

Pneumatic actuators, stainless steel version

Twin-piston actuator, type ETD/ETE – 4A

Product description

Stainless steel actuators are specially designed for the use in aggressive ambience, but offer at the same time the advantages of the standard line of products. Modes of application are for example in the foodstuff, beverage, pharma, chemical industry, offshore range, etc.

Technical data

Type	pneumatic twin-piston actuator type ETD = double-acting type ETE = single-acting (with spring return)
Construction features	tooth rack and pinion technique with self-centering piston guidance in the casing single-acting: with bar safety springs
Mounting position	random
Standards	<u>interface actuator/valve:</u> internal thread in the casing according to DIN/ISO 5211, actuator shaft according to DIN 3337 <u>interface actuator/control valve and actuator/signal units:</u> VDI/VDE 3845 (NAMUR)
Materials	
Casing	stainless steel AISI 316 (1.4408)
Cap	stainless steel AISI 316 (1.4408)
Piston/racks	stainless steel AISI 316 (1.4408)
Shaft	stainless steel AISI 316 (1.4408)
Seals	NBR
Bearings	easy gliding plastic
Ambient temperatures	-20° C to +80° C
Pivoting angle	90° ± 4°
Control pressure	2 to 8 bar
Control medium	filtered air in according to DIN ISO 8573-1/class 4
Accessories	on request

Mounting variations (MV)

Basic position			Rotating direction	Switched position			MV
... of pistons	shaft position			... of pistons	shaft position		
	top	below			top	below	
							F
							E
							G
							H

Order references (example)

ETE – 105 / 090 – 08 – V22 – E → Mounting variation (F – H)

ETE → Type
E = single-acting
D = double-acting

105 → Number of springs, at ETD "none"

090 → Pivoting angle (90°)

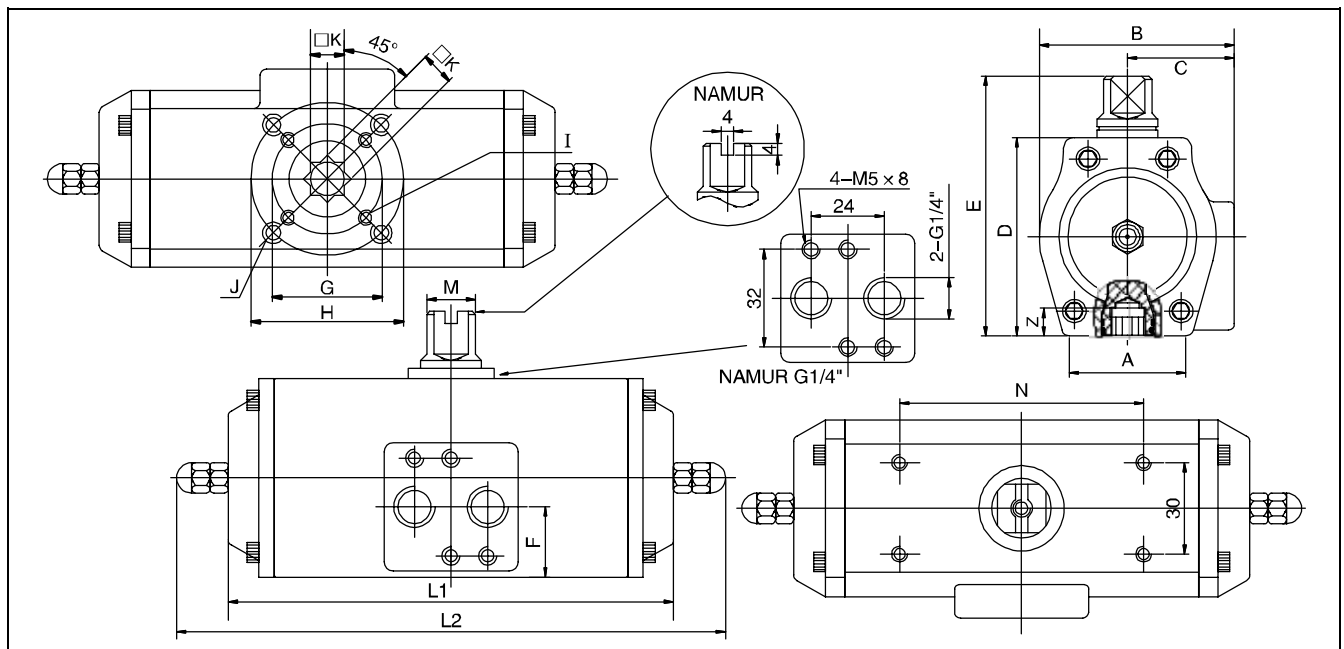
08 → Shaft version, V = octagonal



Special features:

- structural dimensions of double- and single-acting actuators are the same
- limit adjustment of pivoting angle series ± 4°
- excellent capacity of resistance to wear through slide bearing of all moving parts, thereby absolutely maintenance-free
- easy, not dangerous and cost saving reconditioning through fastened bar-safety springs
- universal mounting possibilities of all signal units to normed interfaces

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Type	Dimensions mm																Weight kg	
	A	B	C	D	E	F	G	H	I	J	K	L1	L2	M	N	Z	ETE	ETD
ETD-045/090	42	64	35	65	95	23	Ø 36	Ø 50	M5x8	M6x10	14	148	180	16	80	14	2.65	2.51
ETD-060/090	48.5	74	39	81	111	23		Ø 50		M6x10	14	166	185	16	80	18	4.10	3.85
ETD-085/090	66	101	52	108	138	24	Ø 50	Ø 70	M6x10	M8x13	17	197	212	16	80	21	7.00	6.35
ETD-105/090	80	118	60	133	163	24		Ø 70		M8x13	17	250	269	16	80	26	12.60	11.90
ETD-125/090	100	138	69	155	185	28	Ø 70	Ø 102	M8x13	M10x16	22	286	306	22	130	26	19.20	18.00
ETD-140/090	115	153	77	171	201	34	Ø 102	Ø 125	M10x16	M12x20	27	364	376	22	130	31	27.30	24.80
ETD-160/090	132	175	87	197	227	39	Ø 102	Ø 125	M10x16	M12x20	27	412	432	22	130	31	37.60	35.80

Torques of double-acting actuators type ETD [Nm]				Torques of single-acting actuators type ETE [Nm]									
Actuator type	Control pressure P _{St} [bar]			Actuator type	Number of springs	Spring force Md [Nm]		Pneumatic effective torque Md [Nm] at min. control pressure P _{St} min [bar]					
	4.0	5.5	6.0			min.		4.0		5.5		6.0	
						min.	max.	min.	max.	min.	max.	min.	max.
ETD-045/090	12	16.5	18	ETE-045/090	-08	4.6	7.4	4.3	7.2	—	—	—	—
					-10	5.8	9.2	2.4	6.0	6.9	10.5	8.4	12.0
					-12	7.0	11.1	—	—	5.0	9.3	6.5	10.8
ETD-060/090	28.5	39	42.5	ETE-060/090	-08	10.9	16.7	10.8	16.9	—	—	—	—
					-10	13.7	20.9	6.4	14.0	17.0	24.6	20.6	28.2
					-12	16.4	25.0	—	—	12.6	21.7	16.2	25.3
ETD-085/090	61	85	92	ETE-085/090	-08	25.3	36.8	22.8	35.0	—	—	—	—
					-10	31.6	46.0	13.2	28.3	36.4	51.5	44.1	59.2
					-12	38.0	55.2	—	—	26.7	44.8	34.4	52.2
ETD-105/090	131	181	197	ETE-105/090	-08	51	79	49	78	—	—	—	—
					-10	63	98	28	65	77	114	94	131
					-12	76	118	—	—	57	101	73	117
ETD-125/090	205	282	308	ETE-125/090	-08	84	125	73	117	—	—	—	—
					-10	105	157	40	95	117	172	143	198
					-12	126	188	—	—	84	150	110	176
ETD-140/090	351	482	526	ETE-140/090	-08	137	206	134	207	—	—	—	—
					-10	172	258	80	170	211	302	255	345
					-12	206	310	—	—	157	266	200	309
ETD-160/090	535	735	802	ETE-160/090	-08	223	333	184	300	—	—	—	—
					-10	279	417	96	241	297	441	364	508
					-12	335	500	—	—	209	382	276	449

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certified acc. to DIN EN ISO 9001

