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ELECTROHYDRAULIC RELEASES ZE-DIN



ZE-DIN IS A TYPE-SERIES OF RELEASES, WHICH ARE SUBSTITUTES FOR RELEASES MANUFACTURED IN ACCORDANCE WITH THE DIN 15430 STANDARD AND VARIANTS BASED ON THE DIN 15430 STANDARD

Applications

Its operation consists in advance of the piston rod with appropriate force and to specific stroke. Releases are used mainly in brakes to disengage (open) expansion and disc brakes. Thanks to the built-in springs, not only they disengage brakes, but also induce the braking moment. Releases may be used wherever reciprocating work is needed, e.g. to engage/disengage dampers and valves, to open and close flaps, doors, to raise and lower barriers, to move levers and links, etc. Releases are driven by inductive three-phase cage motors, installed inside the release housing, which can be rated up to 500 V AC and 50 Hz. The release can be used both for continuous operation S1 as well as for periodically interrupted operation S3 with relative loading time up to 100% and number of actuations up to 2000 c / h.

Identification of releases

ZE-DIN - denotes the basic version of the release.

ZEW-DIN - denotes a release version with built-in mechanical link, which can be used for indication of piston rod raising to its top position.

ZEM-DIN - denotes a release version with integrated solenoid, intended to keep the piston rod in its top position and to allow the release motor to be switched off (a mechanical link, built inside is used to control the motor switching on and off)¹⁾.

The release can be fitted with valve delaying:

- lowering of piston rod (ZE...O-DIN),¹⁾
- raising of piston rod (ZE...P-DIN),¹⁾
- raising and lowering, viz. damping valve (ZE...T-DIN)¹⁾

Version

Normal N/1 – intended for outdoor operation, in moderate climatic conditions.

The release has an oil-tight enclosure with terminal box of protection rating IP 65 according to PN-EN 60529:2003.

The release in the standard version is intended for operation in upright position and at 30° angle. Special versions, intended for horizontal operation (Lv) can also be manufactured.

Ambient temperature:

-25 °C to +40 °C (electro-insulating transformer oil)

-40 °C to +50 °C (DOW CORNING Fluid 200 – 10 cSt silicon oil)

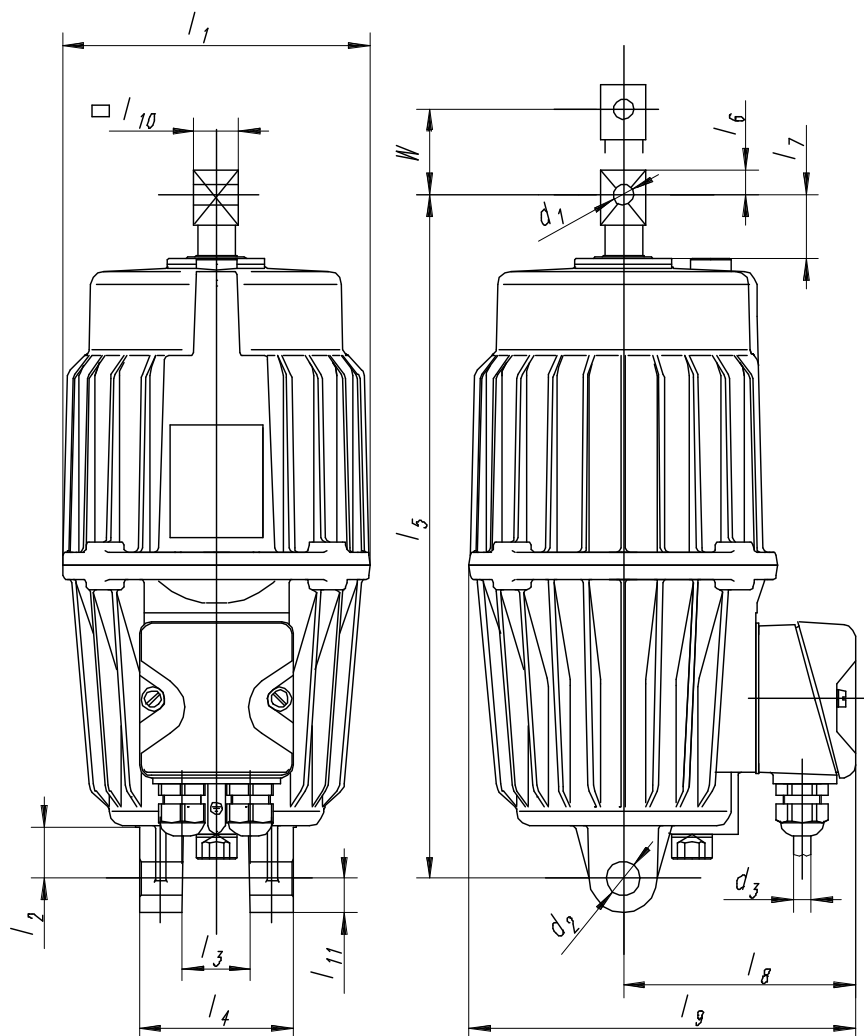
Notes:

- 1) In case of ZEM-DIN releases and releases equipped with retardant valves, the operation mode is limited to S1 and S3 40% 600 c/h
- 2) In case of releases with return spring, the required extension force is assumed as 10% of the rated force
- 3) Other voltage versions can also be manufactured.
- 4) Electric specifications of the ZEM-DIN version
- 5) The spring with the stated parameters is only available in the ZE-DIN and ZEW-DIN version

* Piston rod extension and retraction times depend on the external loading force and on the force of the internal return spring used (we will provide these values on customer's request)

Physical dimensions

The DIN 15430 -compatible type-series and DIN 15430-based variants



Dimensions [mm]	DIN 15430 -compatible type-series and DIN 15430-based variants														
	ZE 300-50-DIN	ZE 500-50-DIN	ZE 500-60-DIN	ZE 800-60-DIN	ZE 800-120-DIN	ZE 800-160-DIN	ZE 1250-60-DIN ZE 1500-60-DIN	ZE 1250-120-DIN	ZE 1250-160-DIN ZE 1500-160-DIN	ZE 2000-60-DIN ZE 2500-60-DIN	ZE 2000-120-DIN	ZE 2500-160-DIN	ZE 3000-60-DIN	ZE 3000-120-DIN	ZE 3200-100-DIN
l_1	150	180	210					254							
l_2	18	30	25					30							
l_3	40^{+2}	60^{+2}	70					40^{+2}							
l_4^{+1}	80	120					90								
l_5	370	435	458	530	573	645	705	645	705	660	705	660	705	660	
l_6	15	18					25								
l_7	37	71	42,5	44,5	46,5	103					144	97	52	97	52
l_8	130	135	143					152							
l_9	205	225	248					279							
$\square l_{10-0,1}$	25	30					40								
l_{11}	16	20	22					25							
d_1 F9	16	20					25								
$d_2^{+0,1}$	16,1	20,1					25,1								
d_3	9÷14														
W	50	50	60	60	120	160	60	120	160	60	120	160	60	120	100

Technical data

Release	Piston rod stroke	Rated force of piston rod advance ²⁾	Version with spring	Return force of piston rod to 1/3 stroke $\pm 10\%$	Motor			Electromagnet ⁴⁾		Weight without oil (basic version)	Weight oil
					Supply voltage at 50 Hz ³⁾	Current intensity	Rated power	Supply voltage ³⁾	Current intensity		
	W[m m]	F _z [N]		F _s [N]	U[V]	I[A]	P[W]	U _e [VDC]	I _e [A]	m[kg]	m _o [kg]
ZE 300-50-DIN	50	300	S 120 S 200 S 270	120 200 270	3x230 3x400 3x500	0,95 0,55 0,45	180	38	0,42	9,5	2,0
ZE 500-50-DIN	50	500	S 180 S 320 S 500	180 320 500	3x230 3x400 3x500	0,95 0,55 0,45	200	38	0,40	12	3,5
ZE 500-60-DIN	60	500	S 180 S 320 S 500	180 320 500						12	3,5
ZE 800-60-DIN	60	800	S 450 S 800	450 800	3x230 3x400 3x500	2,10 1,20 0,90	450	38	0,45	19,5	4,5
ZE 800-120-DIN	120	800	S 450	450						21	5,5
ZE 800-160-DIN	160	800	S 450	450						21,5	6,5
ZE 1250-60-DIN	60	1250	S 450 S 800	450 800						21	5,5
ZE 1250-120-DIN	120	1250	S 450 S 800	450 800						21,5	6,5
ZE 1250-160-DIN	160	1250	S 450 S 800	450 800						21,5	6,5
ZE 1500-60-DIN	60	1500	S 450 S 800 S 1250 ⁵⁾	450 800 1250						21	5,5
ZE 1500-160-DIN	160	1500	S 450 S 800	450 800	21,5	6,5					
ZE 2000-60-DIN	60	2000	S 700 S 1300 S 2000	700 1300 2000	3x230 3x400 3x500	2,35 1,45 1,05	550	38	0,8	28	8
ZE 2000-120-DIN	120	2000	S 700 S 1300 S 2000	700 1300 2000						33	11
ZE 2500-60-DIN	60	2500	S 700	700						28	8
ZE 2500-160-DIN	160	2500	S 700 S 1300	700 1300						33	11
ZE 3000-60-DIN	60	3000	S 700 S 2500 S 3000	700 2500 3000						34	10
ZE 3000-120-DIN	120	3000	S 1300 S 2000	1300 2000						34	10
ZE 3200-100-DIN	100	3200	S 700 S 2000 S 2500	700 2000 2500						34	10

Ordering information

ZE

Version	
Basic	
With switch	W
With electromagnet	M

Version with delay valves	
Raising	P
Lowering	O
Raising and lowering (damping valve)	T

Mechanical size
300, 500, 800, 1250, 1500, 2000, 2500, 3000, 3200

Piston rod stroke	
ZE 300, ZE 500	50
ZE 500, ZE 800, ZE 1250, ZE 1500, ZE 2000, ZE 2500, ZE 3000	60
ZE 3200	100
ZE 800, ZE 1250, ZE 2000, ZE 3000	120
ZE 800, ZE 1250, ZE 1500, ZE 2500	160

- DIN

Operating voltage/frequency
230, 400, 500 VAC / 50 Hz
Possibility of other voltage variations

Operating position	
	Upright ±30°
Lv	Horizontal

	Standard version (with transformer oil)
SIL	Special version (with silicon oil)

	Basic version
S120, S180, S200, S270, S320, S450, S500, S700, S800, S1250, S1300, S2000, S2500, S3000	Version with spring

Sample order:

- ZE 500-50-DIN S180.500 VAC/50Hz
- ZEM 1250-60-DIN S800.400 VAC/50Hz
- ZEW 2500-160-DIN.400 VAC/50Hz
- ZE 800-60-DIN S450 SIL-Lv.400 VAC/50Hz

**The producer reserves the right to modify as a result of developing the product.
It is possible to realize special versions.**