

NEW

FINE series PURE

NEW MEGA series



FPR-NSD-721-6.35-316LP

FPR-ND-71-6.35

FUND-71G-6.35

Safety & Clean Technology

Fujikin. Incorporated

NEW MEGA-ONE® LA

New Low-pressure Pneumatically-actuated Valves

The NEW MEGA-ONE® LA is a pneumatically-actuated diaphragm valve for ultra-pure, flammable, or toxic fluid lines for all types of semiconductor equipment and facilities.

The direct diaphragm construction makes the NEW MEGA-ONE® LA an industry standard valve with superior sealing performance, remarkable durability and compactness, and particle- and dead-space-free performance.

This valve has the same performance as the MEGA-ONE® LA, but is more compact and durable.

Color-coded labels differentiate between normally open (blue) and normally closed (red) valves, thereby simplifying identification.



- The simplified actuator design makes it more compact.
- Durability of over 4 million cycles (ø6.35)

Excellent gas displacement characteristics. (1.48cc total volume for the male UJR version.)



Extremely durable nickel-cobalt alloy diaphragm

EP treatment is standard for all wetted surfaces. UP treatment is optional.

Standard seat material is PCTFE. Polyimide/PFA seat material is also available.



Specifications and Materials

Specifications	Nominal Diameter	Maximum Operating Pressure	Fluid Temperature Range	Maximum Cv* (with N ₂ gas at 20°C)	Actuation Pressure	Supply Air Connection	End Connection
	6.35	1 MPa	-10 to 80°C	0.3	0.4 to 0.6 MPa	M5×0.8	UJR, UPG, F900, tube stub
	9.52 & 12.7			0.65			

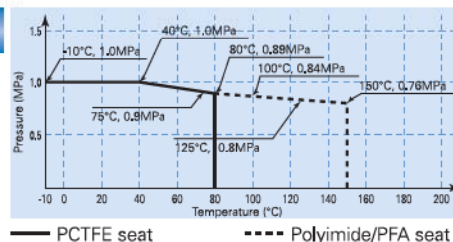
- Theoretical leak rate: External leak: 5×10^{-12} Pa·m³/sec. Seat leak: 5×10^{-12} Pa·m³/sec
- Tested leak rate: External leak: 5×10^{-10} Pa·m³/sec. Seat leak: 5×10^{-10} Pa·m³/sec
- Durability of over 4 million cycles (ø6.35), and over 2 million cycles (ø9.52), respectively, under test conditions.

- All valves are helium leak tested.
- * Depends on the configuration of the body.

Materials	Part	Material
	Body*	SUS316L
	Diaphragm	Nickel-cobalt alloy
	Seat	PCTFE (standard)
	Actuator	Aluminum alloy (alumite coated)

* Materials other than SUS316L double-melt are also available. Consult with Fujikin for use outside the specification range.

Temperature/Pressure Rating



Part Number Designation

Please use the part number designations below when placing an order.

FPR-ND [] -71-6.35 [] [] - [] - []

A	B	C	D	E	F	G	H	I	J
FP: Normally open FPR: Normally closed	Stainless steel direct diaphragm valve	TB: 3-way valve* CL: 2-way, corner left valve*	7: UJR/UPG end connection 9: F900 end connection 5: Tube stub end connection	1: 1 MPa maximum operating pressure	End Connection Size 6.35: 1/4"OD 9.52: 3/8"OD 12.7: 1/2"OD (UJR connections have a 9.52mm port diameter.)	Blank: Male UJR on both ends UG: UPG end connection BW: Butt weld	-2: Female UJR on both ends -3: Male UJR inlet / Female UJR outlet	Blank: PCTFE seat PI: Polyimide seat* PA: PFA seat*	UP: UP treatment* PS: Cr ₂ O ₃ treatment* FD: Fluorine passivation*

* Optional or made-to-order.

Actual shipped items may have additional designations (such as #A, #B) in the part number. These indicate production history and do not indicate a change in function or dimensions.

Dimensions

* For the most up-to-date product information, visit Fujikin's website (<http://www.fujikin.co.jp/>).

Figure 1

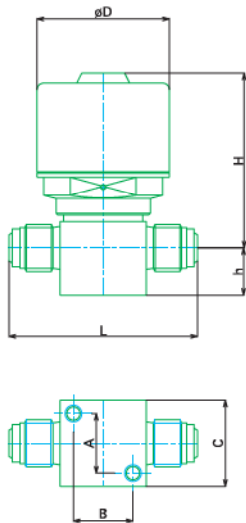


Figure 2

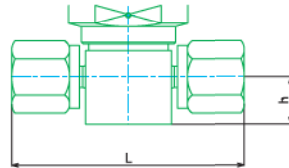


Figure 3

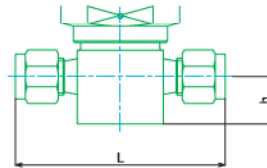


Figure 4

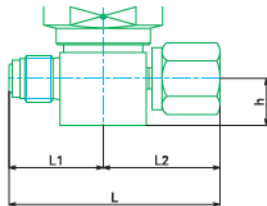


Figure 5

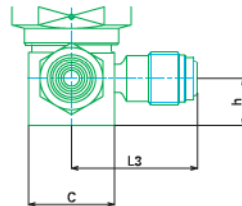
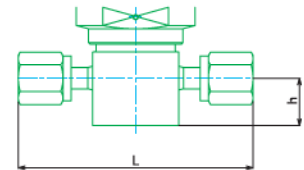


Figure 6



(Units: mm)

Part Number	Figure	L	L1	L2	L3	h	H	D	A	B	C
FP(R)-ND-71-6.35	1	57				14.3	53	40	18	18	26
FP(R)-ND-71-6.35-2	2	70.6				14.3	53	40	18	18	26
FP(R)-ND-71-9.52	1	76.2				11.1	67.5	55	20.2	20.2	35
FP(R)-ND-71-9.52-2	2	83				12.7	67.5	55	20.2	20.2	35
FP(R)-NDTB-71-6.35	4	65.7	31	34.7	38.1	14.3	54	40	18	18	26
FP(R)-NDTB-71-9.52	4	79.2	37.7	41.5	43.1	12.7	67.5	55	20.2	20.2	35
FP(R)-NDTB-71-9.52×6.35	4	69.9	31.8	38.1	38.1	12.7	66	40	18	18	26
FP(R)-ND-91-6.35	3	63.5				14.3	53	40	18	18	26
FP(R)-ND-91-9.52	3	80				12.7	67.5	55	20.2	20.2	35
FP(R)-ND-91-12.7	3	85				12.7	67.5	55	20.2	20.2	35
FP(R)-ND-71-6.35UG	5	46				14.3	53	40	18	18	26
FP(R)-ND-71-6.35UG-2	6	71				14.3	53	40	18	18	26
FP(R)-ND-71-9.52UG	5	57				11.1	67.5	55	20.2	20.2	35
FP(R)-ND-71-9.52UG-2	6	86				12.7	67.5	55	20.2	20.2	35
FP(R)-ND-71-12.7UG	5	61				11.1	67.5	55	20.2	20.2	35
FP(R)-ND-71-12.7UG-2	6	92				12.7	67.5	55	20.2	20.2	35

* See Figure 1 for dimension keys not shown in other figures.