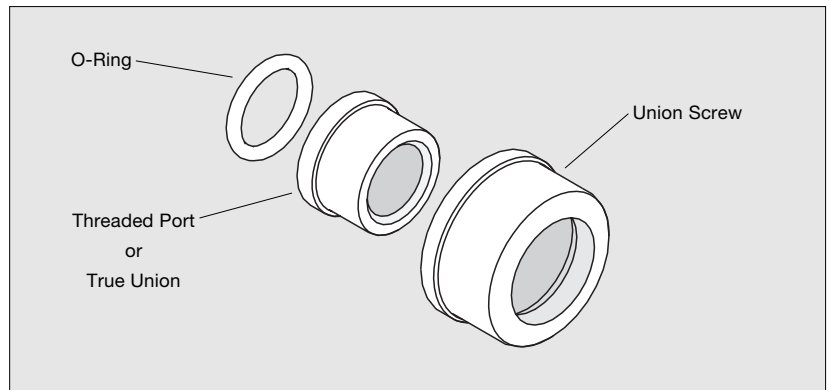
Circuit Function	Orifice DN [mm]	Port Connection	Kv-Value [m³/h]	Response Times		Weight [kg]	Item-No. Voltage		
				Opening [ms]	Closing [ms]		24 V/DC	110 – 120 V/UC	230 – 240 V/UC
A	10	see	1.8	200 – 400	400 – 600	0.15	142 171 T	142 172 U	142 173 V
	13	accessories	4.0	200 – 400	400 – 600	0.20	142 183 Q	142 184 R	142 185 J

Accessories

Connector Set, Material PVC

Three-Piece Connector Set, Material PVC

Orifice DN [mm]	Port Connection [inch/mm]	Seal Material O-Ring	Item-No. Voltage
10	G 3/8	EPDM	142 417 J
	G 3/8	FPM	142 414 P
	ø 16	EPDM	142 416 R
	ø 16	FPM	142 413 N
13	G 1/2	EPDM	142 423 Q
	G 1/2	FPM	142 420 Z
	ø 20	EPDM	142 422 P
	ø 20	FPM	142 419 U



IMPORTANT!

2 Connector Sets are necessary per valve.

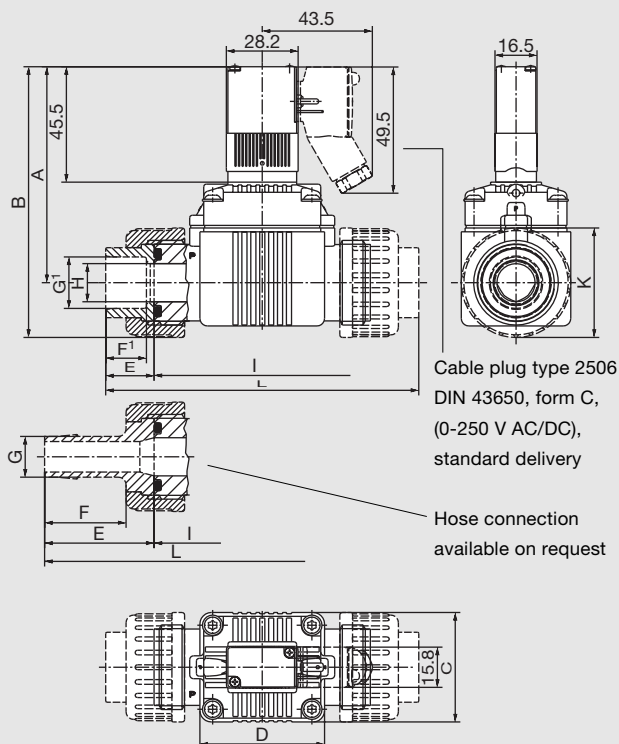
Plastic Solenoid Valve, Servo-Assisted, 0.5 – 6.0 bar

General Purpose

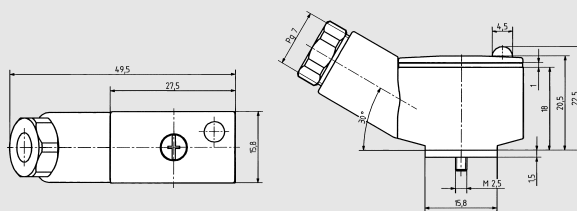
Type 6642

Dimensions [mm]

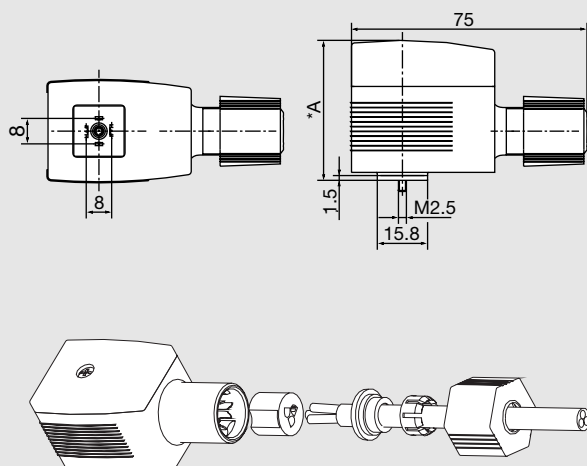
Type 6642 with Standard Cable Plug



Cable Plug Type 2506



Cable Plug Type 2510 (EaseOn Technology)



Orifice DN [mm]	Measurements Threaded Conn.				Measurements True Union				Measurements Hose Conn.				Measurements						
	G' Port Conn. [mm]	E Thread Depth [mm]	F' [mm]	L [mm]	E [mm]	F [mm]	G ø [mm]	L [mm]	E [mm]	F [mm]	G ø [mm]	L [mm]	A [mm]	B [mm]	C [mm]	D [mm]	H ø [mm]	K ø [mm]	I [mm]
10	G 3/8	17.0	13.0	107.0	17.0	14.0	16.2	107.0	42.0	32.0	14.0	157.0	78.5	96.0	32.0	32.0	10.5	35.0	73.0
13	G 1/2	19.0	13.0	123.0	19.0	16.0	20.2	123.0	43.0	32.0	16.0	171.0	85.0	106.5	43.0	49.0	15.0	43.0	85.0

Ordering Chart for Accessories

A wide selection of further cable plugs is available (see special data sheets type 2506 and 2510)