Axial Valves

The Parker Legris axial valve is the only valve to incorporate both the **valve and actuation function**. With pneumatic or electro-pneumatic control, it avoids many of the restrictions associated with traditional actuators.

Product Advantages

Optimisation & Safety

- Very compact: up to 50% smaller than valves with separate actuators
- Simple to install: ready-to-use
- Common sub-base for solenoid control
- Automation of the open/close function
- Operation independent of the upstream and downstream pressure in the circuit

Comprehensive Offer

- Two seal materials for a wider chemical and temperature range
- Pneumatic, electro-pneumatic or dual actuation control
- Three versions: normally closed, normally open and double-acting

Performance

- Full flow: low pressure drop
- Excellent pressure/temperature performance
- Compatible with many industrial fluids

Applications

Flow Control
Plastic Injection Moulding
Rubber Industry
Pneumatics
Textile
Printing
Packaging
Robotics

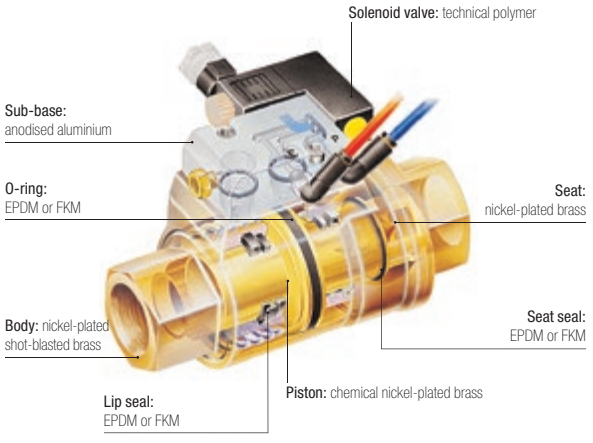
Technical Characteristics

Compatible Fluids	Depending on type of seal – FKM: water, air, oils, greases, etc. – EPDM: hot water, air, steam, etc.
Working Pressure	10 bar max.
Pilot Pressure	NC and NO: 4.2 to 8 bar Double-acting: 3 to 8 bar
Working Temperature	-20°C to +135°C (suffix 20 FKM) -20°C to +120°C (suffix 30 EPDM)

Tightening Torques	Threads	G3/8	G1/2	G3/4	G1	G1¼	G1½	G2
	daN.m	0.15 to 0.25	0.20 to 0.35	0.50 to 0.70	0.50 to 0.70	0.40 to 0.60	0.80 to 1.20	0.80 to 1.20

Reliable performance is dependent upon the type of fluid conveyed, component materials and tubing being used.
Guaranteed for use with a vacuum of 740 mm Hg (97% vacuum).

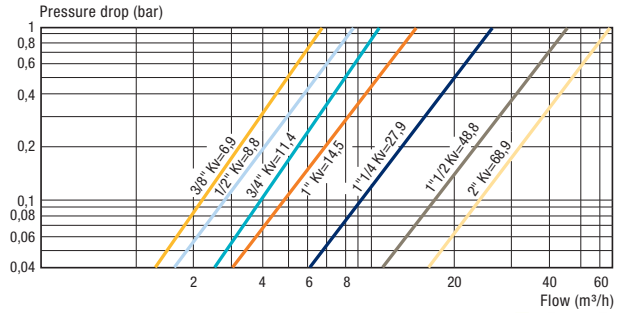
Component Materials



Silicone-free

Flow Curve and Pressure Drop (Kv)

Kv in m³/h (ambient water temperature, under a differential pressure of 1 bar)



Regulations

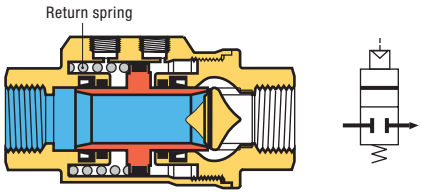
DI: 97/23/EC (module PED A - diameters greater than 25 mm)
DI: 2006/42/EC (Machinery Directive)
DI: 2002/95/EC (RoHS)
RG: 1907/2006 (REACH)
DI: 94/9/EC (ATEX) - for pneumatic operation versions

Axial Valves

Operation

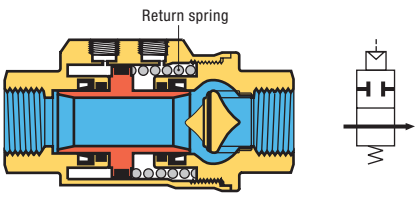
Depending on operational requirement, air is passed into the actuation chamber to open or close the valve.

Normally Closed Axial Valve (NC)



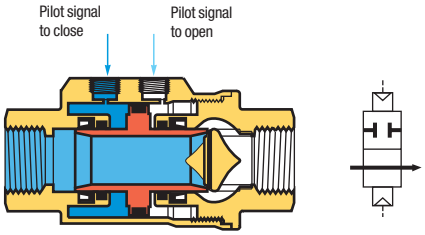
Rest State (valve closed)

Normally Open Axial Valve (NO)

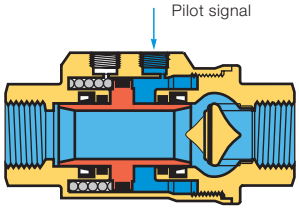


Rest State (valve open)

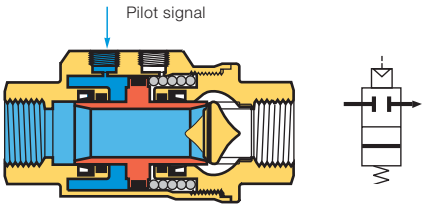
Double-Acting Axial Valve (DA)



Piloted State (valve closed)



Piloted State (valve open)



Piloted State (valve closed)

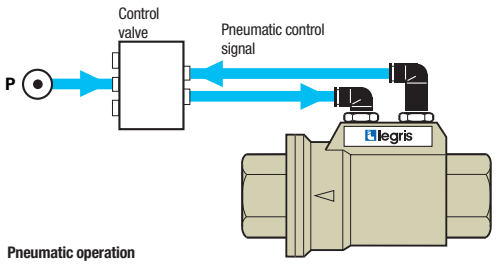
Installation Options

The Parker Legris axial valve offers 3 different control methods dependant on the requirements of the installation:

Pneumatic Control

Example: Double-acting axial valve 4222

- local compressed air control
- for repetitive on/off cycles
- remote control where access to the machine is difficult
- for explosive or explosion prevention areas

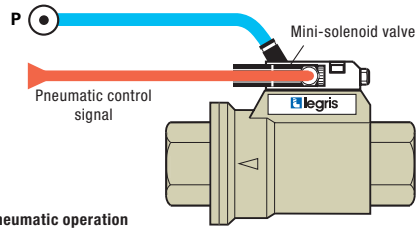


Pneumatic operation

Electro-Pneumatic Control

Example: Normally closed axial valve 4202
+ sub-base and Mini-solenoid valve 4298

- for automated industrial systems requiring remote control
- Namur seating plane solenoid valve

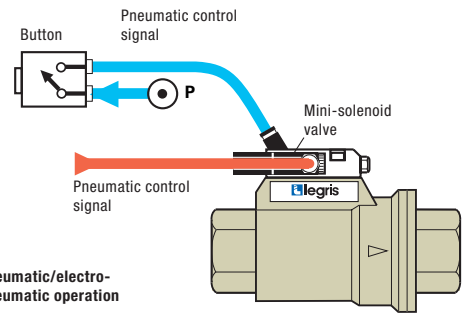


Electro-pneumatic operation

Dual Pneumatic and Electro-Pneumatic Control

Example: Normally open axial valve 4212
+ sub-base and Mini-solenoid valve 4298
+ Pneumatic push-button 4299

- dual control structure
- for increased safety: prevents localised operating errors
- Namur seating plane solenoid valve

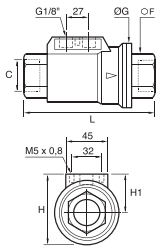


Pneumatic/electro-pneumatic operation

Axial Valves

4202..20 Normally Closed Axial Valve with FKM Seal, Female BSPP Thread

Nickel-plated brass, FKM

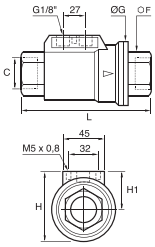


C		F	G	H	H1	L	Kg
G3/8	4202 10 17 20	22	46	54	31	98	0.815
G1/2	4202 15 21 20	27	52	60	35	112	1.093
G3/4	4202 20 27 20	33	64	70	38	135	1.624
G1	4202 25 34 20	41	69	76	41.5	143	2.033
G1 1/4	4202 32 42 20*	50	86	91	48	165	3.266
G1 1/2	4202 40 49 20*	60	96	102	54	180	4.195
G2	4202 50 48 20*	75	109	115	60.5	207	6.465

Pilot port: G1/8
Complete with M5 silencer
*Models with EC marking

4202..30 Normally Closed Axial Valve with EPDM seal, Female BSPP Thread

Nickel-plated brass, EPDM

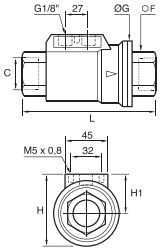


C		F	G	H	H1	L	Kg
G3/8	4202 10 17 30	22	46	54	31	98	0.828
G1/2	4202 15 21 30	27	52	60	35	112	1.097
G3/4	4202 20 27 30	33	64	70	38	135	1.606
G1	4202 25 34 30	41	69	76	41.5	143	2.013
G1 1/4	4202 32 42 30*	50	86	91	48	165	3.315
G1 1/2	4202 40 49 30*	60	96	102	54	180	4.195
G2	4202 50 48 30*	75	109	115	60.5	207	6.360

Pilot port: G1/8
Delivered with a silencer
*Models with EC marking

4212..20 Normally Open Axial Valve with FKM Seal, Female BSPP Thread

Nickel-plated brass, FKM

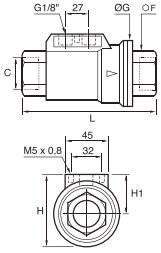


C		F	G	H	H1	L	Kg
G3/8	4212 10 17 20	22	46	54	31	98	0.828
G1/2	4212 15 21 20	27	52	60	35	112	1.096
G3/4	4212 20 27 20	33	64	70	38	135	1.637
G1	4212 25 34 20	41	69	76	41.5	143	2.025
G1 1/4	4212 32 42 20*	50	86	91	48	165	3.301
G1 1/2	4212 40 49 20*	60	96	102	54	180	4.188
G2	4212 50 48 20*	75	109	115	60.5	207	6.555

Pilot port: G1/8
Complete with M5 silencer
*Models with EC marking

4212..30 Normally Open Axial Valve with EPDM seal, Female BSPP Thread

Nickel-plated brass, EPDM



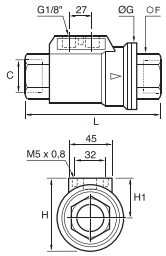
C		F	G	H	H1	L	Kg
G3/8	4212 10 17 30	22	46	54	31	98	0.827
G1/2	4212 15 21 30	27	52	60	35	112	1.152
G3/4	4212 20 27 30	33	64	70	38	135	1.595
G1	4212 25 34 30	41	69	76	41.5	143	1.993
G1 1/4	4212 32 42 30*	50	86	91	48	165	3.301
G1 1/2	4212 40 49 30	60	96	102	54	180	4.775
G2	4212 50 48 30*	75	109	115	60.5	207	6.360

Pilot port: G1/8
Delivered with a silencer
*Models with EC marking

Axial Valves

4222..20 Double-Acting Axial Valve with FKM Seal, Female BSPP Thread

Nickel-plated brass, FKM



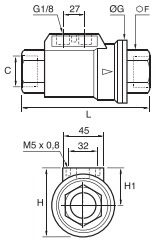
C		F	G	H	H1	L	Kg
G3/8	4222 10 17 20	22	46	54	31	98	0.802
G1/2	4222 15 21 20	27	52	60	35	112	1.050
G3/4	4222 20 27 20	33	64	70	38	135	1.571
G1	4222 25 34 20	41	69	76	41.5	143	1.942
G1 1/4	4222 32 42 20*	50	86	91	48	165	3.058
G1 1/2	4222 40 49 20*	60	96	102	54	180	3.995
G2	4222 50 48 20*	75	109	115	60.5	207	6.275

Pilot port: G1/8

*Models with EC marking

4222..30 Double-Acting Axial Valve with EPDM seal, Female BSPP Thread

Nickel-plated brass, EPDM



C		F	G	H	H1	L	Kg
G3/8	4222 10 17 30	22	46	54	31	98	0.832
G1/2	4222 15 21 30	27	52	60	35	112	1.046
G3/4	4222 20 27 30	33	64	70	38	135	1.662
G1	4222 25 34 30	41	69	76	41.5	143	1.943
G1 1/4	4222 32 42 30*	50	86	91	48	165	3.301
G1 1/2	4222 40 49 30*	60	96	102	54	180	4.260
G2	4222 50 48 30*	75	109	115	60.5	207	6.520

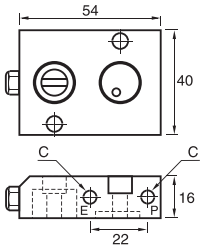
Pilot port: G1/8

Delivered with a silencer

*Models with EC marking

4298 Sub-Base for Solenoid Pilot Valve

Treated aluminium, NBR



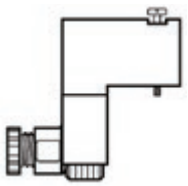
C		Kg
M5x0.8	4298 00 01	0.095

The sub-base is fitted directly to the axial valve and alows the mounting of a 15x15 solenoid valve.

Supplied with 2 fixing bolts, silencer and seats.

4298 Mini-Solenoid Valve 1W/12VA

Anodised aluminium



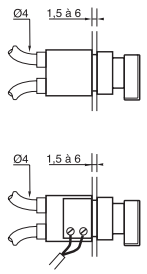
Voltage		Kg
24V = CC*	4298 01 01	0.051
24V ~ CA**	4298 01 02	0.058
110V ~ CA**	4298 02 01	0.051
220V ~ CA**	4298 02 02	0.054

*Direct current

**Alternating current

4299 Pneumatic Button/Electro-Pneumatic

Nickel-plated brass, technical polymer



Contact		Kg
Standard*	4299 01 01	0.090
With key*	4299 01 02	0.110
Standard**	4299 02 01	0.102
With key**	4299 02 02	0.124

Bulkhead fixing hole diameter: Ø22 mm

*1 pneumatic contact

**1 electro-pneumatic contact

Available upon request