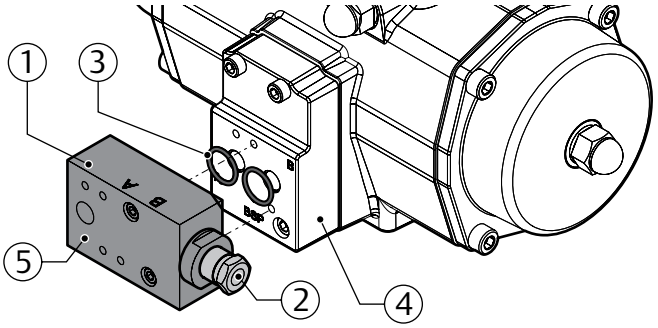
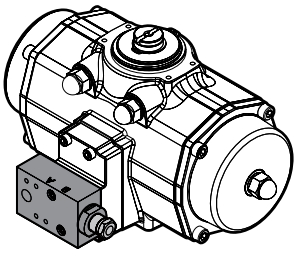
Breather Block / Quick Exhaust

FieldQ Option

Key features

- Provides corrosion protection of the actuator's spring chambers.
- Durable hard anodize aluminium design.
- Suitable for indoor and outdoor use.
- Easy installation on actuators with a VDI/VDE 3845 (NAMUR) solenoid interface.
- Suitable for piped or direct mounted solenoid valves.
- Available with 1/4" NPT or 1/4" BSP pneumatic connection.
- Optional available with speed control throttle.
- Comes with a built-in quick exhaust function.





Description

The Breather Block (1) is a unique design and has two basic functions:

Breather function

- The breather function can be used on applications where the actuator is located in a corrosive atmosphere which would otherwise be sucked into the actuator through the “B” port during the spring stroke and corrode the actuator's internals.

Quick exhaust function

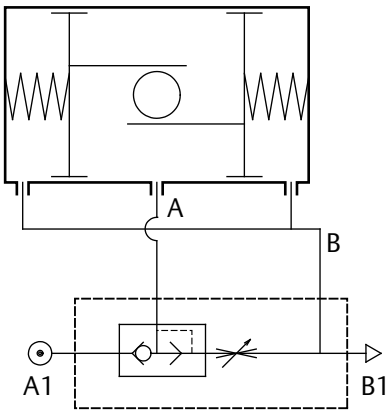
- The breather block has an built-in quick exhaust function to improve the spring stroke time (see table page 2).
  An optional speed control throttle (2) can be provided to reduce the closing time.

Installation

The Breather Block (1) comes with seals (3) metric or imperial screws and is fixed directly onto the VDI/VDE3845 NAMUR adaptation plate (4) and has a further NAMUR interface (5) so that a suitable NAMUR solenoid valve may be directly mounted, or tubing can be connected to the 1/4" (NPT ofr BSP) port in the case of a remote operated solenoid valve.

Operation

Air entering the actuator at A1 moves the shuttle valve to the right and allows the actuator to operate normally, displaced air from “B” is exhausted through “B1”.
At the spring stroke, air is exhausted at “A1” and the shuttle valve moves to the left allowing the air from “A” to first fill the spring chamber through “B” then to exhaust to atmosphere at “B1”.

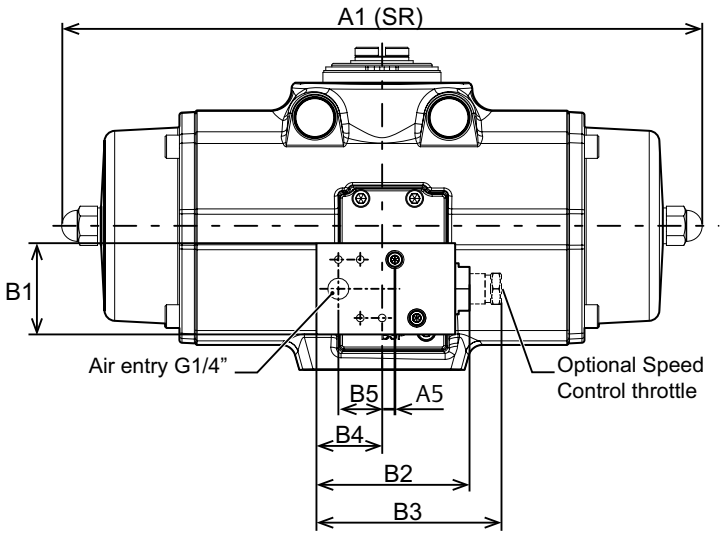


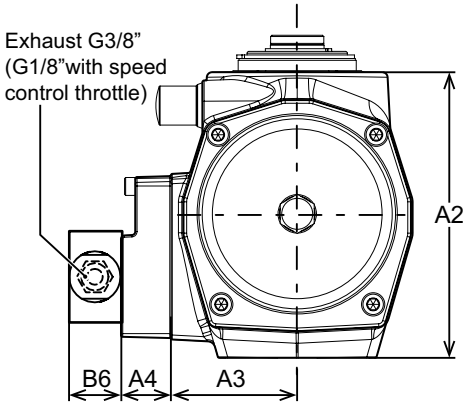
General Specification

Housing: Aluminium alloy
Throttle: Brass
Finish: Hard anodized, impregnated with PTFE
Pressure: 1 to 8.3 barg / 14.5 to 120 psig
Media: Air, dry or lubricated or non-corrosive gas (not suitable for oxygen service)
Temperature: -20 °C to 80 °C / -4 °F to +176 °F
Air flow:
- Air stroke: Kv: 0.8 (m^3/h) / Cv: 0.9
- Spring stroke: Kv: 1.9 (m^3/h) / Cv: 2.2

Connections	Metric	Imperial
Air entry	G1/4"	1/4" NPT
Solenoid mounting	4x M5x10	4x 10-24UNC x 0.31"
Air exhaust	G3/8" (or G1/8" with speed control)	

Breather part numbers	
VA302.00.000	1/4" BSP/Metric (Include Speed Control throttle)
VA302.00.001	1/4" BSP/Metric
VA302.00.002	Speed Control throttle
VA302.00.010	1/4" NPT/UNC (Include Speed Control throttle)
VA302.00.011	1/4" NPT/UNC





Actual	A1 (SR)		A2		A3		A4	A5	B1	B2	B3	B4	B5	B6
Size	mm	inch	mm	inch	mm	inch	mm/inch	mm/inch	mm/inch	mm/inch	mm/inch	mm/inch	mm/inch	mm/inch
40	204	8.03	104	4.09	45	1.77								
65	249	9.8	117	4.61	51	2.01								
100	267	10.51	141	5.55	58	2.28								
150	310	12.2	150	5.91	65	2.56								
200	346	13.62	161	6.34	68	2.68	30/1.18	6.25/0.246	50/1.97	85/3.35	102/4.02	43/1.69	31/1.22	29/1.14
350	387	15.24	191	7.52	89	3.5								
600	416	16.38	245	9.65	105	4.13								
950	460	18.11	276	10.87	117	4.61								
1600	568	22.36	337	13.27	134	5.28								

Cycle times FieldQ with NAMUR Plate + Breather Block with Quick Exhaust									
Operating times in seconds (at 80 PSI with average load)									
Actuator Size	**Q40**	**Q65**	**Q100**	**Q150**	**Q200**	**Q0350**	**Q0600**	**Q0950**	**Q1600**
Air Stroke	0.40	0.50	0.53	0.61	0.78	1.13	1.68	2.63	4.11
Spring Stroke	0.36	0.42	0.44	0.49	0.58	0.80	1.12	1.69	2.57