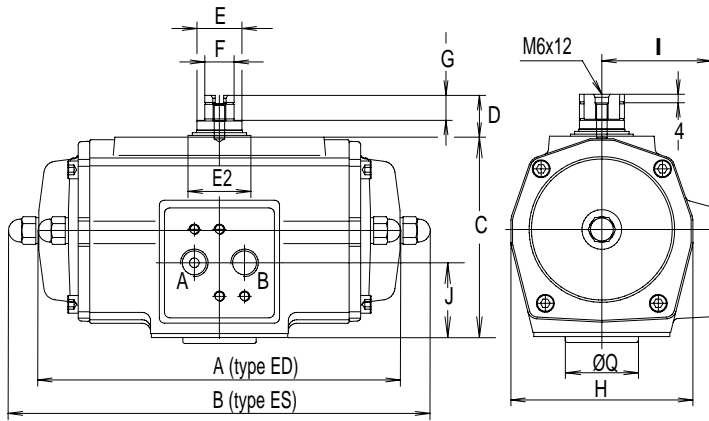


DATASHEET

type ES 1600 / ED 1600 (DIN version)

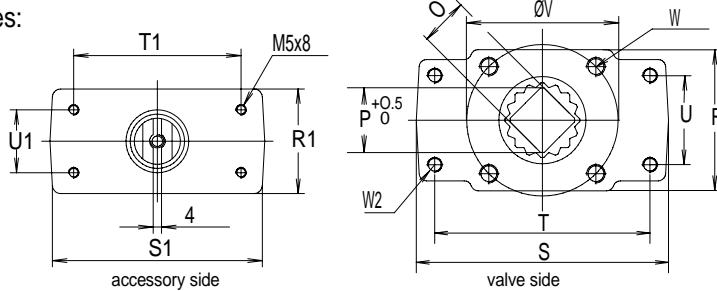


working principle
pneumatic piston type rack and pinion actuator;
quarter turn (0° to 90°)

general

construction	: suitable for indoor and outdoor installation
bore	: 230 mm
stroke	: 62,8 mm
weight	ES : 65,8 kg ED : 42,7 kg
air consumption	port A : 7,3 l port B : 8,0 l
air connection	: G1/4"
pressure range	ES : 3 to 8 bar ED : 0,2 to 8 bar
operating media	: air, dry or lubricated or non-corrosive gas
temperature	: -20°C bis +80°C
rotation angle	: 90° (+1°; -10°)
coating	: polyester non-TGIC based powder

flanges:



notes

- air consumption is the actual free air volume at 1 atm
- flange and square drive to DIN 3337 or DIN ISO 5211
- solenoid mounting interface acc. to VDI/VDE 3845 (according to NAMUR)
- optional temperature range -40°C to +80°C or -20°C to +120°C
- other inserts optional

mounting options

code	mounting direction	action at spring tension (ES) or B-port preasurized (ED)	rotation when A-port preasurized (view from above)
A	in line	closing	ccw
B	across line	closing	ccw
C	across line	opening	cw
D	in line	opening	cw

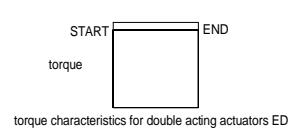
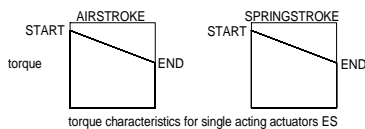
for further information see document 1.504 (ES) or 1.503 (ED)

dimensions in mm

A	B	C	D	E	E2	F	G	H	I	J	Omax	Omin
516	637	297	30	64	75	36	10	265	142	120,5	46,16	46,00
P	Q	R	R1	S	S1	T	T1	U	U1	V	W	W2
60,2	130	154	125	280	210	234,6	130	97,2	30	165	M20x30	M16x25

torque in Nm

ES 1600	air pressure barg	airstroke																springstroke	
		3		3,5		4		4,5		5		5,5		6		7		START	END
spring set		START	END	START	END	START	END	START	END	START	END	START	END	START	END	START	END	START	END
torque (Nm)	3	445	144	608	307	771	470	934	633	1097	769	1260	959	1423	1121	1748	1447	711	449
	4					599	198	762	361	925	523	1088	686	1251	849	1577	1175	947	598
	5									753	251	916	414	1079	577	1405	903	1184	748
	6											744	142	907	305	1233	630	1421	897
ED 1600		2		3		3,5		4		4,5		5		5,5		6		7	
air pressure barg																			
torque (Nm)		600		907		1061		1214		1368		1522		1676		1829		2137	



European Directives

PED : suitable for use with group 2 gases according to Pressure Equipment Directive 97/23/EC
ATEX : II 2 GD c IIC TX

- to determine the configuration code please see document 1.102.10
- for further information regarding materials, certifications and additional execution please contact your regional sales office
- a complete global listing can be found on www.EI-O-Matic.com

VALVE AUTOMATION
DIVISION



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Subject to change without notice