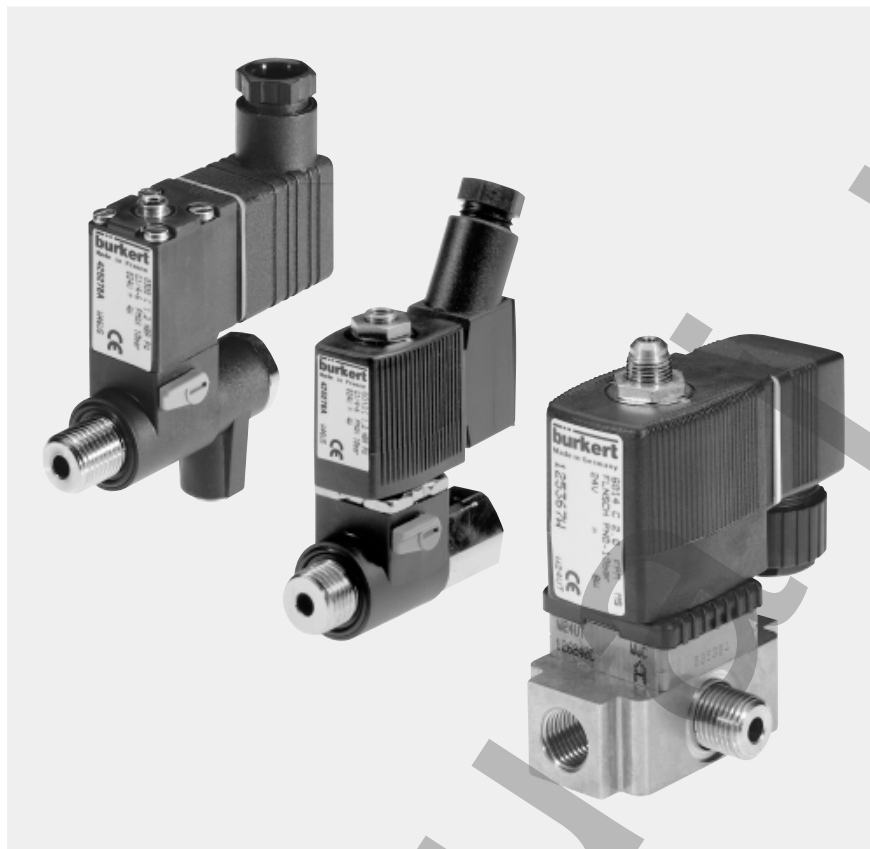


3/2-Way; 1/8" and 1/4" Connection; Plug-in connector ø6 mm



Advantages/Benefits

- ▶ Lower Total Cost of Ownership
- ▶ Direct and quick mounting on process valves
- ▶ Low power consumption
- ▶ Direct PLC connection
- ▶ Unlimited mounting positions
- ▶ Coil can be changed easily with valve in place
- ▶ Coil can be locked in 4 x 90° positions or freely moved in between, as required
- ▶ Compact design
- ▶ Wide range of cable plugs and options available
- ▶ CE Approval

Design/Function

The banjo valve types are pneumatic single pilot valves designed for a quick mounting onto pneumatic actuators (e.g. process valves). Simply screwed into the pressure port of the actuator the banjo valve can take up any position as the valve body as well as the pressure inlet are rotatable. In addition, the banjo valve Types 6012 and 6014, based on a modular concept, have a push-over coil, which can be locked in any position.

The banjo valve concept provides flexibility to meet any kind of application requirements. The air flow rate varies from 48 l/min to 120 l/min, the pressure range from 0 up to 232 PSI.

A selection of connection and orifice sizes are offered as well as all three standard types of cable plugs, DIN 43

650 forms A, B, and C. The valve parts are made of polyamide, brass, stainless steel or anodized aluminium. The Banjo valve Type 6014 can be delivered as EEx m II T6 version with molded cable or with terminal box (see extra datasheet banjo valves Ex) and as EEx-ia.



Applications

Fluids

Neutral gases, compressed air

Applications

- Pneumatic control
- Pilot control valve for pneumatic controlled process valves



Mechanical System
(Process + Pilot Valve)

burkert
Fluid Control Systems

Direct Mounting Pilot Valves

For Process Actuation

Type 300/6012/6014

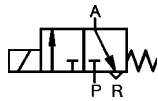
Banjo Valves

Technical Data

Circuit Function

- C** 3/2-way valve,
when de-energized, outlet A
pressure relieved

Symbol



Operating Data (Valve) - Type 300 / 6012

Pressure range	0-140 PSI max. (see specifications)
Port connection Orifice	See specifications 3/64"
Material :	
Valve body	Polyamide (PA)
Banjo bolt	Brass, nickel plated
Seal material	
Type 300	NBR
Type 6012	O-rings: NBR Plunger seal: FPM
Fluid	Neutral gases, e.g. compressed air
Medium temperature	14°F to 212°F
Max. ambient temperature	130°F
Max. viscosity	21 cSt
Response times	
Opening	7-10 ms (AC), 7-12 ms (DC)
Closing	9-12 ms (AC), 7-12 ms (DC)

Operating Data (Actuator) - Type 300 / 6012

Operating voltages	AC 24, 110, 230 V/50 Hz, DC 24V/DC		
Voltage tolerance	±10 %		
Power consumption	AC inrush	AC hold	DC
	9 VA	6 VA/4 W	4 W
Duty cycle	100% continuously rated		
Protection class with cable plug	IP 65		
Electr. connection	Delivery standard Type 300: Cable plug DIN 43 650, Form B Type 6012: Cable plug DIN 43 650, Form C		

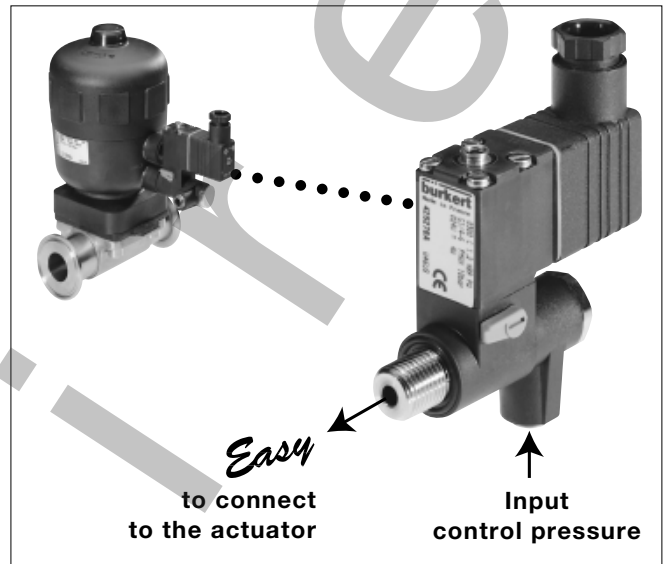
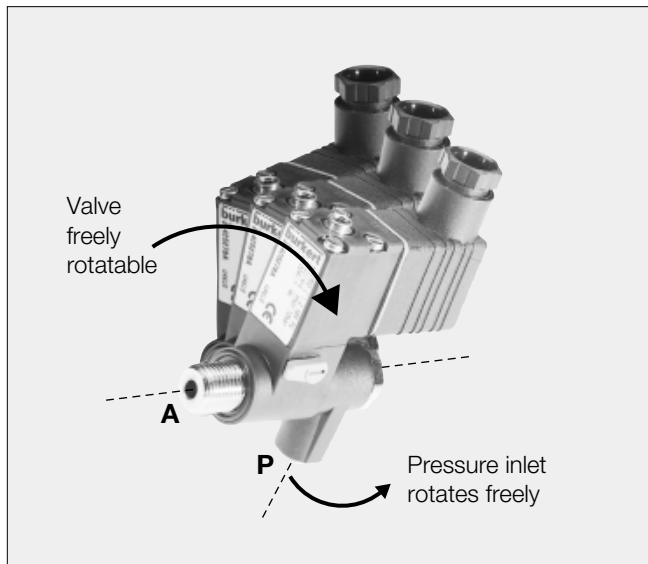
Operating Data (Valve) - Type 6014

Pressure range	0-230 PSI max. (see specifications)
Port connection Orifice	See specifications 1/16" to 5/64"
Material:	
Valve body	Polyamide (PA) or brass
Banjo coupler	Aluminium, anodized
Banjo bolt	Brass, nickel plated
Seal material	FPM
Fluid	Neutral gases, e.g. compressed air
Medium temperature	14°F to 212°F
Max. ambient temperature	130°F
Max. viscosity	21 cSt
Response times	
Opening	1/16" orifice (25ms) 5/64" orifice (18ms)
Closing	1/16" orifice (35ms) 5/64" orifice (22ms)

Operating Data (Actuator) - Type 6014

Operating voltages	AC 24, 110, 230 V/50 Hz, DC 24V/DC		
Voltage tolerance	±10 %		
Power consumption	AC inrush	AC hold	DC
(0-87 PSI)	11 VA	6 VA/ 2W	2W
(0-145 PSI; 0-232 PSI)	24 VA	17VA/ 8W	8W
Duty cycle	100% continuously rated		
Protection class with cable plug	IP 65		
Electr. connection	Delivery standard Type 6014: Cable plug DIN 43 650, Form A		

Installation



Specifications - Ordering Chart (Other Versions on Request)

Type 6012, Seal material NBR, cable plug DIN 43 650 form C, manual override standard



Port connection P A		Orifice [inch]	C _v	SCFM ¹⁾ (air)	Pressure Range [PSI]	Body Material	Power cons. [W]	Item No.			
								Voltage / Frequency [V/Hz]			
NPT 1/4	G 1/8	3/64	.052	1.60	0-140	PA	4	24/DC	24/50-60	120/60	240/60
NPT 1/4	G 1/4	3/94	.052	1.60	0-140	PA	4	427 923 B	427 924 C	428 551 X	428 552 Y
								428 565 V	428 566 W	428 567 X	428 568 G

Type 300, Seal material NBR, cable plug DIN 43 650 form B, manual override



Port connection P A		Orifice [inch]	C _v	SCFM ¹⁾ (air)	Pressure Range [PSI]	Body Material	Power cons. [W]	Item No.			
								Voltage / Frequency [V/Hz]			
NPT 1/4	G 1/8	3/64	.052	1.60	0-140	PA	4	24/DC	24/50-60	120/60	240/60
NPT 1/4	G 1/4	3/64	.052	1.60	0-140	PA	4	429 122 J	429 123 K	429 124 L	429 125 M
								429 118 W	429 119 X	429 120 U	429 121 R

Type 6014, Seal material FKM, cable plug DIN 43 650 form A, manual override standard

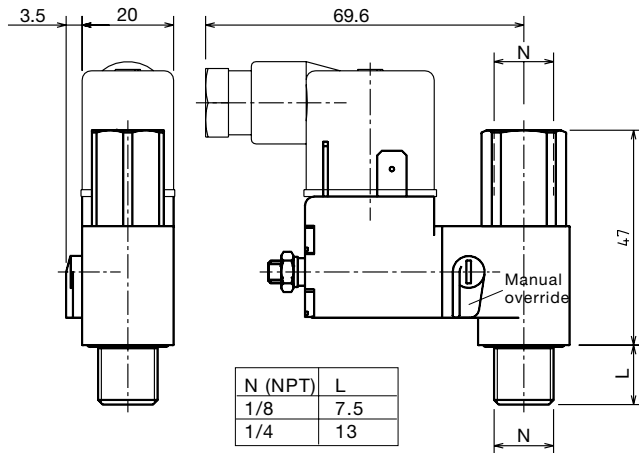


Port connection P A		Orifice [inch]	C _v	SCFM ¹⁾ (air)	Pressure Range [PSI]	Body Material	Power cons. [W]	Item No.			
								Voltage / Frequency [V/Hz]			
NPT 1/4	G 1/8	1/16	.08	2.65	0- 85	PA	2	24/DC	24/50-60	120/60	240/60
NPT 1/4	G 1/8	1/16	.08	2.65	0- 230	Brass	8	429 150 A	429 151 X	429 152 Y	429 153 Z
NPT 1/4	G 1/8	1/16	.08	2.65	0- 230	Brass	8	429 142 W	429 143 X	429 144 Y	429 145 Z
NPT 1/4	G 1/4	1/16	.08	2.65	0- 85	PA	2	429 138 S	429 139 T	429 140 G	429 141 V
NPT 1/4	G 1/4	1/16	.08	2.65	0- 230	Brass	8	429 130 W	429 131 K	429 132 L	429 133 M
NPT 1/4	G 1/8	5/64	.13	2.65	0- 140	Brass	8	429 146 S	429 147 T	429 148 C	429 149 D
NPT 1/4	G 1/4	5/64	.13	2.65	0- 140	Brass	8	429 134 N	429 135 P	429 136 Q	429 137 R

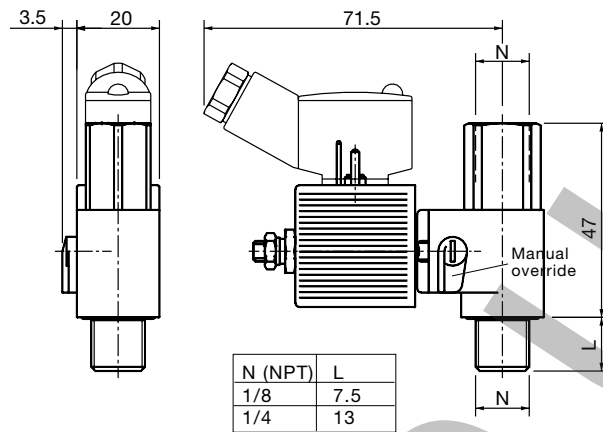
¹⁾ measured at 85 PSI, pressure drop of 15 PSI at 68°F

Dimensions [mm]

Type 300, Port Connection



Type 6012, Port Connection



Type 6014, Port Connection

