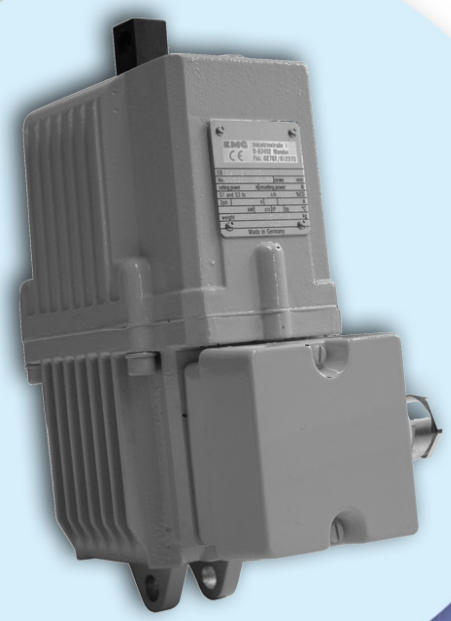
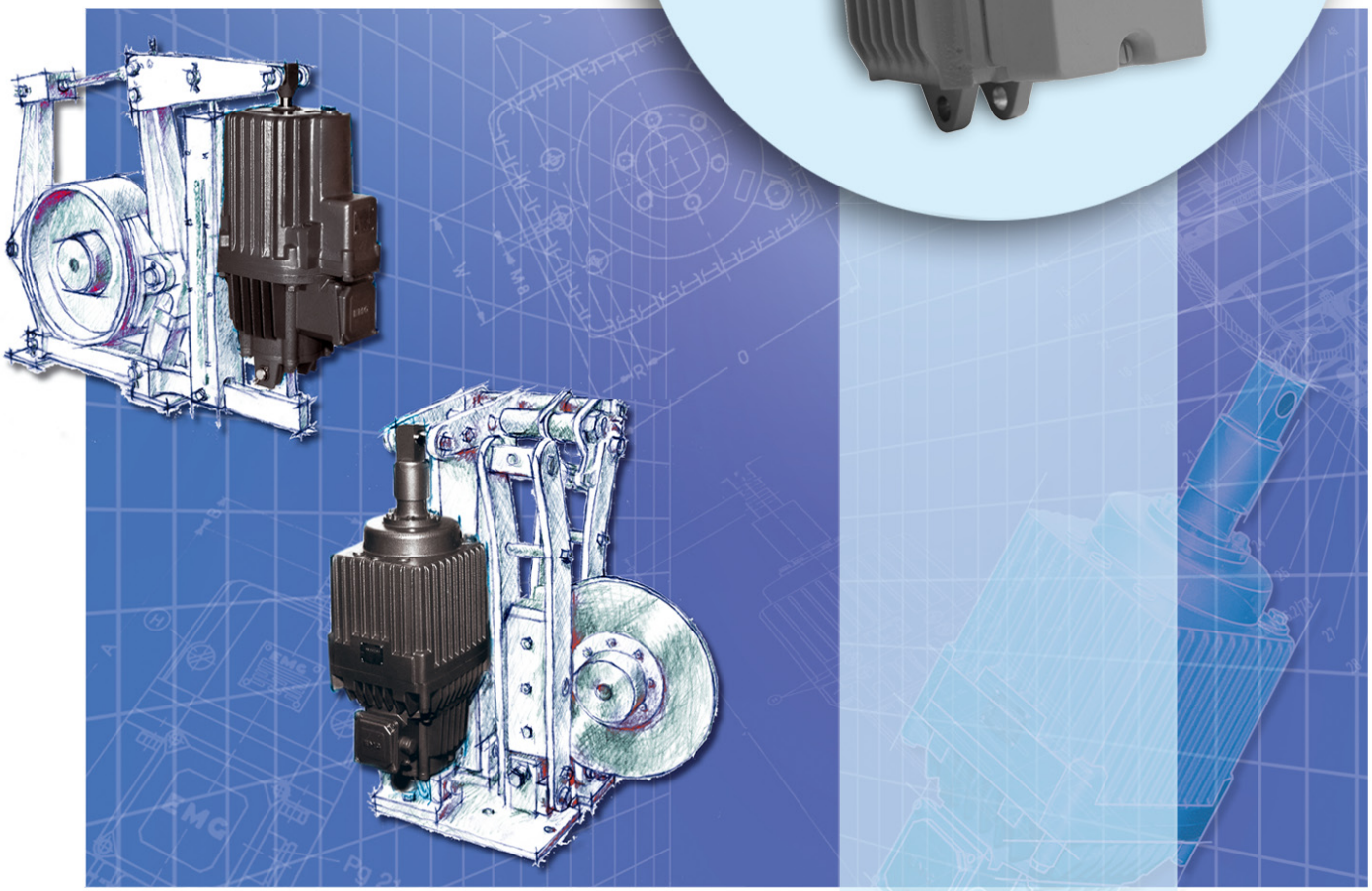
EMG ELDRO®

Ed12/4

Electro-hydraulic thrusters ELDRO®





The safety component

TÜV MANAGEMENT SERVICE
ISO 9001
Zertifiziertes Qualitätsmanagementsystem
Registrier-Nr. 12 100 16893

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Technical Data

Technical parameters

Rated lifting power	120 N
Max. lifting power	approx. 190 N
Max. stroke	40 mm
Lifting time with rated load	0,3 s
Lowering time with rated load	0,3 s
Continuous duty with tR 40°C	100% duty cycle
Switching duty 40% duty cycle	up to 2000 c/h
Weight including hydraulic oil	7,5 kg

Vertical and horizontal operating position
(horizontal: the terminal box must be fitted on top,
Vertical: deviations of +/- 15° off the vertical line are allowed)

Characteristics

Springs
- C-brake spring with restoring rated value with 14 mm stroke = 110 +/- 10 N
- Damping spring D with installed C-spring

Electrical values
- Three-phase A.C. voltages of 220 V to 690 V, 50 Hz or 60 Hz
  (twin voltages as 230/460 V or similar on request)
- Terminal board 3 or 6 pins M5
- Protective conductor connection M5
- Cable gland connecting piece M25 x 1,5
- Motor power consumption (cold) 120 Watt (with 50 Hz)
- Current consumption (cold) 0,36 A (with 400V, 50 Hz)

Mechanical design
- Material of enclosure: saltwater-proof aluminium
- Coating: 2-compoment coating, at least 80µm, RAL 7022
- Outside of steel and bright parts electroplated
- Degree of protection IP 65
- Design with distorted foot Ed 12/4.1; Fitting dimension 286 mm

Oil filling
- With ambient temperatures of -25 °C to +40 °C: Shell Morlina 10
- With -35 °C to +40 °C: Silikon M10
- For different ambient temperatures, please contact the manufacturer

Accessories
- Lowering valve

Type designation

Ed 12/4	Standard unit (A=265 mm)
Ed 12/4.1	Unit as above, however with screwed-on foot (A=286 mm)

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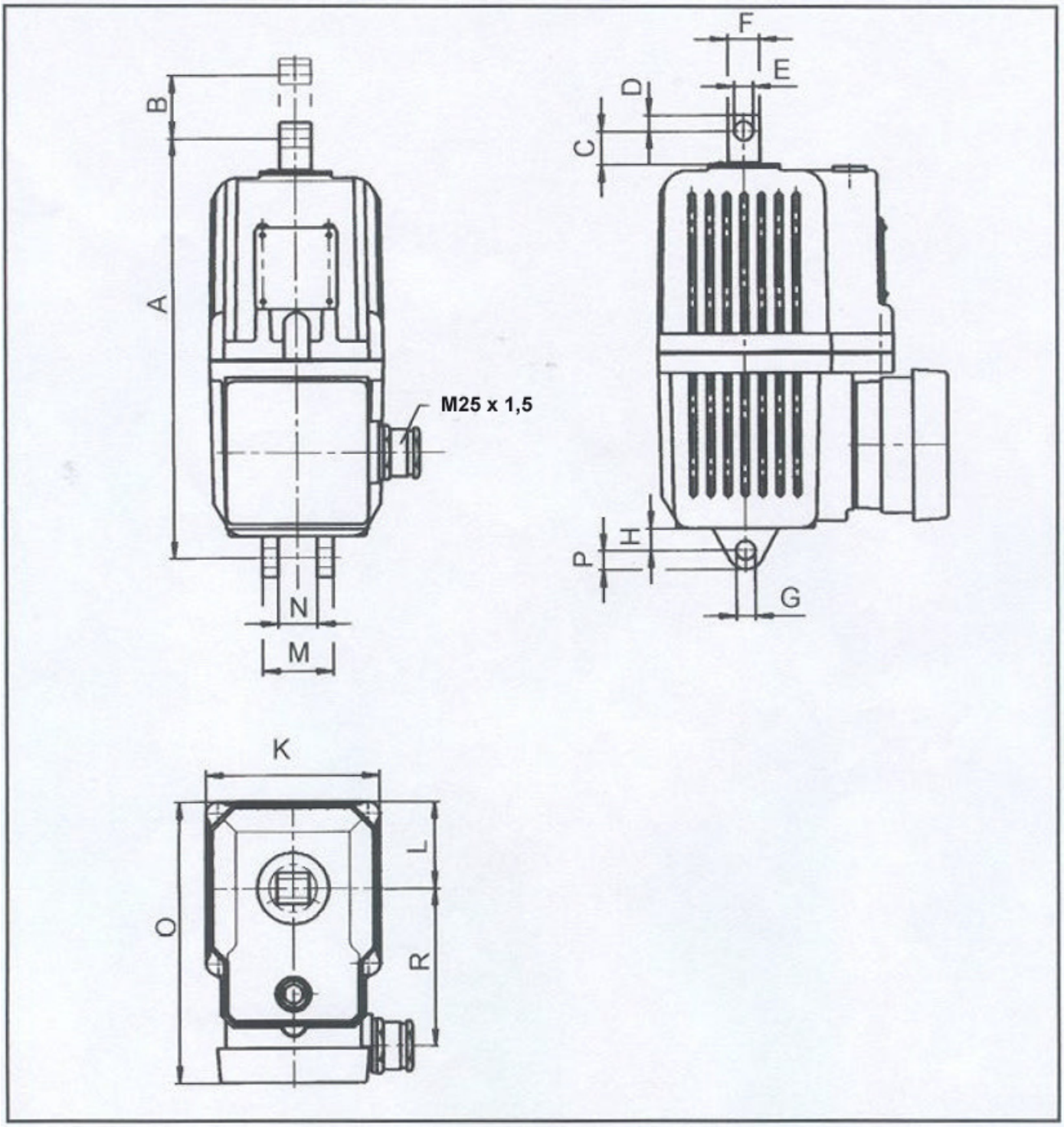
Main dimensions



Dimension table

Typ	A	B	C	D	E	F	G	H	K	L	M	N	O	P	R
Ed 12/4	265	40	20	10	12	20	12	12	110	55	45	25	178	14	100
Ed 12/4.1	286	40	20	10	12	20	16	16	110	55	60	40	178	23	100

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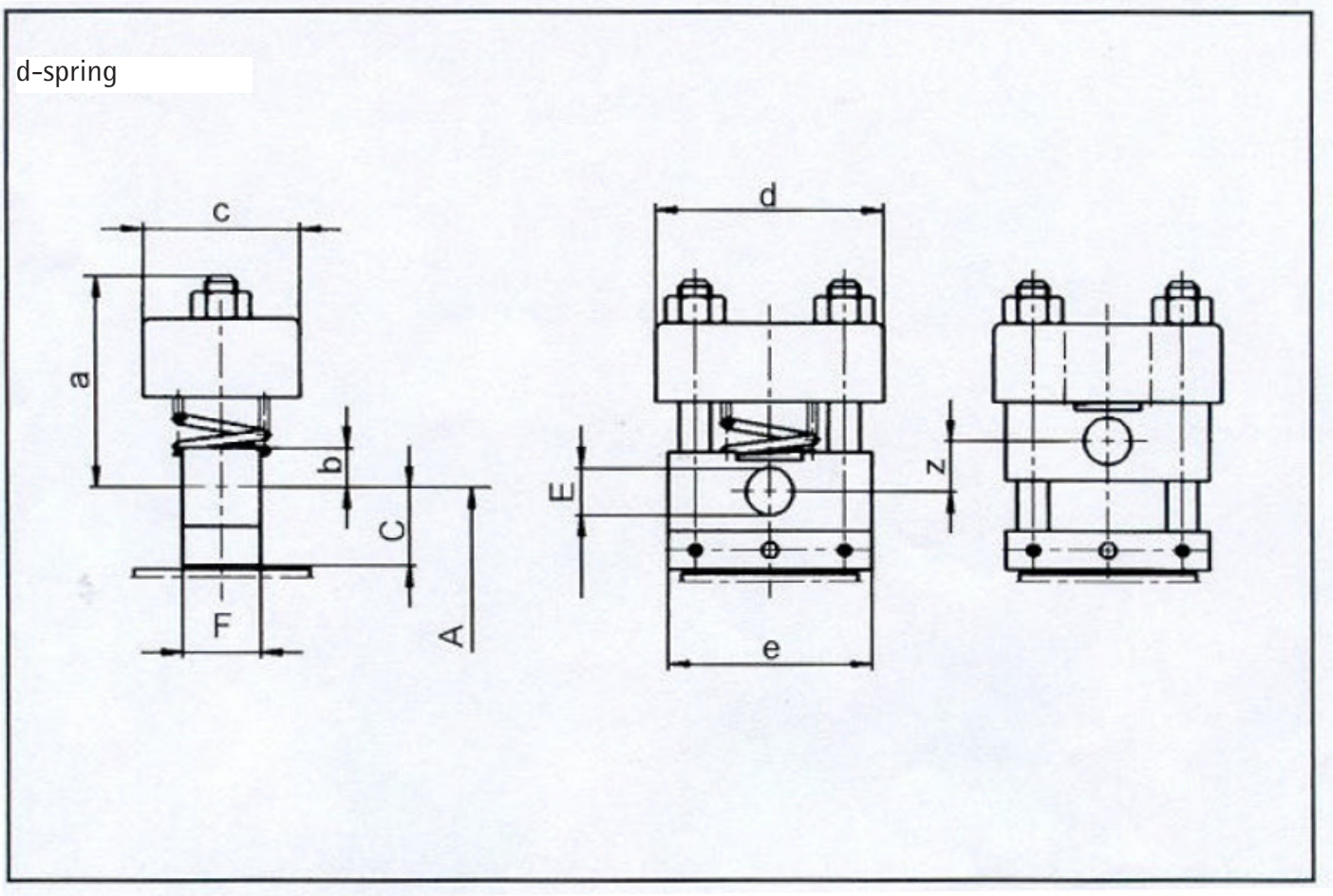
Main dimensions



Dimension table

Typ	a	b	c	d	e	z	C	E	F
Ed 12/4 **Ed 12/4.1**	54	10	40	58	52	13	20	12	20

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Setting of lowering valve for Ed 12/4 S

The lowering time of the Ed 12/4 units can be set with rated load (120) within a scope of about 20 s (maximum) to 0,5 s (minimum). With a load of 60 N the lowering time can be set from 35 s to 1 s.

The setting of the lowering time is effected by means of a setting screw situated at the top side of the cylinder jacket below the closing cap (refer to figure 1).

The possible setting range of the screw comprises 4 rotations. Zero rotations mean in this connection: the screw is screwed in to its limit stop.

The following diagram shows the relationship between lowering time and the number of rotations of the setting screw.

Figure 1: Top view Ed 12/4 S

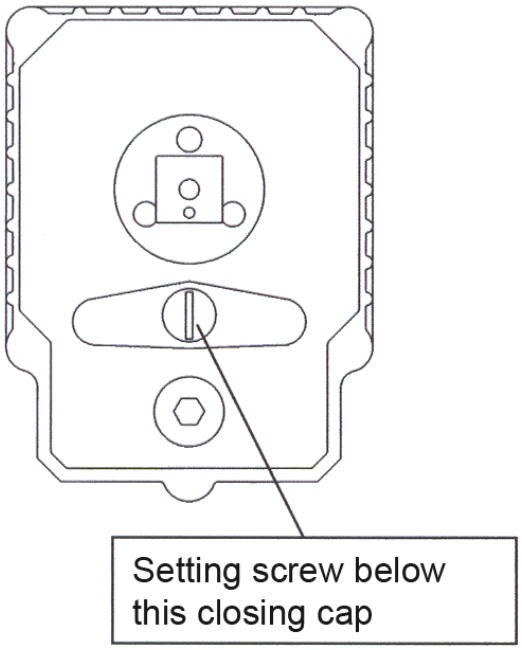
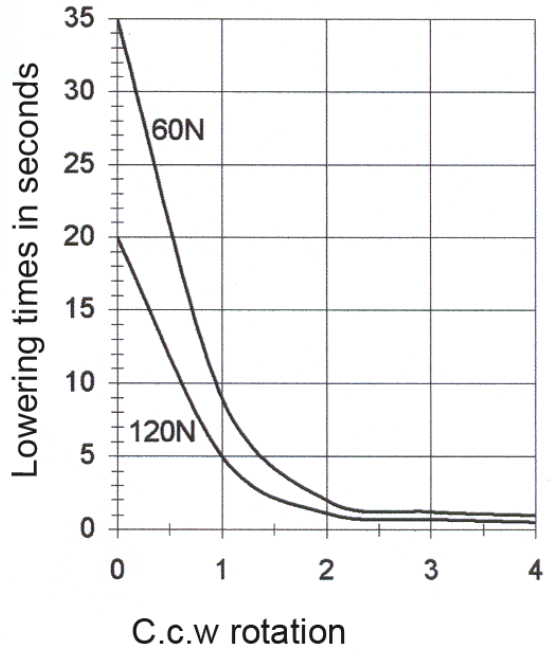


Figure 2: Lowering times Ed 12/4



The times mentioned in the diagram are applicable for a unit temperature of 20 °C and with a rated load of 120 N and with half the rated load (60 N), respectively. The factory configuration of the ELDRO® units is at 2 rotations. This involves lowering times of about 1 s or 2 s. The lowering time can be set at site in conformity with the requirements of the plant.

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