Linear actuator DSZY3-LT-HS2 (Limit switches + 2-channel Hall sensor)

DSZY3 electric linear actuators are required in a wide variety of applications. Therefore, it is available in six models:

1. DSZY3-STD (Standard)
   (for all applications without position feedback)
2. DSZY3-POT
   (with potentiometer for absolute position feedback)
3. DSZY3-HS2
   (with 2-channel Hall sensor for incremental position feedback)
4. DSZY3-LT
   (with integrated limit switches)
5. DSZY3-LT-POT
6. **DSZY3-LT-HS2**

Equipped with a ball screw spindle (Ball screw), it is a durable and robust DC linear drive, thus achieving high self-locking. In addition, mechanical overload protection has been integrated.

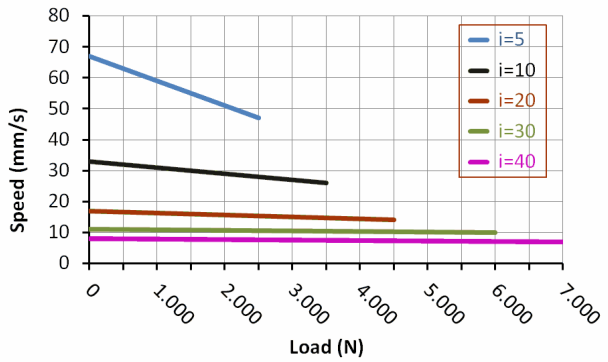
Type code (all options can be combined)

DSZY3 -	12 -	10 -	203 -	LT-HS2 -	IP65
Type	**Input voltage**	**Gear reduction i**	**Stroke**	**Model**	**IP Code**
	12 Vdc 24 Vdc	05 10 20 30 40	102 mm 153 mm 203 mm 254 mm 305 mm 457 mm 610 mm	LT-HS2: integrated limit switches and 2-channel Hall sensor (with position feedback)	

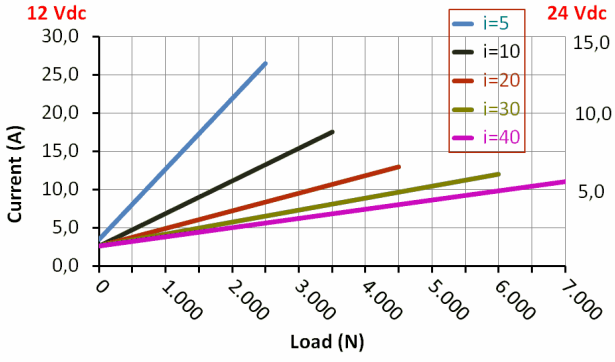
Performance data: Load – Speed – Current

Gear reduction i	Dynamic load (N)	Static load (N)	Typical speed * (mm/s)		Typical current * (A)			
			minimum laod	maximum load	minimum laod		maximum load	
					12 Vdc	24 Vdc	12 Vdc	24 Vdc
5	2,500	approx. 5,000	67.1	47.2	3.4	2.6	26.4	13.2
10	3,500	approx. 6,000	33.5	26.7	2.6	1.6	17.6	8.8
20	4,500	approx. 8,000	16.8	14.3	2.6	1.6	13.2	6.6
30	6,000	approx. 11,000	11.2	9.8	2.6	1.6	12.1	6.1
40	7,000	13,600	8.4	7.4	2.6	1.6	11.0	5.5

Load – Speed – Diagram *



Load – Current – Diagram *



(*) Average values

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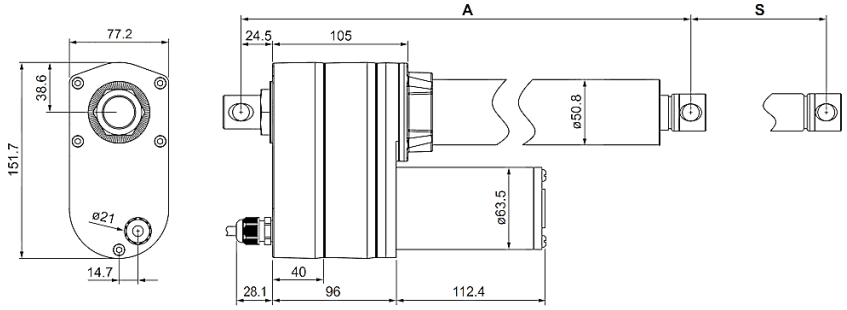
Additional technical specifications

- Thrust and tensile load up to 7,000 N
- Static load up to 13,600 N (at i=40)
- Working temperature -25 C° to +65 C°
- Duty cycle 25 % (2 min continuous operation – 6 min pause)
- Zinc alloy casing
- **Stainless steel** piston rod
- IP Code IP65 for all models (in idle state)
- CE - EMV 2014/30/EU (EN 61000-6-3:2007+A1:2011)
- EN -61000-6-1:2007
- IEC 61000-4-2:2008
- IEC 61000-4-3:2006+A1:2007+A2:2100
- IEC 61000-4-8:2009

Dimensions

Dimensions (length) in mm (Tolerance ± 5 mm)							
Stroke (S) ± 3 mm	102	153	203	254	305	457	610
(A) retracted	399	450	501	552	680	832	985
(A+S) extended	501	603	704	806	985	1,289	1,595



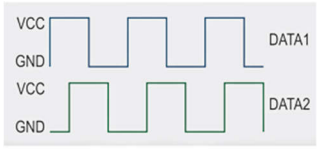
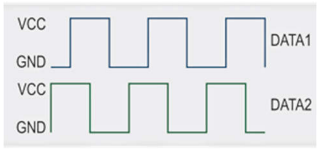
Weight

Stroke in mm	Type	102	153	203	254	305	457	610
Weight in kg (incl. packing) approx.	LT-HS2			6.3	6.6	6.9	7.7	

Pin assignment

Gear reduction i	05 – 10 – 20 – 30 – 40
Red	Red wire to Vdc „+“ and black wire to Vdc „-“: Piston rod extends
Black	

2-channel Hall sensor

Power		2-channel Hall sensor			
Red	Black	White	Yellow	Blue	Green
M+	M-	GND	Vcc	Data1	Data2
					

Voltage input range: Vcc: 3-5 - 26 Vdc - Output voltage of signal: Data1 / Data2 = Vcc
Pulse: 0.787 pulses/mm resp. 1.27 mm/pulse - Hall sensor resolution: 20 ppi

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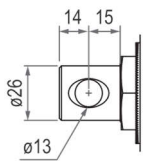
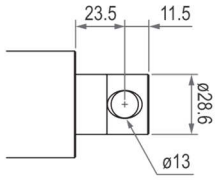
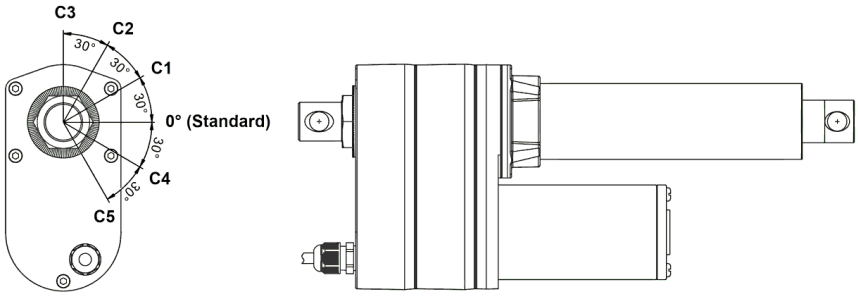
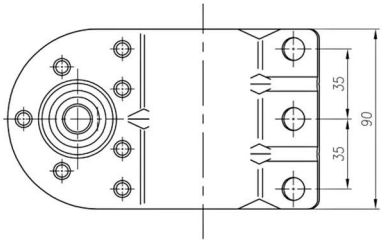
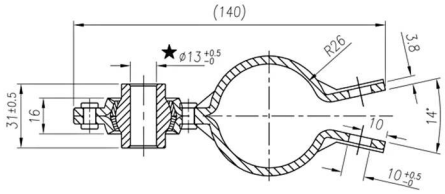
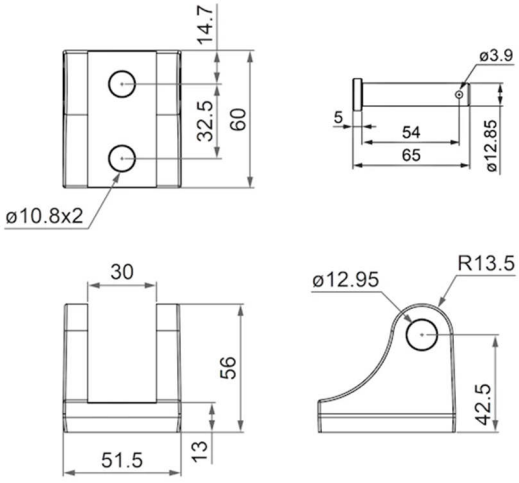
Front and rear connector

Rear connector all Types	Font connector (piston rod) POT, HS2, LT, LT-POT, LT-HS2
	

Fastening to the gearbox cover
 Note: As an example in 0° orientation
The mounting holes on the piston rod and on the gearbox cover are designed in the 0° orientation as standard. Optionally, a different angle (see picture) can be selected for the gearbox cover and piston rod. The angle between the selectable stages is 30° in each case. Option C1 to C5 is appended to the type code: DSZY3.....-C34 The 1st number stands for the gearbox cover. The 2nd number stands for the piston rod.

Mounting material

Clamp DSZY2/3/5/6/8-H01	Mounting bracket DSZY2/3/5/6/8-H02
	
 	

Installation instructions

Please note the correct supply voltage as indicated on the electric linear actuator. It must be ensured that the load is not greater than shown in the diagram. To protect against overload, the voltage must be switched off when the maximum current is reached. This can be read in the diagram depending on the selected reduction ratio.

The piston rod is secured against rotation.

In an emergency, the linear actuator is protected by a mechanical overload clutch. The response of this clutch is expressed in a loud rattling tone.

CAUTION: The overload coupling is not designed for continuous use. Instead, it is intended for emergencies, for example, if current monitoring fails. The use of external limit switches is therefore strongly recommended in the standard model.

CAUTION: Please observe the correct wiring for the retraction or extension (see pin assignment in the data sheet).

The load should always be centered in the direction of movement. Transverse forces must be avoided. They always shorten the service life and can impede the function or even destroy the device in extreme cases.

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