

TAD / TAO / TAC type Pneumatic Actuator Specifications

FEATURE

The piston incorporating wear ring prevents wear of sliding surface and offers superior durability. With stem spring, packing ware and changes in pressure or temperature can be corrected automatically, and that keeps high reliability.

TAD type

Classification	Double-acting type						
Actuator type	TAD-040	TAD-050	TAD-063	TAD-080	TAD-100	TAD-125	TAD-160
Weight [kg]	0.9	1.3	2.1	3.4	6.1	9.8	18.2
Air consumption (round-trip) [ℓ]	0.11	0.18	0.34	0.66	1.36	2.72	5.56
Operation	SHUT by air to port A. ↔ OPEN by air to port B.						
Air pressure	0.4 to 0.7 MPa						
Piping connection	Rc 1/8	Rc 1/4					
Method of operation	Rack-and-pinion	Scotch yoke					
Housing material	Aluminum alloy						
Ambient temperature	-10 to 50 °C (Please be careful when you use in 5 °C or less, so that there no freeze.)						
Manual operation	Operates the upper shaft of the actuator directly.						

3 way valve: SHUT/Position-1, OPEN/Position-2.

TAO / TAC type

Classification	Single-acting type (Spring-return)						
Actuator type	TAO-040 TAC-040	TAO-050 TAC-050	TAO-063 TAC-063	TAO-080 TAC-080	TAO-100 TAC-100	TAO-125 TAC-125	TAO-160 TAC-160
Weight [kg]	2.3	3	4.9	8.5	16.4	27.6	51.2
Air consumption (round-trip) [ℓ]	0.23	0.34	0.67	1.26	2.62	4.44	8.77
Operation	TAO : OPEN by air to intake port. ↔ SHUT by spring-return. (Airless SHUT) TAC : SHUT by air to intake port. ↔ OPEN by spring-return. (Airless OPEN)						
Air pressure	0.4 to 0.7 MPa						
Piping connection	Rc 1/4						
Method of operation	Rack-and-pinion	Scotch yoke					
Housing material	Aluminum alloy						
Ambient temperature	-10 to 50 °C (Please be careful when you use in 5 °C or less, so that there no freeze.)						
Manual operation	No manual operation.	Option: MT (Manual handle unit)					

3 way valve: SHUT/Position-1, OPEN/Position-2.

OPTIONAL PARTS

Classification		Code	TAD	TAO	TAC
Speed Controller with bypass valve (Housing material: PPS)		BS	○		
FR Unit (Regulator with Filter) TA2-FR (KONAN)		FR	○	○	○
Limit Switch Box (Standard load signal)		LB	○	○	○
Explosion Proof Limit Switch / VCX7001 (azbil) Ex d e II C T6		LR	○	○	○
Speed Controller (with One-touch Fitting) One set		SE	○	○	○
Speed Controller (with One-touch Fitting) Two sets		SS	○		
Speed Controller (with One-touch Fitting) Dual Speed Controller		SF		○	○
Manual handle unit (for TAO-050 to 160 / TAC-050 to 160)		MT		○	○
Sealing the spring unit. (Oil-free)		92		○	○
Explosion Proof Electro-Pneumatic Positioner EXd II BT5 (TIIS)		EN	○	○	○
Explosion Proof Electro-Pneumatic Positioner Ex dmb II B T5 (TIIS)		EP	○	○	○
Smart positioner		ES	○		
		ER		○	○
Smart positioner (with 4 to 20mA output)		ET	○		
		EU		○	○
Positioner operation	SHUT by 4 mA. ↔ OPEN by 20 mA.	A	○		
	SHUT by 20 mA. ↔ OPEN by 4 mA.	B	○		
(Input signal: 4 to 20 mA)	OPEN by 20 mA. ↔ SHUT by 4 mA. / spring-return. (Airless SHUT)	C		○	
	OPEN by 4 mA. ↔ SHUT by 20 mA. / spring-return. (Airless SHUT)	D		○	
	SHUT by 4 mA. ↔ OPEN by 20 mA. / spring-return. (Airless OPEN)	E			○
	SHUT by 20 mA. ↔ OPEN by 4 mA. / spring-return. (Airless OPEN)	T			○

3 way valve: SHUT/Position-1, OPEN/Position-2.

SOLENOID VALVE (Applicable Pneumatic Actuators: TAD / TAO / TAC)

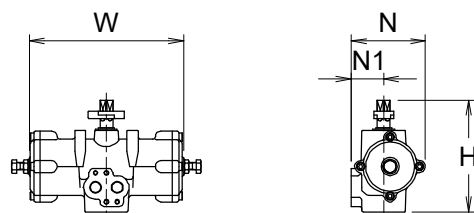
Classification (□: Voltage code)			Code	
5-port Solenoid Valve Return (with bypass valve)	Lead wire	4N3S102K-L□	N43SL□	□: Voltage 1 : 100V AC 3 : 200V AC 5 : 24V DC
	DIN Connector	4N3S102K-D□	N43SD□	
	DIN Connector (with lamp)	4N3S102K-N□	N43SN□	
	Watertight cover	4N3S102K-W□	N43SW□	
5-port Explosion proof solenoid valve Return (with bypass valve)	Conduit	4N4S102K-E01-H□B0-R	4N4S01-□B0, NO	
	Flame proof packing (Cable size Φ9.5 to 10.4 mm)	4N4S102K-E10-H□B0-R	4N4S10-□B0, NO	

Operate by solenoid valve (Normally Open)

TAD	SHUT by solenoid off. ↔ OPEN by power to solenoid.
TAO	OPEN by power to solenoid. ↔ SHUT by solenoid off / spring-return. (Airless SHUT)
TAC	SHUT by power to solenoid. ↔ OPEN by solenoid off / spring-return. (Airless OPEN)

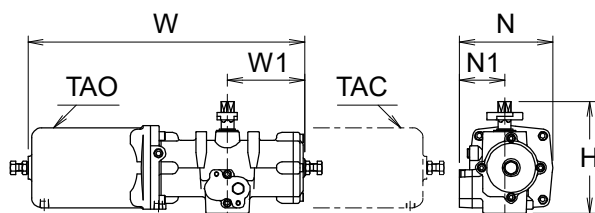
DIMENSIONS

TAD



Actuator	H	W	N	N1
TAD-040	89.5	110	57	32
TAD-050	123	170	82	36
TAD-063	138	204	95	38
TAD-080	171	240	116	45
TAD-100	202	294	143	57
TAD-125	227	366	150	60
TAD-160	273	446	181	68

TAO
TAC



Actuator		W	W1	N	N1
TAO-040	TAC-040	249	55	92	46
TAO-050	TAC-050	305	85	103	50
TAO-063	TAC-063	367	102	119	52
TAO-080	TAC-080	435	120	142	59
TAO-100	TAC-100	530	147	174	71
TAO-125	TAC-125	688	183	193	74
TAO-160	TAC-160	838	223	231	82

Note) Cylinder direction of TAC-040 is the same as TAO.