

'FS' SERIES

PULSE JET VALVES



FS Series

DESCRIPTION

Very high performance diaphragm valve with flanged inlet port and slide seal outlet port for easy valve installation and removal. Available with integral pilot or as remotely piloted valve. Outlet at 90° to inlet.

SUITABLE FOR

Dust collector applications, in particular for reverse pulse jet filter cleaning including bag filters, cartridge filters, envelope filters, ceramic filters, and sintered metal fibre filters.

CONSTRUCTION

Body: Diecast aluminium or 316 stainless steel

Ferrule: 304 SS

Armature: 430FR SS

Seals: Nitrile or Viton (reinforced)

Spring: 304 SS

Screws: 302 SS

Outlet Slide Seal: EPDM or Viton

Diaphragm Seat: PA-6 (standard), Viton coated mild steel

Refer to Q Series Solenoid product data sheet for solenoid construction details.

OPERATION

Recommended

on time range: 50–500 ms

Recommended time

between pulses: 1 minute or greater

MAINTENANCE

Before conducting any maintenance activity on the system ensure that components are fully isolated from pressure and power supplies. Pressure and power should not be reapplied until the valve has been fully assembled.

Diaphragm and pilot inspection should be conducted annually.

APPROVALS

- Atex II 2D Mechanical (RCA Only)
- CSA (U.S) C22.2 No 139–1982, UL 429 (CA & RCA)
- C-Tick (CA)

- EMC 2004/108/EC (CA)
- Low Voltage Directive 2006/95/EC (CA)

INSTALLATION

1. Prepare inlet flange and blowtube pipes* to suit valve specification. Avoid installing valves underneath the tank.
2. Ensure tank and pipes are free from dirt, rust or other particulate.
3. Ensure supply air is clean and dry.
4. Mount valves to inlet flange and blowtube to valves with all seals in place. Tighten flange bolts to 10Nm (7.4 ft-lbs) Ensure blowtube is pushed all the way into the valve outlet.

5. Tanks and pipes must be independently restrained from valve.
6. Make electrical connections to solenoid or connect RCA pilot port to pilot valve (RCA valves only).
7. Apply moderate pressure to system and check for installation leaks.
8. Fully pressurise system.
9. Test fire and listen for proper actuation and crisp pulse noise.

Valve is not a structural component. Do not rely on valve to retain tanks or pipe. Refer to Camlock product specification for installation details.

SCHEDULE 40 SIZE	OD MM	OD INCHES
1"	33.4	1.315
1.5"	48.3	1.900

WEIGHTS

SIZE	INTEGRAL PILOT (CA) KG (LBS)	REMOTE PILOT (RCA) KG (LBS)
25	1.050 (2.31)	0.830 (1.82)
45	1.830 (4.03)	1.610 (3.55)

MAINTENANCE KITS

MODEL	NITRILE	VITON	INCLUDES
CAC/RCAC25FS Diaphragm kit CA/RCA45FS Diaphragm kit	K2501 K4502	K2503 K4503	The main diaphragm, secondary diaphragm (45FS only) and spring(s).
CAC45FS to CA45FS Integral pilot cover conversion kit	K4532(NPT) K4538(BSP)	K4537(NPT) K4539(BSP)	The complete CA integrally piloted valve cover assembly. Does not include main diaphragm, main diaphragm spring, cover bolts or main bleed pin.
RCAC45FS to RCA45FS Remotely piloted cover conversion kit	K4533(BSP) K4535(NPT)	K4534(BSP) K4536(NPT)	The complete RCA remotely piloted valve cover assembly with main diaphragm and spring. Does not include cover bolts or main bleed pin.
Integral pilot repair kit (CA45FS and CAC25FS only)	K0380	K0384	O-ring armature assembly, armature spring, ferrule.
Integral pilot repair kit (CAC45FS only)	K0390	N/A	O-ring armature assembly, armature spring, ferrule.
25FS Outlet seal	G690763	G690763-2	Outlet seal
45FS Outlet seal	G690864	G690864-2	Outlet seal

'MM' SERIES PULSE JET VALVES



MM Series

DESCRIPTION

Very high performance diaphragm valve designed to be mounted directly into the compressed air manifold. 1" and 1.5" models are supplied with outlet pipes to length specified, 3" and 3.5" models are supplied without outlet pipes.

SUITABLE FOR

Dust collector applications, in particular for reverse pulse jet filter cleaning including bag filters, cartridge filters, envelope filters, ceramic filters, and sintered metal fibre filters.

CONSTRUCTION

Body and Dresser

Nuts: Diecast Aluminium

Ferrule: 304 SS

Armature: 430FR SS

Diaphragm and Seals: Nitrile or Viton (reinforced)

Spring: 304 SS

Screws: 302 SS

Outlet Pipe: Schedule 40 wrought steel zinc passivated

Diaphragm Seat: PA-6 (25 & 40MM standard), Nitrile coated mild steel (76MM standard), or Viton coated mild steel (all sizes)

Refer to Q Series Solenoid product data sheet for solenoid construction details.

OPERATION

Recommended

on time range: 50–500 ms

Recommended time

between pulses: 1 minute or greater

MAINTENANCE

Before conducting any maintenance activity on the system ensure that components are fully isolated from pressure and power supplies. Pressure and power should not be reapplied until the valve has been fully assembled.

Diaphragm and pilot inspection should be conducted annually.

APPROVALS

- Atex II 2D Mechanical (RCA Only)
- CSA (U.S) C22.2 No 139-1982, UL 429 (CA & RCA)
- C-Tick (CA)
- EMC 2004/108/EC (CA)
- Low Voltage Directive 2006/95/EC (CA)

INSTALLATION

1. MM valves are installed through the tank, refer to the appropriate template listed above.
2. To avoid any potential operational problems it is preferable that the valves are not mounted underneath the tank where condensation may collect. All o-rings should be coated with a silicone based lubricant or similar.
3. Dresser nut seals where used are a pressure seal only, not a structural component. Do not rely on dresser seals to retain either the tanks or blowtubes. Tanks and blowtubes must be independently restrained.
4. Tighten dresser nuts to 20 Nm (15 ftlbs) max.
5. Tighten pipe outlets to 20 Nm (15 ftlbs).
6. Connect to Goyen pilot valve, if remotely actuated.
7. Ensure compressed air supply is dry and free from oil and dirt.
8. Check all cleaning system components are secure before applying pressure.
9. Apply moderate pressure and check for leaks.
10. Fully pressurise system.
11. Test fire and listen for proper actuation and crisp pulse noises.

WEIGHTS

SIZE	INTEGRAL PILOT (CA) KG (LBS)	REMOTE PILOT (RCA) KG (LBS)
25	0.720 (1.59)	0.500 (1.10)
40	1.120 (2.47)	0.900 (1.98)
76	3.900 (8.60)	3.680 (8.11)
102	3.900 (8.60)	3.680 (8.11)

MAINTENANCE KITS AND ACCESSORIES

MODEL	NITRILE	VITON	INCLUDES
CA/RCA25MM Diaphragm kit	K2501	K2503	Diaphragm kits include main and secondary (where required)
CA/RCA40MM Diaphragm kit	K4000	K4007	Diaphragm kits include main and secondary (where required)
CA/RCA76MM Diaphragm kit	K7600	K7601	Diaphragm kits include main and secondary (where required)
CA/RCA102MM Diaphragm kit	K10200	K10201	Diaphragm kits include main and secondary (where required)
Pilot repair kit (all models)	K0380	K0384	o-ring, armature assembly, armature spring, ferrule
CA/RCA25MM*P Installation template	Drawing 690048		Installation templates are available free of charge.
CA/RCA25MM*D Installation template	Drawing 690046		
CA/RCA40MM*P Installation template	Drawing 690045		
CA/RCA40MM*D Installation template	Drawing 609999		
CA/RCA76MM Installation template	Drawing 690151 and 690051		
CA/RCA102MM Installation template	Drawing 691055 and 691056		Suitable for 102MM hose