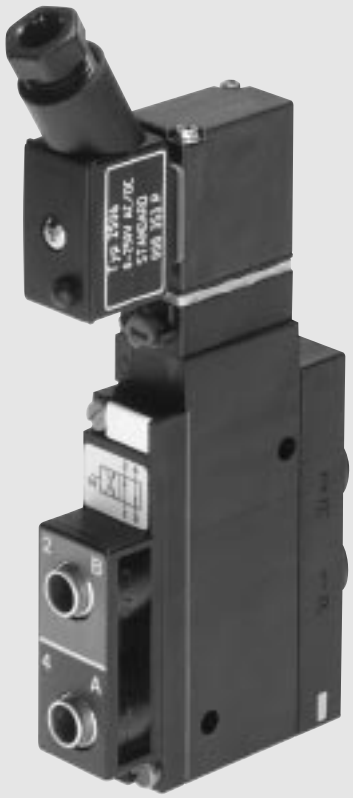
**3/2 and 4/2 multi-way valves; servo-assisted;
DN 4; flow rate: 300 l/min; G 1/8 legris ø 6 mm port connections**



Advantages / Benefits

- **Optimal system solutions due to high level modularity**
- **High flow rate at compact design**
- **Long service life even with non-lube conditions**
- **With manual override**
- **Various options for the ports**
- **High switch reliability**
- **Wide range of cable plugs with circuitry as accessories**
- **Low weight**

Design/Function

Type 5470 includes high switch reliable diaphragm seat valves as 3/2 and 4/2 way version. The valve consists of three modules, valve body with servo-diaphragm, plungers and seat seals as well as numerous connection possibilities for the ports.

The body and valve internal parts are made of high quality thermoplastic, the return spring is made of Stainless Steel.

A 16 mm rocker solenoid valve type 6106 with rectifier is used as pilot.

Tag connectors are used as electrical contact (acc. DIN 43 650 Form C) with the cable plug type 2506.

Type 6106 impulse version is a bistable valve used as pilot valve for type 5470. The operation has to be done through external pole reversal (e.g. PLC).

The advantages of the impulse version are functional safety at short time power failure, saving of energy and low heat generation.

It is applicable for switching systems with impulse control.

Applications

Fluids

Lubricated and unlubricated air, neutral gases

Applications

Control valves for pneumatic linear and rotary actuators (actuator systems) preferably for

- Food and beverage industry
- General processing industry
- Packing machine manufacturers.
- Textile industry
- Machine tool manufacturers
- Wood working machine manufacturers

bürkert
Easy Fluid Control Systems

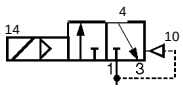
Multi-Way Valves for Pneumatics
servo-assisted, 18 mm wide

Type 5470
Single Valve

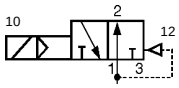
Technical data type 5470

Circuit functions

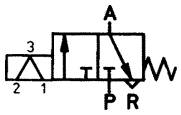
C 3/2 way valve,
when de-energized,
outlet port exhausted



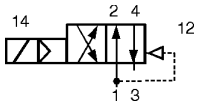
D 3/2 way valve,
when de-energized,
port 2 pressurized



C 3/2 way valve,
with **impulse** at terminal 1
outlet port A exhausted,
with **impulse** at terminal 2
outlet port A pressurized



G 4/2 way valve
when de-energized,
pressure inlet port 1 connected
to outlet port 2,
outlet port 4 exhausted



Specifications

Circuit function	Orifice [mm]	Flow rate[1] QNn-value air [l/min]	Pressure range[2] [bar]
C (3/2)	4,0	300	2 - 10
D (3/2)	4,0	300	2 - 10
G (4/2)	4,0	300	2 - 10

[1] Measured with 6 bar upstream pressure and 1 bar pressure drop across the valve and at +20 °C.
[2] All pressures quoted are gauge pressures with respect to the prevailing atmospheric pressure.

Valve specifications

Body material	PA (Polyamide)
Valve internal parts	Ultramid
Return spring	Stainless Steel
Seal material	NBR
Fluids	Lubricated, unlubricated compressed air, neutral gases
Media temperature	-10 up to +50 °C
Ambient temperature	-10 up to +55 °C
Port connections 1 to 4 (variation)	• Threaded port G 1/8 • Plug-in coupling ∅ 6 mm • Screwed tube coupling SL 6/4 mm

Response times [3] [4]

Opening	DC	15 ms	AC*	15 ms
Closing	DC	12 ms	AC*	20 ms

* = with rectifier

Response times for impulse versions
Minimum duration of impulse:

Release coil (tag 1 and 3)	20 ms
Operating coil (tag 2 and 4)	20 ms

[3] Measured at connection 2; time from electrical switching to pressure increase to 90 % (opening) or pressure drop to 10 % (closing) of operational pressure of 6 bar.
The valves given apply for DC and AC.
[4] When using electronics (diodes for controlling LEDs or for rectifying), the closing time is delayed 8 up to 10 ms.

Solenoid specifications

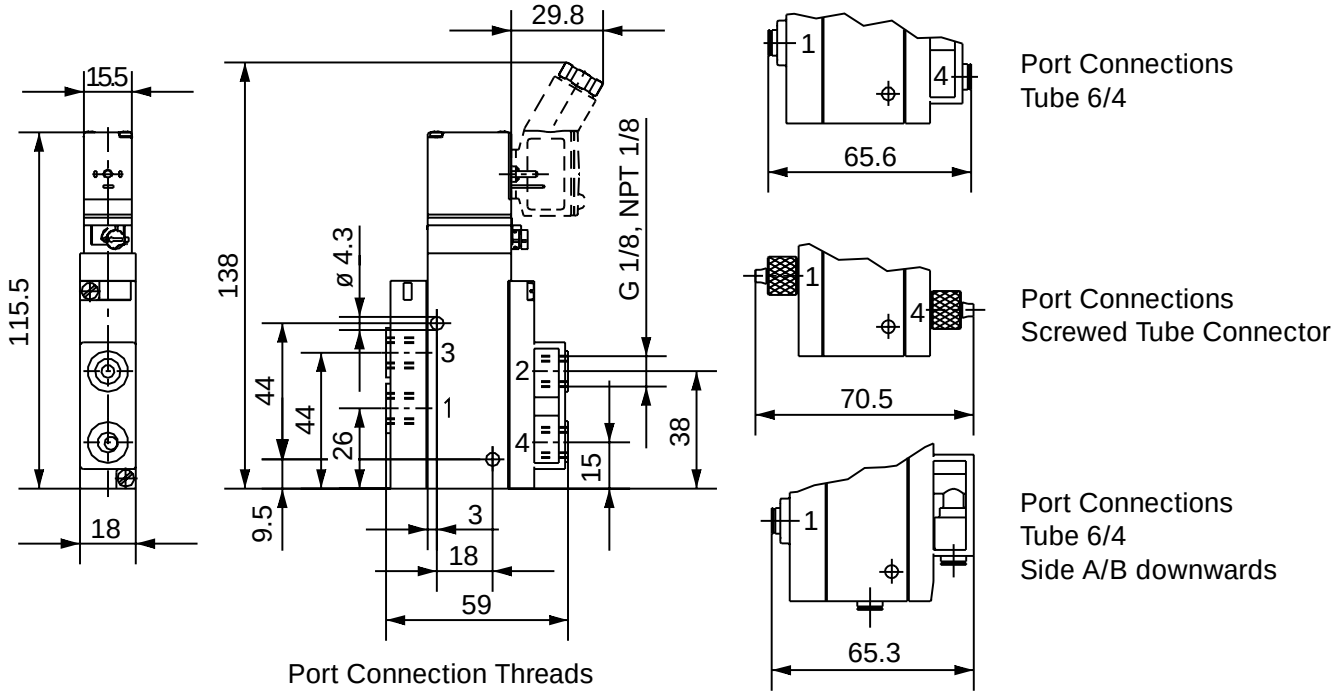
Operating voltage	24 V DC 24 V impulse (external pole reversal necessary) 110-120 V DC 220-240 V DC (for alternating current cable plug type 2506 with rectifier necessary)[4]
Voltage tolerance	±10 %
Electr. power consumption	2 W, 3 W
Duty cycle	100 % continuously rated
Electr. connection	tag connectors acc. DIN 43650 Form C, for cable plug type 2506 sidewards
Rating	IP 65 (with cable plug)
Ex-approval	(see data sheet Ex-versions)

Installation

Mounting position: any, preferably solenoid system upright

Dimensions [mm]

3/2 way valves, circuit function C, D and G, tag connectors in front or at the back[1)]



Port Connection Threads

Operation of impulse versions

- Standard cable plug type 2506 - through external pole reversal (e.g. PLC)
- Cable Plug - with internal pole reversal

Ordering chart valves type 5470 Single valve (other versions on request)

Scope of delivery: All valves with manual override and with NBR seal;
with cable plug (see accessories)
For DC current cable plug 2506 Item No. 008 353 P (standard)
For AC current cable plug 2506 Item No. 008 412 T

Electr. connection: Sidewards

Circuit function	Orifice air [mm]	Flow rate QNn value [l/min]	Pressure range [bar]	Port connections 4 and 2	Voltage/ frequency [V/Hz]	Electrical power consumption [W]	**Item No.**
C	4.0	300	2 - 10	Plug-in coupling	24/DC	2	136 755 W
				ø 6 mm	110-120/DC	3	136 756 X
				downwards	220-240/DC	3	136 757 Y
D	4.0	300	2 - 10	Plug-in coupling	24/DC	2	136 758 H
				ø 6 mm	110-120/DC	3	136 759 A
				downwards	220-240/DC	3	136 760 F
G	4.0	300	2 - 10	Screwed tube	024/DC	2	136 746 V
				connector SL6/4 mm	110-120/DC	3	136 747 W
				in front	220-240/DC	3	136 748 F
				Threaded port G 1/8	024/DC	2	136 749 G
				in front	024/Impulse	1	139 849 G
					110-120/DC	3	136 750 D
					220-240/DC	3	136 751 S
				Plug-in coupling	024/DC	2	136 752 T
				ø 6 mm, in front	024/Impulse	1	139 850 D
					110-120/DC	3	136 753 U
					220-240/DC	3	136 754 V

*) For AC current the cable plug type 2506 with rectifier must be used, see accessories.

Ordering chart accessories

Accessory part	Characteristics	**Item No.**
Cable plug type 2506 1)	without circuit, 0 - 250 V	008 353 P
Cable plug type 2506 1)	with rectifier and varistor, 12 - 240 V	008 412 T
Cable plug type 2506 1)	with LED, 12 - 24 V	008 402 A
Cable plug type 2506 1)	with LED and varistor, 12 - 24 V	008 408 Q
Cable plug type 2506 1)	with LED, rectifier and varistor, 12 - 24 V	008 354 Q
Cable plug type 2506 1)	with LED, rectifier and varistor, 200 - 240 V	008 356 J

1) With these accessories, only a minimum of possible cable plugs with circuit are being mentioned. For other versions see data sheet type 2506.
A flat seal and a fixing screw are part of the delivery scope of a cable plug.

Cable plug type 2506 (pin assignment acc. DIN 43650, Form C)

