TAKASAGO ELECTRIC, INC.

PEEK Moulded Valve

MTV-K Series

・PEEK is as chemically inert as Teflon but being harder, ensures that fittings remain tightly installed.

・Threaded type (1/4-28UNF or M6) and Barbed type are available for port connection

・Unique “Soft-seal” prevents leakage problem caused by particulate matter in the fluid.

・A high pressure version (600kPa rated) is available in this series.

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Specifications

Model Number	MTV-2K-NM6(1/4U)F	MTV-2K-NM6(1/4U)G	MTV-3K-NM6(1/4U)F	MTV-3K-NM6(1/4U)G
Type*	2 Way Normally Closed		3 Way	
Orifice Diameter	2mm		2mm	
Port Connection	M6, 1/4-28UNF or Barbed		M6, 1/4-28UNF or Barbed	
Operating pressure	IN：-90～200kPa（-675mmHg～2.0bar） OUT：0～100kPa（0～1.0bar）		COM.：-90～200kPa（-675mmHg～2.0bar） N.C.、N.O.：0～100kPa（0～1.0bar）	
Fluid Temp. Range	0～60°C	5～60°C	0～60°C	5～60°C
Ambient Temp. Range	0～60°C	5～60°C	0～60°C	5～60°C
Rated Voltage*	12 or 24VDC		12 or 24VDC	
Power Consumption	2.6W		2.6W	
Operating Duration	Continuous Duty		Continuous Duty	
Coil. Temp. Increase*	MAX.50°C		MAX.50°C	
Internal Volume	IN：30μl OUT：240μl		COM：80μl NC：83μl NO：170μl	
Insulation Class	Class B		Class B	
Dielectric Strength	1500VAC for 60s		1500VAC for 60s	
Diaphragm Material	PTFE		PTFE	
Seal Material	FPM	Perfluoroelastomer	FPM	Perfluoroelastomer
Body material	PEEK		PEEK	

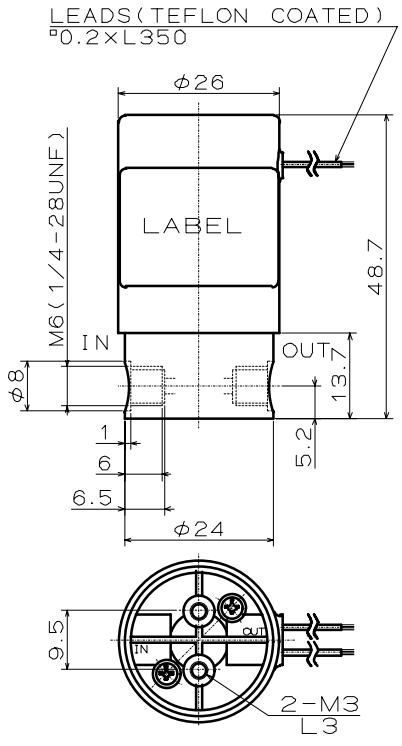
Notes (*)

Type: 2-way normally open is available on request.

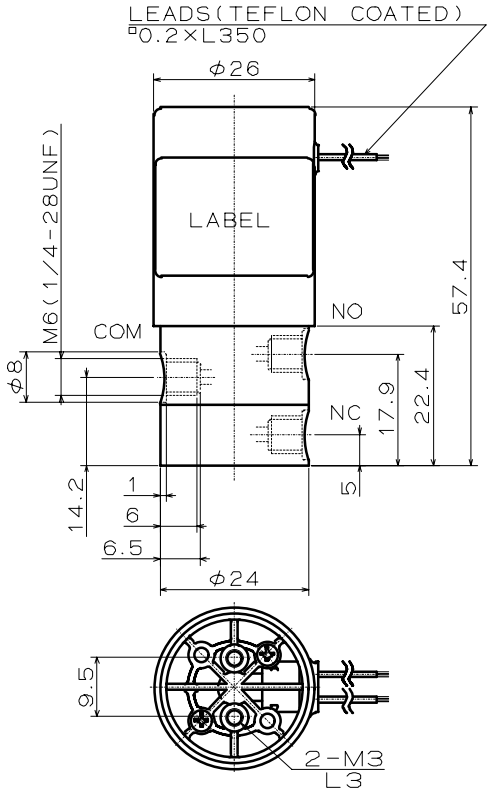
Rated Voltage: Other voltages are available on request.

Coil Temp. Increase: From room temperature when continuously energized

MTV－2K－NM6（1／4U）F



MTV－3K－NM6（1／4U）F



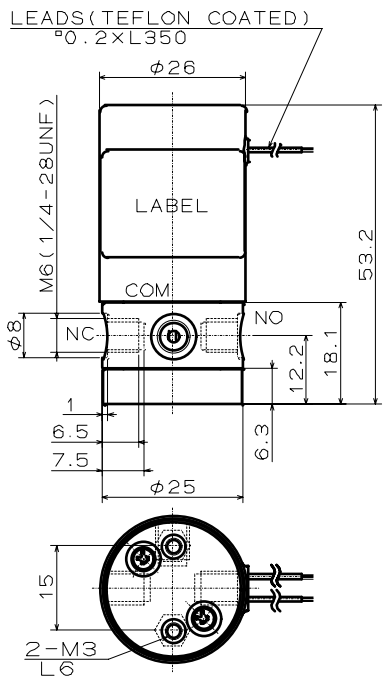
Specifications

Model Number	MTV-3-NM6(1/4U)KG	MTV-3-M6(1/4U)KGH
Type	3 way	3 way
Orifice Diameter	1.8mm	1.6mm
Port Connection	M6 or 1/4-28UNF	M6 or 1/4-28UNF
Operating pressure	COM：-80～200kPa N.C.、N.O.：0～100kPa	COM：-80～600kPa N.C.、N.O.：0～500kPa
Fluid Temp. Range	5～60°C	5～60°C
Ambient Temp. Range	5～50°C	5～40°C
Rated Voltage	12 or 24VDC	24VDC
Power Consumption	4.4W	9W
Operating Duration	Continuous Duty	Intermittent (4min、ED 20%)
Coil. Temp. Increase*	MAX.75°C	————
Internal Volume	COM：61μl N.C.、N.O.：72μl	COM：61μl N.C.、N.O.：72μl
Insulation Class	Class B	Class B
Dielectric Strength	1500VAC for 60s	1500VAC for 60s
Diaphragm Material	PTFE	PTFE
Seal Material	Perfluoroelastomer	Perfluoroelastomer
Body Material	PEEK	PEEK (Optionally PPS)

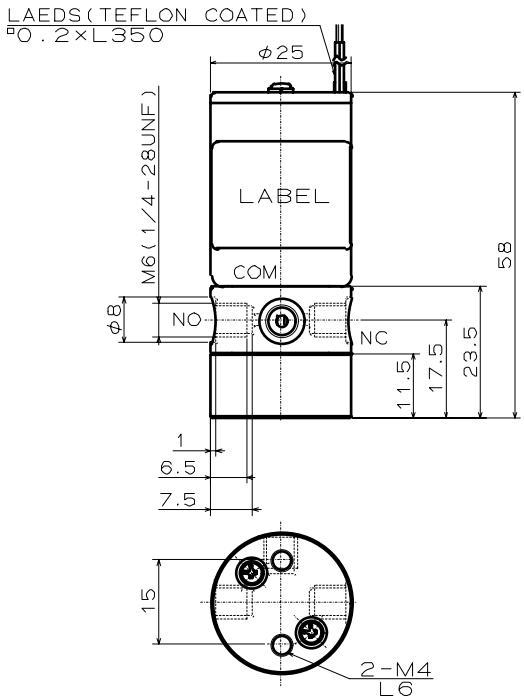
Notes (*)

Coil Temp. Increase: From room temperature when continuously energised

MTV－3－NM6（1／4U）KG



MTV－3－M6（1／4U）KGH



VALVE BODY MATERIAL, PEEK (POLYARYLETHERKETONE)

Features:
- High Resistance to Chemicals (See Table Below)
- High Rigidity And High Mechanical Strength
- Deformation Temperature: 150℃ and above.

Chemical Compatibility Comparison Data

	PEEK	PPS	PTFE	SUS316	FPM (FKM)	EPDM
Acetaldehyde	A	A	A	A	D	B
Acetone	A	A	A	A	D	B
Ammonia	A	B	A	A	A	A
Hydrochloric Acid (20%)	A(10%)	A	A	D	A	A
Sea Water	A	A	A	C	A	—
Hydrogen Peroxide (30%)	A	B	A	C	A	C
Sodium Hydroxide (50%)	—	A	A	C	D	A
Xylene	A	A	A	A	A	—
Chloroform	—	A	A	A	D	D
Acetic Acid (10%)	A	A	A	A	B	D
Pure Water (Ion-Exchange Water)	A	A	A	A	A	A
Sodium Hypochlorite (5%)	A	A	A	D	A	B
Nitric Acid (10%)	A	A	A	A	A	B
Tetrahydronfuran	A	A	A	A	D	—
Toluene	A	A	A	A	B	D
Benzene	A	A	A	A	B	D
Formalin (37%)	A	A	A	C	A	A
Sulphuric Acid (30%)	B	A	A	D	A	A
Phosphoric Acid	A	A	A	D	A	—

A: Compatible

B: Mostly Compatible

C: Compatible Under Some Conditions

D: Not Compatible

—: No Data

・The above are only reference data. Testing with your application is recommended.

※Specifications might be changed as this is still developing.