

FGL¹/₂1 Series

Vacuum Break Valves

•Control Range: 0 - 60 sec.

Model No.	Actuation	Flow Rate	Voltage	Model No.	Actuation	Flow Rate	Voltage
FGL11	NC	32 ℓ/min	12, 24 VDC	FGL21	NC	50 ℓ/min	12, 24 VDC

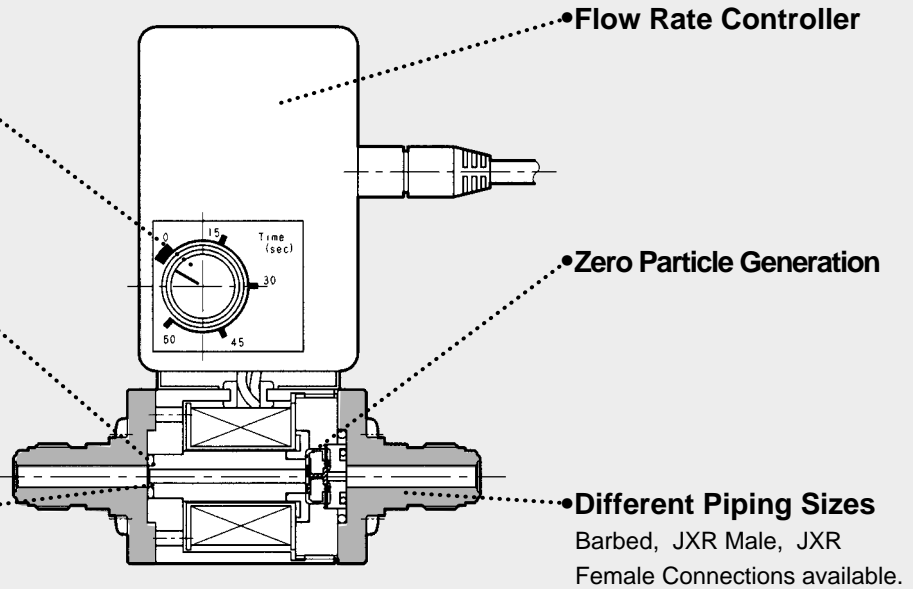
•Vacuum Break Time Control

Chamber vacuum break time can be controlled reliably with this device.

•Straight IN - OUT Flow Path

•High Corrosion Resistance

Stainless Steel Material used (SUS316L).



Specifications



⚠ Use with Caution!

Read "Precautions" in the introduction 4 - 7 before selection and starting use.

- 1 Media
- 2 Follow flow path direction!
- 3 The solenoid valve coil heats up when energized and may reach high temperature.
- 4 Caution! Electric shock may occur upon contact with exposed electric wires in the solenoid valve.

Model No.	FGL11-4S	FGL11-4RM	FGL21-4S	FGL21-4RM
Media	Inert Gases			
Pressure Range (Primary) MPa {kgf/cm ² }	0.15 { 1.5 }			
Pressure Range (Secondary) Pa (abs) {Torr}	$1.3 \times 10^{-6} - 1 \times 10^5$ { $1 \times 10^{-8} - 760$ }			
Flow Rate ℓ / min	32		50	
Valve Seat Leakage cm ³ /min	0.5			
External Leakage Pa·m ³ / s He {Torr· ℓ / sHe}	1.3×10^{-9} { 1×10^{-8} }			
Proof Pressure MPa {kgf/cm ² }	0.99 { 9.9 }			
Media Temperature °C	10 - 30			
Ambient Temperature °C	10 - 30			
Piping Size	1 / 4" Barbed	See Note 1 / 4" JXR Male	1 / 4" Barbed	1 / 4" JXR Male
Position for Installation	Any Orientation			
Power Consumption W	8		10	
Power Supply Voltage	12, 24 VDC			
Operation Signal / Pressure Signal	12, 24 VDC			

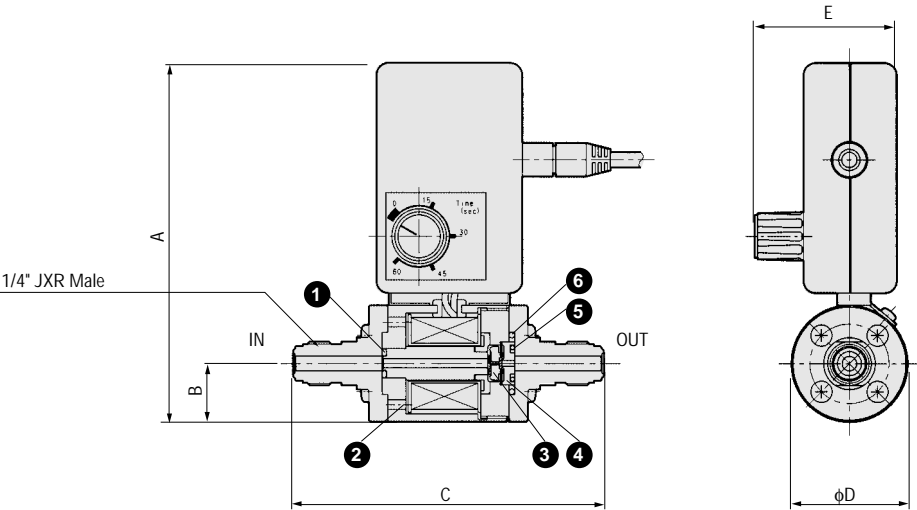
*Note: JXR fitting can be connected to the VCR fitting.

Dimensions

FGL¹/₂1-4RM



FGL11-4RM



Parts List

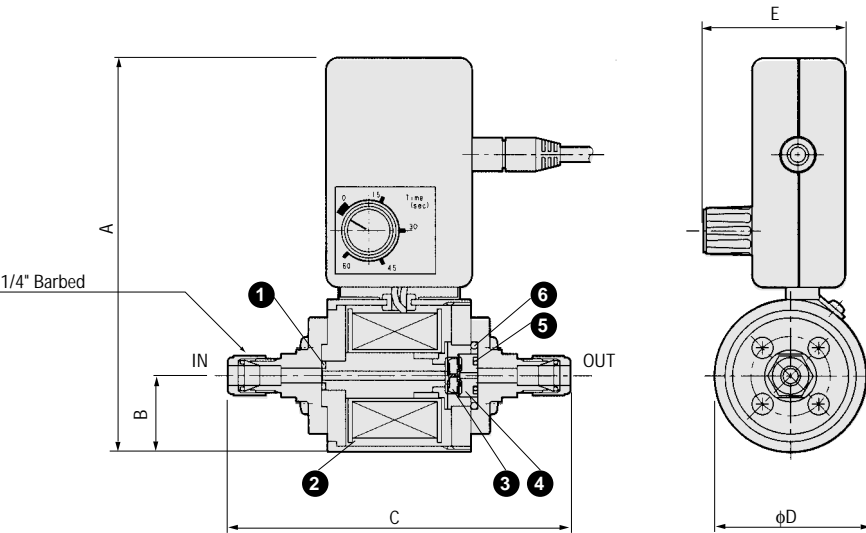
Model No.	A	B	C	φD	E
FGL11-4RM-32-015	117	19	102	38	(46.5)
FGL21-4RM-50-015	129	25	110	50	(46.5)

Item No.	Description	Material	Item No.	Description	Material
1	O-Ring	FKM	4	Diameter	SUS316L
2	Coil Assembly		5	O-Ring	FKM
3	Plunger Assembly		6	O-Ring	FKM

FGL¹/₂1-4S



FGL21-4S

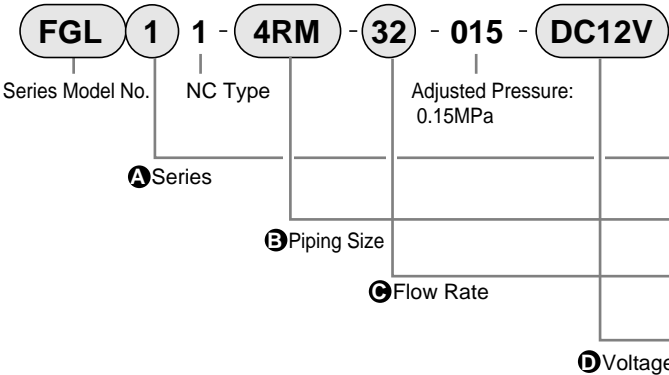


Parts List

Model No.	A	B	C	φD	E
FGL11-4S-32-015	117	19	105	38	(46.5)
FGL21-4S-50-015	129	25	113	50	(46.5)

Item No.	Description	Material	Item No.	Description	Material
1	O-Ring	FKM	4	Diameter	SUS316L
2	Coil Assembly		5	O-Ring	FKM
3	Plunger Assembly		6	O-Ring	FKM

How to order



		Description
A	1	Flow Rate: 32 ℓ / min
	2	Flow Rate: 50 ℓ / min
B	4RM	1/4" JXR Male
	4S	1/4" Barbed
C	32	32 ℓ / min Available only for FGL11
	50	50 ℓ / min Available only for FGL21
D	DC12V	12 VDC
	DC24V	24 VDC

FGL11-X* Series

Vacuum Break Valves with Air Operated Diaphragm Valves

•Combination Valve •Space Saving

Model No.	Actuation	Flow Rate	Voltage	Model No.	Actuation	Flow Rate	Voltage
FGL11-X0005	NC	32 ℓ/min	12 VDC	FGL11-X0006	NC	32 ℓ/min	24 VDC

Modular and Compact

•Integrated Gas Valve (AGD)

•Vacuum Break Time Control

Chamber vacuum break time can be controlled reliably with this device.

•Smooth IN - OUT Flow Path.

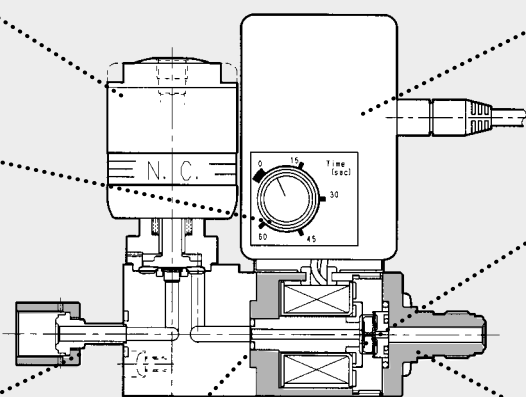
•High Corrosion Resistance

Stainless Steel Material Used (SUS316).

•Flow Rate Controller

•Zero Particle Generation

•Fitting Size: IN 1/4" VCR Female, OUT 1/4" JXR Male



Use with Caution!

Read "Precautions" in the introduction 4 - 7 before selection and starting use.

- ❶ Media
- ❷ Follow flow path direction!
- ❸ The solenoid valve heats up when energized and may reach high temperature.
- ❹ Caution! Electric shock may occur upon contact with exposed electric wires.

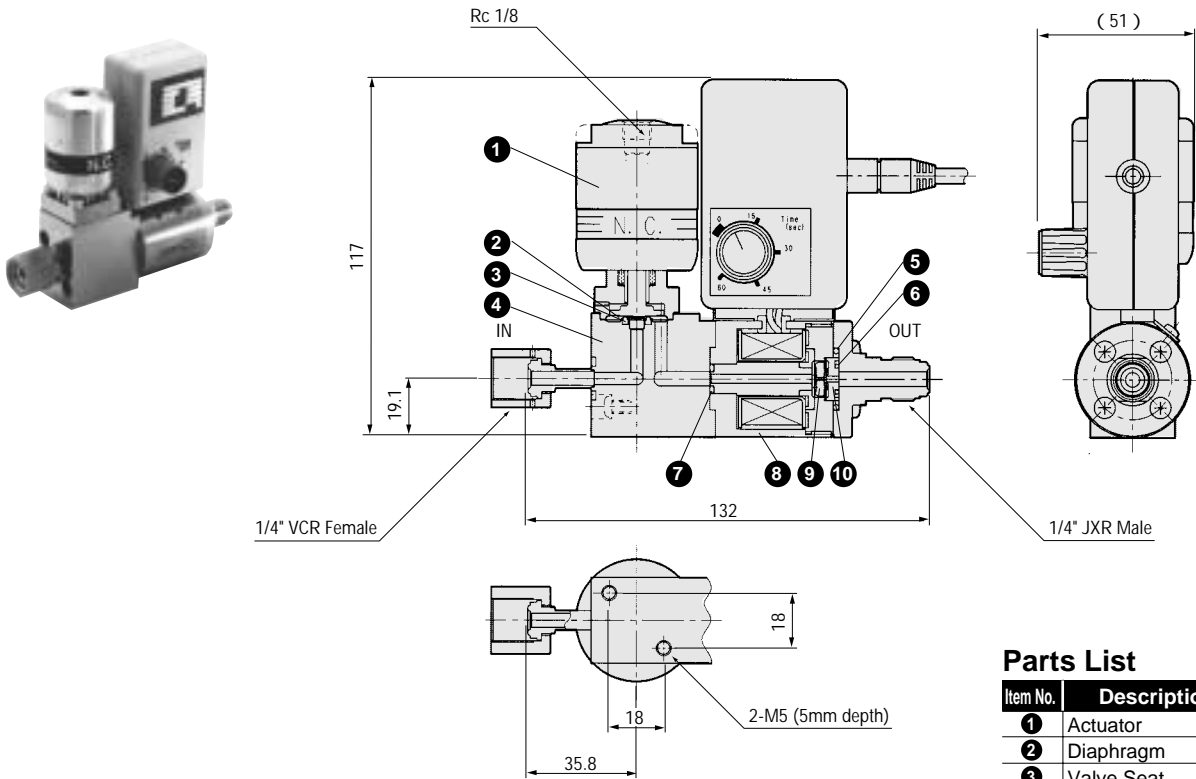
Specifications

Model No.	FGL11-X0005	FGL11-X0006
Media	Inert Gases	
Pressure Range (Primary) MPa {kgf/cm ² }	0.15 { 1.5 }	
Pressure Range (Secondary) Pa (abs) {Torr}	$1.3 \times 10^{-6} - 1 \times 10^5$ { $1 \times 10^{-8} - 760$ }	
Flow Rate ℓ / min	32	
Valve Seat Leakage Pa·m ³ / s {Torr·ℓ/ sec}	1.3×10^{-9} { 1×10^{-8} }	
External Leakage Pa·m ³ / s He {Torr·ℓ/ sHe}	1.3×10^{-9} { 1×10^{-8} }	
Proof Pressure MPa {kgf/cm ² }	0.99 { 9.9 }	
Media Temperature °C	10 - 30	
Ambient Temperature °C	10 - 30	
Piping Size	IN : 1/4" VCR Female OUT : 1/4" JXR Male	
Position for Installation	Free Orientation	
Power Consumption	8	
Power Supply Voltage W	12 VDC	24 VDC
Operation Signal / Pressure Signal	12 VDC	24 VDC

Dimensions

FGL11-X*

•NC Type with Gas Valve



Parts List

Item No.	Description	Material
1	Actuator	
2	Diaphragm	ASL-350
3	Valve Seat	PCTFE
4	Body	SUS316L
5	O-Ring	FKM
6	O-Ring	FKM
7	O-Ring	FKM
8	Coil Assembly	
9	Plunger Assembly	
10	Orifice	SUS316L