

NTD Series

Valve for 1.125" C-Seal



The NTD series are compatible for 1.125" C-Seal substrate that achieves high durability and Cv consistency.

Features

High durability

Rated 10 Million or greater cycles, realized as a result of our unique technology.

* Our test performance (test conditions) : Automatic valve, fluid N2, charged pressure 145psig (1.0MPa (G))

Stable Cv

Consistent gas flow rates are obtained because fluctuations, due to machining differences, are minimized and reduces differences in Cv among all valves.

Min. variation in Cv ($\pm 10\%$) among all valves, and also over the 10 million cycles.

* Performance values according to our testing methods

Specifications

Model	NTD4C (N.C)	NTD40 (N.O)	NTD4CH (Hybrid (manual + N.C.))
Size	1/4" (1.125")		
Cv *1	0.3 (Room temperature)		
Maximum Operating Pressure	145 psig (1.0 MPa(G))		
Wetted Area Volume *2	0.05 in ³ (0.82 cm ³)		
Fluid Temperature *3	+20 ~ +50 °C		
Atmospheric Temperature	+20 ~ +50 °C		
Actuation pressure	65 ~ 102 psig (0.45 ~ 0.7 MPa (G))	73 ~ 87 psig (0.5 ~ 0.6 MPa (G))	65 ~ 102 psig (0.45 ~ 0.7 MPa (G))
Leak Rates	Across the Seat He Leak Rates	$\leq 1 \times 10^{-9}$ SCCS ($\leq 1 \times 10^{-10}$ Pa · m ³ /s)	
	Inboard He Leak Rates	$\leq 1 \times 10^{-9}$ SCCS ($\leq 1 \times 10^{-10}$ Pa · m ³ /s)	
Cycle life *4	10 million cycles	10 million cycles	10 million cycles (Manual : 10,000 cycles)

*1 Performance value of a single "C-seal" valve at room temperature based on SEMASPEC-90120394B-STD

*2 Calculated value

*3 Max. bakeout temperature at valve open : 120°C

*4 Lab tested : Nitrogen pressurized at 145psig (1.0MPa (G))

Grade	STD	EP	SEP
Body Material	SUS316L		SUS316LE (Double melt material)
Seat Material	PCTFE		
Diaphragm material	Cobalt alloy		
Surface Roughness	\leq Rz 126 μ m (3.2 μ m) \leq Ra 20 μ m (0.5 μ m)		\leq Rz 28 μ m (0.7 μ m) \leq Ra 5 μ m (0.13 μ m)
Polish	Mechanical polished		Electro polished
Cleaning	Degreasing + Precision cleaning		
Packaging	Single bagged package		Double bagged package

Type

Model	Size	Operation	Valve Shape	Connection	Seat Material	Option	Grade
NTD	4	C	S	G	C	****	EP-316L
NTD : Diaphragm valve	4 : 1/4"	C : Normally closed O : Normally open CH : Hybrid	S : Straight B : Branch	G : C-seal Surface Mount V : CVC male VF : CVC female W : Tube end S : Compression	C : PCTFE	Type no. : Special spec, etc.	STD-316L : Mechanical polished + SUS316L EP-316L : Electro polished + SUS316L SEP-316LE : Electro polished + SUS316LE (Double melt material)

Dimensions

Unit : inch (mm)

Model	Type	Connection	H	H1	J	A	B	C	D	E	F	M	N	P	Q
	NTD4CS-GC	C-1.125" Surface Mount	(85)	(77)		28.5									
	NTD40S-GC	C-1.125" Surface Mount	(80)	(72)	6.6	27	28.6	12.7	7.75	21.74	4.75	5.2	1.55	M5×0.5	1/8" tube
	NTD4CHS-GC	C-1.125" Surface Mount	(127)	(116)		28.5								—	



■ **Global Network**

Tokyo Head Office

JRE Omorieki Higashiguchi Bldg. 3F, 1-5-1 Omorikita, Ota-Ku,
Tokyo 143-0016, Japan
TEL. 81-3-6404-2171 FAX. 81-3-6404-2172

Osaka Sales Office

202 MG Amagasaki Ekimae Bldg., 21 Misono-Cho, Amagasaki-shi,
Hyogo 660-0861, Japan
TEL. 81-6-6413-4177 FAX. 81-6-6413-4188

Chukyo Branch Office

Ozeki-Heights 1F, 1-12-13 Unomori, Yokkaichi-shi,
Mie 510-0074, Japan
TEL. 81-59-350-8121 FAX. 81-59-350-8122

Kyushu Sales Office

Z-S Fukuoka Bldg. 4F, 3-4-2 Higashihie, Hakata-Ku, Fukuoka-shi,
Fukuoka 812-0007, Japan
TEL. 81-92-483-0185 FAX. 81-92-483-0186

Nitta SC Factory

150-2 Nittakane-Cho, Ota-shi, Gunma 370-0352, Japan
TEL. 81-276-60-9600 FAX. 81-276-60-9330

KITZ SCT AMERICA CORPORATION

5201 Great America Parkway, Suite 238,
Santa Clara, CA 95054, USA
TEL. 1-408-747-5546 FAX. 1-408-747-5726

KITZ SCT CORPORATION TAIWAN REPRESENTATIVE OFFICE

3F-1, No. 38, Beida Rd., East Dist.,
Hsinchu City 30044, Taiwan (R.O.C.)
TEL. 886-3-542-0110 FAX. 886-3-542-0551

KITZ CORPORATION OF SHANGHAI

Rm. 1701-1704, No.3000, North Zhongshan Rd., Putuo Dist.,
Shanghai 20063, China
TEL. 86-21-5243-5025 FAX. 86-21-6439-1257

KITZ SCT CORPORATION OF KUNSHAN

8-3, No. 3 Road, Export Processing A Zone,
Kunshan Jiangsu 215300, China
TEL. 86-512-5735-0700 FAX. 86-512-5735-7500

KITZ SCT CORPORATION OF KUNSHAN BRANCH FACTORY

Bldg. 9, No. 68, Taoyuen Rd., Export Processing B Zone,
Kunshan Jiangsu 215300, China



Caution

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