

# PNEUMATIC ACTUATOR EB-SYS, SINGLE-ACTING



EB-SYS single-acting pneumatic actuators are available in either "spring opens" and "spring closes" versions.

## TECHNICAL DATA

Torque:	35 - 3590 Nm
Limit of travel:	exactly adjustable between -8°/+3°
Limit switches and solenoid valve mounting:	VDI / VDE 3845
Supply pressure:	min. 2,5 bar, max. 8 bar
Supply quality:	Filtered compressed air dry or lubricated. The pressure condensation point in accordance with (ISO 8573-1:2010, Class3) has to be $\geq -20^{\circ}\text{C}$ or $10^{\circ}\text{C}$ under ambient temperature. The maximum particle size in accordance with (ISO 8573-1:2010, Class 5) should not exceed $40\ \mu\text{m}$ . For cycles $\geq 4$ /min please lubricate.
Temperature range:	-20°C to +80°C (standard) -40°C to +80°C (low temperature) -15°C to +120°C (high temperature)
Valve interface:	EN ISO 5211
Actuator cylinder:	Anodized aluminium, Other coatings upon request.

## FEATURES

- Maintenance-free
- Suitable for all  $\frac{1}{4}$  turn valves
- Blow-out proofed shaft
- Torques in agreement with EN ISO 5211
- Optical position indicator with integrated operator for limit switches
- All fasteners made of stainless steel
- SIL 2 (SIL 3 as redundant system) acc. to IEC 61508

## KEY BENEFITS

- High opening- and closing- torques provided by scotch-yoke concept
- Ideal sliding properties provided by low friction multiple piston guides
- Operational safety and long service life assured by precise machining of parts
- Spring cartridges ensure safe and easy maintenance without special tools
- ATEX: EX II 2 GD c Tx

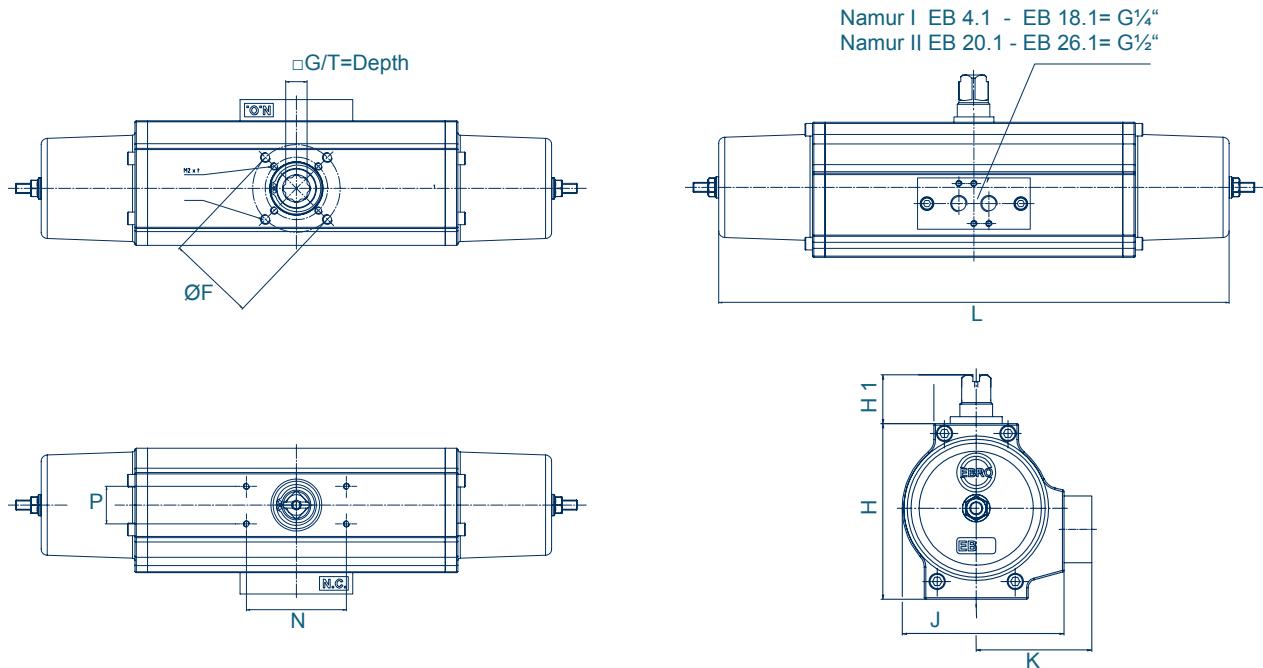


The EBRO Speed Control block allows the adjustment of closing/ opening times up to 60 sec. (depending on actuator size). It can be mounted directly onto the actuator.



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## EB5.1-SYS - EB26.1-SYS



Type	ØF	G***	Hauptabmessungen [mm]								Gewicht [kg]
			H	H1	J	K	L	N	P	T	
EB 5.1	F04/05*	<b>10/11/12/14</b>	77	30	72	57	280	80	30	13/16	2,4
EB 6.1	F04/05/07*	<b>11/12/14/16/17</b>	91	30	88	65	351	80	30	19	4,3
EB 8.1	F05/07	<b>12/14/16/17/22</b>	108	30	100	71	408	80	30	19/24	6,3
EB 9.1	F07/10	<b>14/16/17/22</b>	120	30	113	78	476	80	30	24	9,3
EB 10.1	F07/10	<b>14/16/17/22</b>	129	30	122	82	557	80	30	24	12,5
EB 12.1	F10/12	<b>17/22/24/27</b>	156	30	145	93	661	80	30	29	21,1
EB 14.1	F12/16	<b>36</b>	189	30	148	102	697	80	30	38	32,8
EB 16.1	F12/16	<b>46</b>	212	30	150	102	856	80	30	48	48,0
EB 18.1	F12/16	<b>46</b>	243	30	196	103	902	80	30	48	63,7
EB 20.1	F12/16	<b>46</b>	272	30	234	120	1027	80	30	48	94,3
EB 22.1	F16	<b>55</b>	283	30	244	125	1127	80	30	59	114,9
EB26.1	F16	<b>55</b>	350	30	336	168	1472	80	30	59	228,6

\* F04/F05 no combined flange available

\*\* Topflange F16/ F25 via adaption

\*\*\* Options (Standard = **BOLD**)

## CLOSING TIME\* AND AIR CONSUMPTION

Type	EB 5.1	EB 6.1	EB 8.1	EB 9.1	EB 10.1	EB 12.1	EB 14.1	EB 16.1	EB 18.1	EB 20.1	EB 22.1	EB 26.1
Closing time EB-SYS in sec.*	0,15	0,20	0,45	0,48	0,50	0,70	<1,5	<1,5	<1,5	<1,5	<2,0	<2,0
Filling volume Standard liter/stroke at 1 atm.**	0,27	0,56	0,89	1,40	1,95	3,37	4,52	6,49	10,00	13,64	17,50	36,20

\* closing times with unthrottled air exhaust and air supply, 6 bar control pressure at no load operation

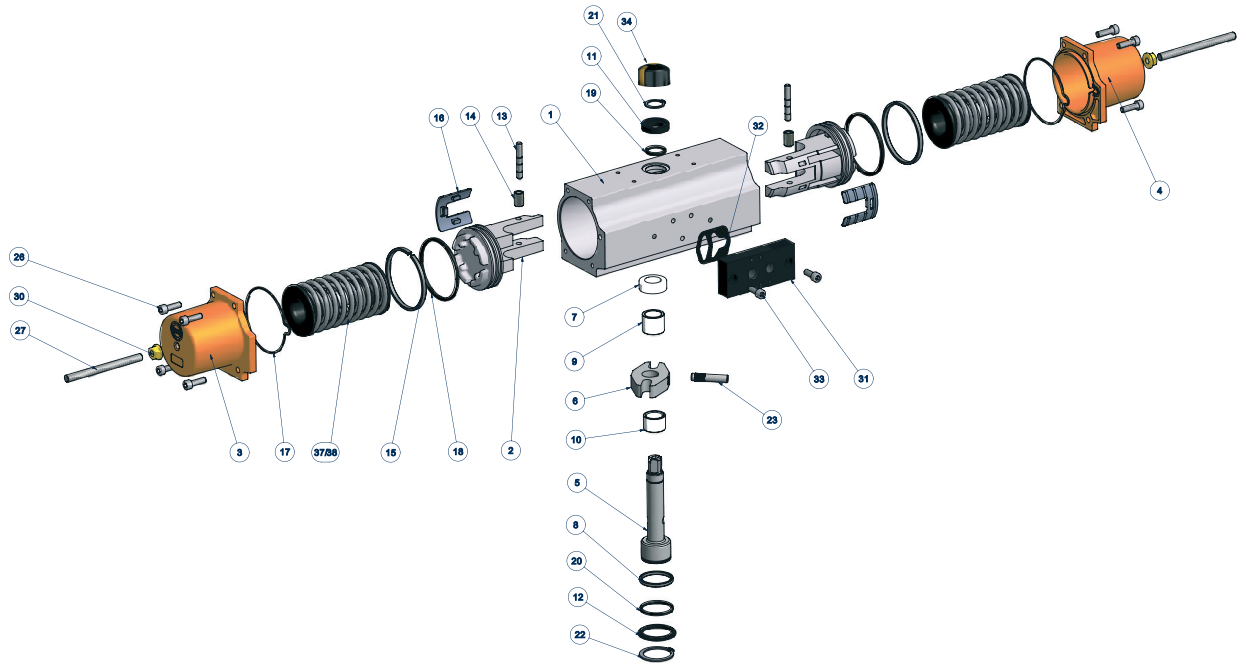
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\*\* air consumption = filling volume x control pressure

Closing-/ opening times can be adjusted up to 60 sec. by using the EBRO speed control block (depending on type of actuator).

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## MATERIAL SPECIFICATION AND PARTS LIST



Only for EB-SYS (5.1 - 26.1)

## COMPONENT PARTS

Pt.	Description	Qty.	Material	Pt.	Description	Qty.	Material
1	Actuator cylinder	1	EN AW 6063-T6	17D	End cover sealing	2	70 NBR
2	Piston	2	Aluminium	18D	Piston O-Ring	2	70 NBR
3	End cover L	1	Aluminium	19D	O-Ring, upper shaft	1	70 NBR
4	End cover R	1	Aluminium	20D	O-Ring, lower shaft	1	70 NBR
5	Drive shaft	1	16 Mn Cr 5	21D	Upper safety ring	1	C 75 chromated
6	Yoke	1	16 Mn Cr 5 / Sint D30	22D	Lower safety ring	1	C 75 chromated
7	Upper shaft bearing	1	Polymer blend/ Ms	23	Bolt	1	42 Cr Mo 4 V
8	Lower shaft bearing	1	Polymer blend/ Ms	26	Hex. socket screw	8	A2-70
9	Upper piston bearing	1	Polymer blend	27	Stroke adjusting screw	2	A2-70
10	Lower piston bearing	1	Polymer blend	30	Seal nut	2	A2-70
11	Upper washer bearing	1	Polymer blend	31	Valve connection plate	1	Aluminium
12	Lower washer bearing	1	Polymer blend	32D	Shaped gasket	1	70 NBR
13	Piston bolt	2	16 Mn Cr S 5	33	Hex. socket screw	2	A2-70
14	Roller	2	100 Cr 6	34	Position indicator	1	Polymer blend
15	Guide band	2	Polymer blend	37	Spring package	1	FD Si Cr
16	Slidepad	2	Polymer blend	38	Spring package	1	FD Si Cr

The spare parts marked with D are integrated in the standard seal set.

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