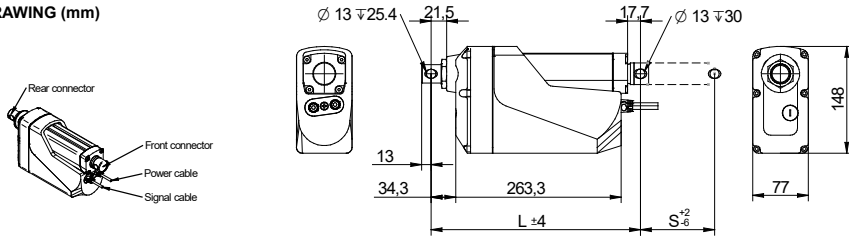


DRAWING (mm)



PHOTO



MODEL NO. DESIGNATION

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

Example: DHI-12-5-B-100-CCB-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							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							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		CCB
Control platform ¹		Canbus J1939
H-bridge ²		●
Potentiometer output		-
Hall signal output		●
EoS signal output ³		●
Soft start/stop		●
Voltage protection ⁴		●
Temperature monitoring ⁵		●
Action status feedback		●
Current feedback		●
Position feedback		●
Speed/ramp feedback		●
Error code feedback		●

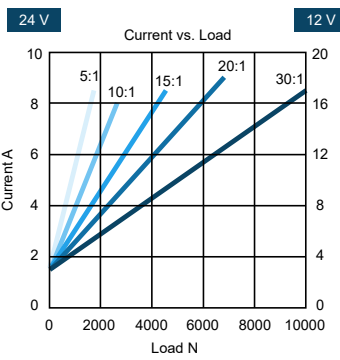
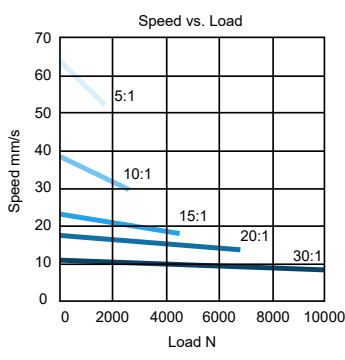
ACTUATOR FEATURES			C
Motor type ⁶		Brushed DC motor	●
Power cable		AWG14	
Signal cable		AWG22	
Cable length	mm	500	●
Screw type		Ball screw	
Limit switch		Yes	
Over current protection ⁷		Yes	
Max. duty operational time	s	60	
IP rating		IP69K static IP66 dynamic	
EMC		EMC Directive 2014/30/EU	
Operating temperature	°C	-40 to 80	
Relative humidity ⁸	%	10 to 90	
Manufacturing standard		ISO 9001:2015	
Performance tolerances	%	± 15	
Fuse specification ⁹	A	40 20	
Stroke length ¹⁰	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

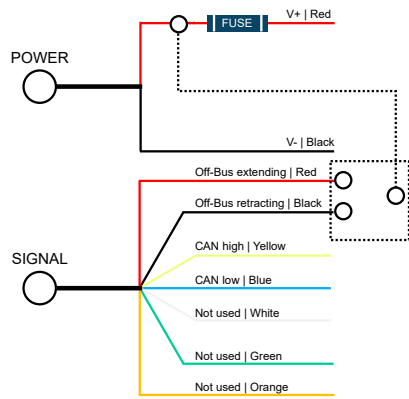
- Other control platforms available. See page 3 for more information.
- The polarity of input DC power for the signal control options must be fixed and cannot be switched.
- End of stroke signal output is not potential free. An external 5-24 V power and pull-up resistor are required. (10 kΩ resistor is recommended)
- Voltage protection: The allowable input voltage is 9-16 V at 12 V DC and 18-32 V at 24 V DC. If it exceeds this range, the actuator will be stopped automatically.
- When it is detected that the temperature is lower than 0°C, the overcurrent protection setting value will be automatically increased by 30 %, which will reduce the over current protection caused by low temperature.
- 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 PERFORMANCE GRAPHS 12 V | 24 V

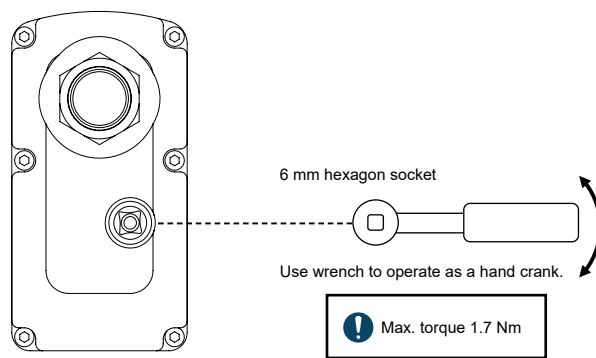


ACTUATOR WIRING DIAGRAM CCB

C



MANUAL OPERATION FUNCTION | HAND CRANK



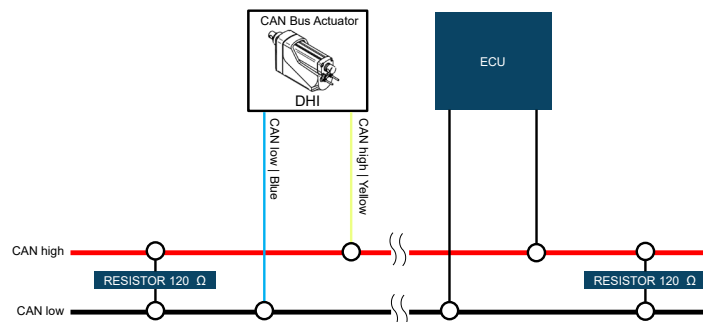
ACTUATOR WIRING CONFIGURATION CCB

Wire	Symbol	Description
Red	V+	Connect Red to positive. Connect Black to negative. Do not swap the polarity.
Black	V-	Input voltage: 9 ~ 16V at 12 V DC, 18 ~ 32 V at 24 V DC
Red	Off-Bus extending	-
Black	Off-Bus retracting	-
Yellow	CAN high	Vout High = V+ (DC Power) - 1.2 V, I _{max} 12.7 mA Vout Low = GND
Blue	CAN low	-
White	GND	-
Green	Not used	-
Orange	Not used	-

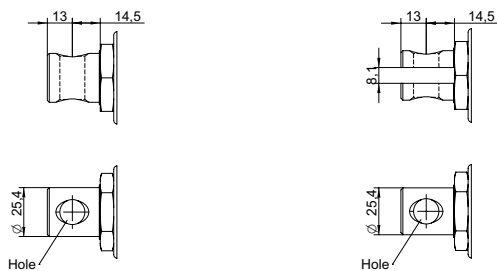
HAND CRANK SPECIFICATION

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

WIRING DIAGRAM SAE J1939 SYSTEM



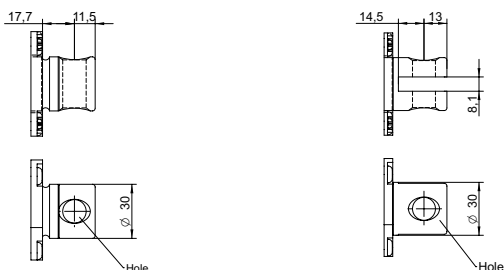
ACTUATOR REAR CONNECTOR OPTIONS



ACTUATOR REAR CONNECTOR OPTIONS DATA¹

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

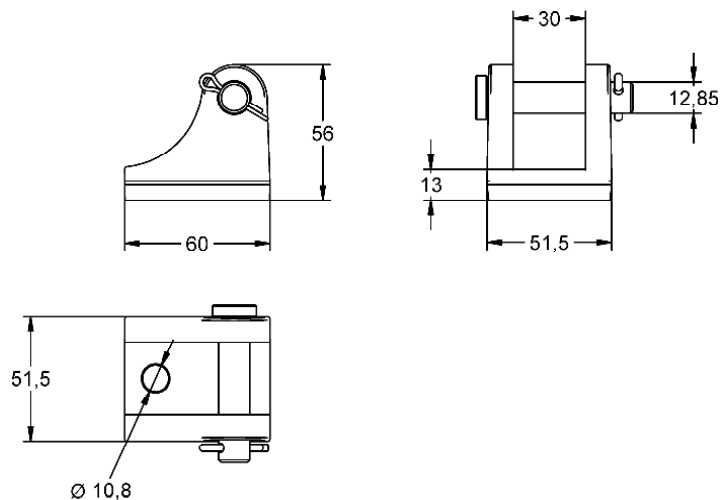
ACTUATOR FRONT CONNECTOR OPTIONS



ACTUATOR FRONT CONNECTOR OPTIONS DATA¹

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 ²	HS2 ²	CCB ²	NO ³	CNO ³	CPOT ³	CHS2 ²	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.
- Custom control option, contact us for more information.