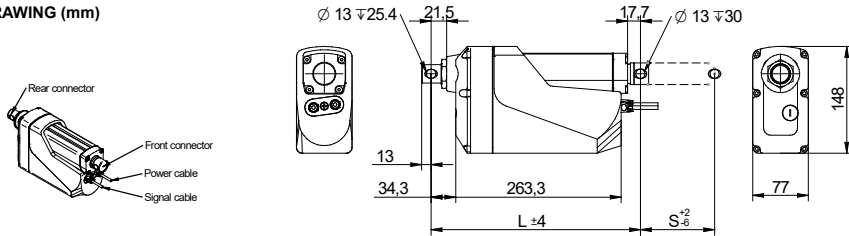


## DRAWING (mm)



## PHOTO



## MODEL NO. DESIGNATION

DHI - VOLTAGE - GEAR RATIO - B - STROKE LENGTH - HS2 - IP69K

Example: DHI-12-5-B-100-HS2-IP69K

## ACCESSORIES



● C = customizations are offered on demand even for smaller quantities. Typical customizations are indicated with a green dot at column end. Please contact us for any customization request.

## ACTUATOR DATA

		5:1	10:1	15:1	20:1	30:1	C
Gear ratio		5:1	10:1	15:1	20:1	30:1	●
Voltage	V	12   24	12   24	12   24	12   24	12   24	
No load current	A	3.0   1.5	3.0   1.5	3.0   1.5	3.0   1.5	3.0   1.5	
Full load current	A	18   9	18   9	18   9	20   10	18   9	
Duty cycle	%	25	25	25	25	15	
Push/pull max.	N	1700	2600	4500	6800	10000	
Full load speed	mm/s	49	29	17	13	8	
No load speed	mm/s	66	40	24	18	11	

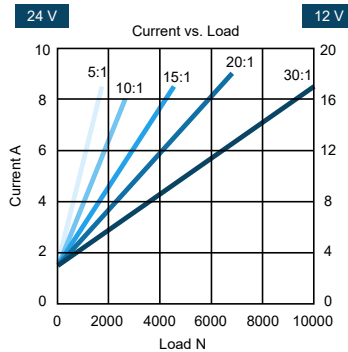
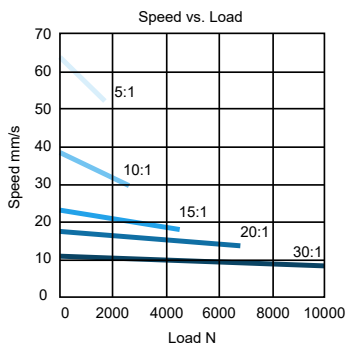
## ACTUATOR STROKE DATA

		100	200	300	400	500	C
Stroke length   S	mm	100	200	300	400	500	●
Retracted length   L	mm	290	390	490	590	690	
Life time no. of single strokes		160000	80000	53000	40000	32000	
Weight	kg	4.8	5.8	6.3	6.8	7.8	

## CONTROL OPTIONS

	HS2
Control platform <sup>1</sup>	Dual hall sensor
H-bridge	-
Potentiometer output	-
Hall signal output	●
EoS signal output <sup>2</sup>	●
Soft start/stop	-
Voltage protection	-
Temperature monitoring	-
Action status feedback	-
Current feedback	-
Position feedback	-
Speed/ramp feedback	-
Error code feedback	-

## ACTUATOR PERFORMANCE GRAPHS 12 V | 24 V



## ACTUATOR FEATURES

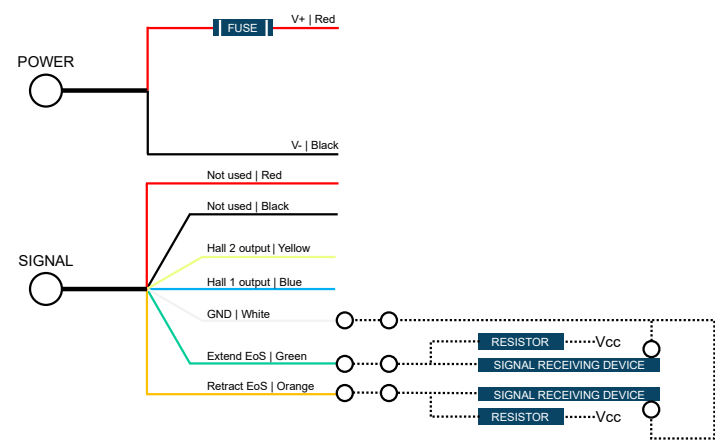
			C
Motor type <sup>3</sup>		Brushed DC motor	●
Power cable		AWG14	
Signal cable		AWG22	
Cable length	mm	500	●
Screw type		Ball screw	
Limit switch		Yes	
Over current protection <sup>4</sup>		Yes	
Max. duty operational time	s	60	
IP rating		IP69K static   IP66 dynamic	
EMC		EMC Directive 2014/30/EU	
Operating temperature	°C	-40 to 80	
Relative humidity <sup>5</sup>	%	10 to 90	
Manufacturing standard		ISO 9001:2015	
Performance tolerances	%	$\pm$ 15	
Fuse specification <sup>6</sup>	A	40   20	
Stroke length <sup>7</sup>	mm	100 to 500	●

**WARNING!** It is forbidden to use Pulse Width Modulation (PWM) as input power to DHI as it will cause malfunction and cause permanent damage.

## NOTES

- Other control platforms available. See page 3 for more information.
- End of stroke signal output is not potential free. An external 5~24 V power and pull-up resistor are required. (10 k $\Omega$  resistor is recommended)
- Brushed DC motor is the standard configuration. Brushless DC motor available as an option. Contact us for more information.
- Over current protection specifications 25 A at 12 V DC and 12.5 A at 24 V DC, actuator will be stopped automatically. Over current protection is only applicable in emergency situations. It should not be used for the normal routine stopping needs of the actuator, as this may cause permanent damage.
- Non-condensing.
- 40 A for 12 V and 20 A for 24 V.
- Contact us for stroke lengths above 500 mm.

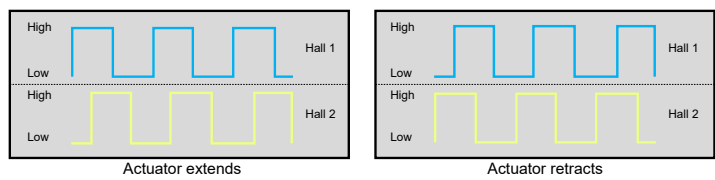
**ACTUATOR WIRING DIAGRAM HS2** C



**ACTUATOR WIRING CONFIGURATION HS2**

Wire	Symbol	Description
Red	V+	Connect red wire to "V+" and black wire to "V-" of DC power to extend the actuator. Switch the polarity of DC input to retract it.
Black	V-	Input voltage is according to actuator voltage specification.
Red	Not used	-
Black	Not used	-
Yellow	Hall 2 output	$V_{out\_High} = V+ (DC\ Power) - 1.2\ V, I_{max} 12.7\ mA$
Blue	Hall 1 output	$V_{out\_Low} = GND$
White	GND	Signal GND. Both for Hall output and customer signal receiving device.
Green	Extend EoS Output	Input voltage $V_{cc} = 5 \sim 24\ V$ .
Orange	Retract EoS Output	Signal voltage during stroke = GND (Normally closed circuit). End of stroke signal voltage = Vcc (Open circuit).

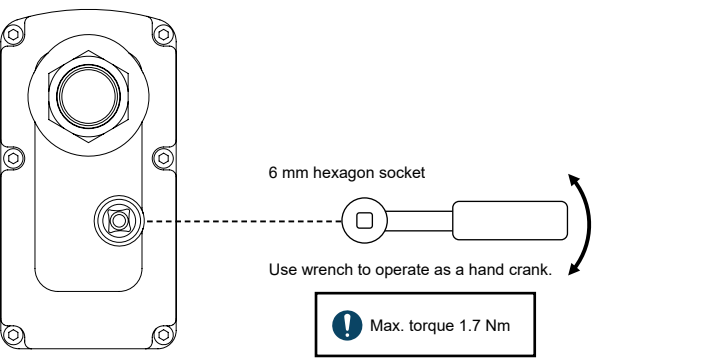
**HALL SIGNAL GRAPH HS2**



**HALL SIGNAL RESOLUTION HS2** C

Gear ratio		5:1	10:1	15:1	20:1	30:1
Resolution	Pulse/mm	1.1	1.8	3.0	3.9	6.2

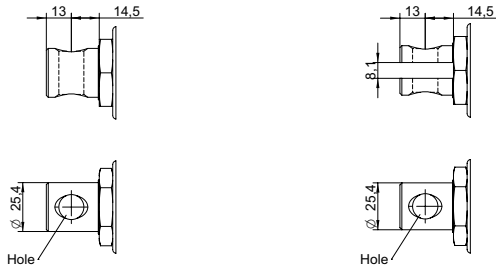
**MANUAL OPERATION FUNCTION | HAND CRANK**



**HAND CRANK SPECIFICATION**

Gear ratio		5:1	10:1	15:1	20:1	30:1
Distance per crank revolution	mm	2.2	1.3	0.80	0.61	0.39

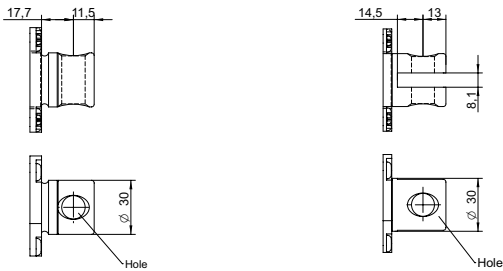
## ACTUATOR REAR CONNECTOR OPTIONS



### ACTUATOR REAR CONNECTOR OPTIONS DATA<sup>1</sup>

Connector type	Metal solid   Metal slot	C
Hole diameter	mm 12.2   13	
Description	Contact us for more information.	

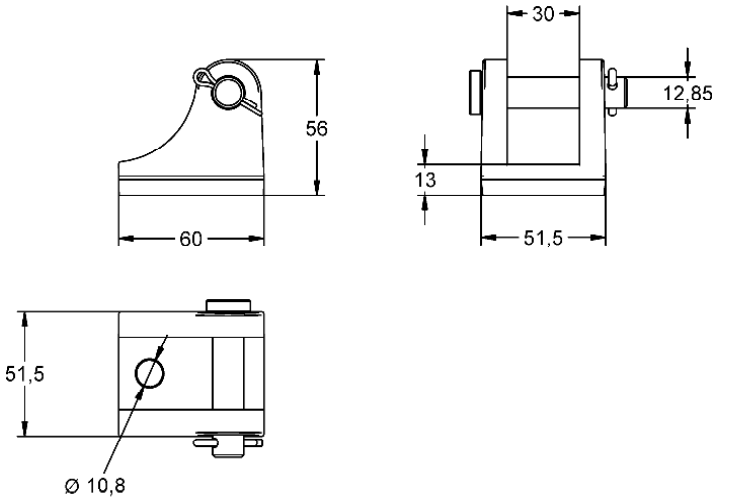
## ACTUATOR FRONT CONNECTOR OPTIONS



### ACTUATOR FRONT CONNECTOR OPTIONS DATA<sup>1</sup>

Connector type	Metal solid   Metal slot	C
Hole diameter	mm 12.2   13	
Description	Contact us for more information.	

## MOUNTING BRACKET DRAWING ALA-13



### MOUNTING BRACKET SPECIFICATION ALA-13

Model name	ALA-13
Max. load	N 17000
Material	SUS304 Stainless Steel
Weight	kg 0.55

CONTROL OPTIONS	POT <sup>2</sup>	HS2 <sup>2</sup>	CCB <sup>2</sup>	NO <sup>3</sup>	CNO <sup>3</sup>	CPOT <sup>3</sup>	CHS2 <sup>2</sup>	C
H-bridge	-	-	●	-	●	●	●	
Potentiometer output	●	-	-	-	-	●	-	
Hall signal output	-	●	●	-	-	-	●	
EoS signal output	●	●	●	●	●	●	●	
Soft start/stop	-	-	●	-	●	●	●	
Voltage protection	-	-	●	-	●	●	●	
Temperature monitoring	-	-	●	-	●	●	●	
Action status feedback	-	-	●	-	-	-	-	
Current feedback	-	-	●	-	-	-	-	
Position feedback	-	-	●	-	-	-	-	
Speed/ramp feedback	-	-	●	-	-	-	-	
Error code feedback	-	-	●	-	-	-	-	

## NOTES

- Standard configuration is metal solid, hole diameter 13 mm.
- Standard configuration, see separate datasheet on [www.transmotec.se](http://www.transmotec.se).
- Custom control option, contact us for more information.