

8MHD LJ200-200-A

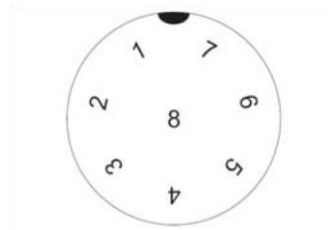
Specifications

Travel distance: 100mm
Load capacity: 50kg
Positioning accuracy: 0.1 mm
Net weight: 9 kg

Motor: Stepper Motor DPM60SH86-2008AF
Limit Sensor: MOC7811 optical interrupter at bottom and top ends

Connector Pinout

(Note: Pictured connector is replaced to DB15F connector for 8SMC5-USB - Stepper & DC Motor Controller, Pin assignment see 8SMC5 manual)



Pin 1 (Input)

Motor Winding 1 (Terminal 1). Should be connected to terminal A of a suitable bipolar stepper motor driver card. The four motor windings are connected in parallel configuration (See the datasheet of the motor for the specifications applicable when operating the motor in parallel configuration). So the effective number of windings available at the connector is two.

Pin 2 (Input)

Motor Winding 1 (Terminal 2). Should be connected to terminal B of a suitable bipolar stepper motor driver card.

Pin 3 (Input)

Motor Winding 2 (Terminal 1). Should be connected to terminal C of a suitable bipolar stepper motor driver card.

Pin 4 (Input)

Motor Winding 2 (Terminal 2). Should be connected to terminal D of a suitable bipolar stepper motor driver card.

Pin 5 (Output)

Collector terminal of the output transistor of the top limit sensor (See the datasheet of the optical interrupter MOC7811). Should be connected to +5V through a pull up resistor (10K typical). A

5V output at this pin indicates that the labjack has reached its top limit. This output will be at 0V otherwise.

Pin 6 (Output)

Collector terminal of the output transistor of the bottom limit sensor (See the datasheet of the optical interrupter MOC7811). Should be connected to +5V through a pull up resistor (10K typical). A 5V output at this pin indicates that the labjack has reached its bottom limit. This output will be at 0V otherwise.

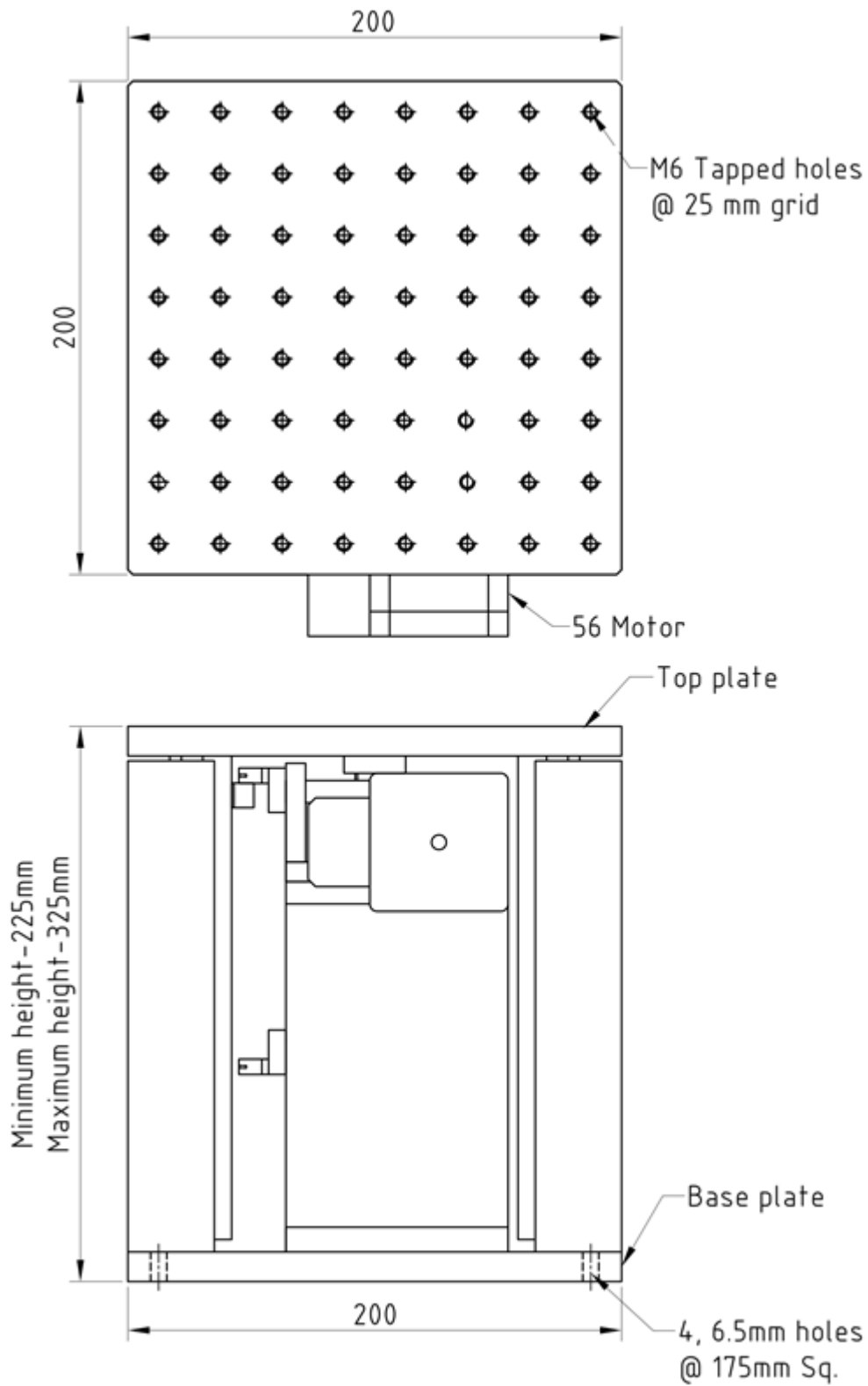
Pin 7 (Input)

Emitter terminals of the output transistors, and the cathode of the IR emitter diodes, of the top and bottom limit sensors. Should be connected to GND.

Pin 8 (Input)

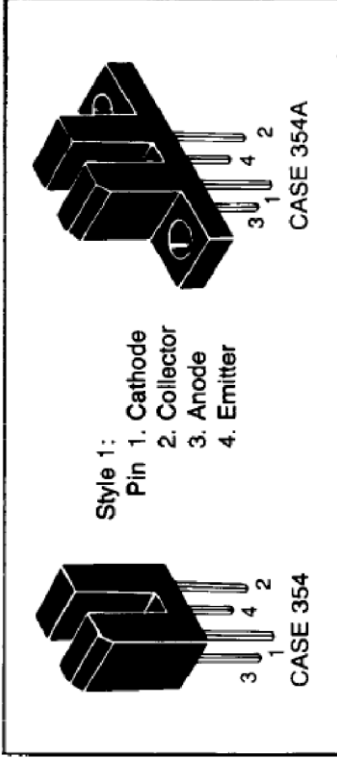
Anode of the IR emitter diode of the top and bottom limit sensors with built-in current limiting resistor (330E). Should be connected to +5V.

Drawing



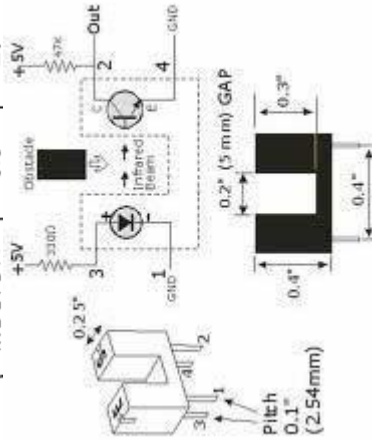
Slotted Couplers/Interrupter Modules

Slotted couplers consist of an infrared emitting diode facing a photodetector in a molded plastic housing. A slot in the housing between the emitter and the detector provides a means of interrupting the signal. A wide selection of standard and custom housings and detector functions is available. All IREs and photodetectors in the miniature Case 349 (see Silicon Photodetectors) can be used in these housings.



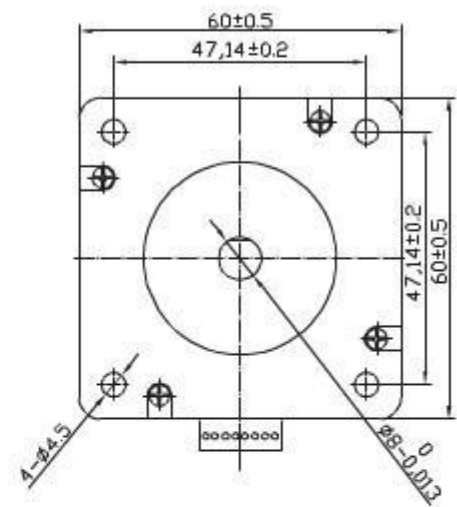
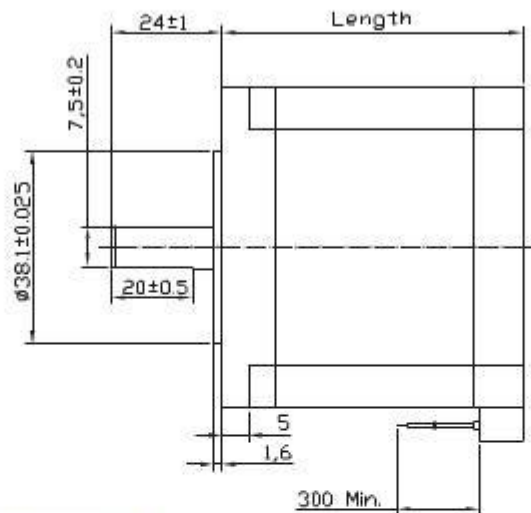
Transistor Output ($V_{(BR)CEO} = 30\text{ V}$)

Device	Current Transfer Ratio (CTR)			VCE(sat)			ton, toff Typ			VF		Case
	% @	IF mA	IC mA	Volts Max	@ IF mA	IC mA	VCC Volts	RL Ω	IF mA	Volts Max	@ IF mA	
MOC7811	5.0	20	1.8	0.4	30	1.8	5.0	2.5K	30	1.8	50	354A
							12/60					



60 SH

**HIGH TORQUE HYBRID
60MM 1,8°**



Dimensions in mm.

Characteristics

STEP ANGLE

1,8°

STEP ANGLE ACCURACY

± 5%

INSULATION CLASS

B

AMBIENT TEMPERATURE

-20°C +50°C

TEMP. RISE

80°C MAX (RATED CURRENT, 2 PHASE ON)

INSULATION RESISTANCE

100 M OHM MIN. 500 VDC

DIELECTRIC STRENGTH

500 VAC FOR ONE MINUTE

SHAFT RADIAL PLAY

0,02 MAX (450 G LOAD)

SHAFT AXIAL PLAY

0,08 MAX. (450 G LOAD)

MAX RADIAL FORCE

75 N (20 MM FROM FRONT FLANGE)

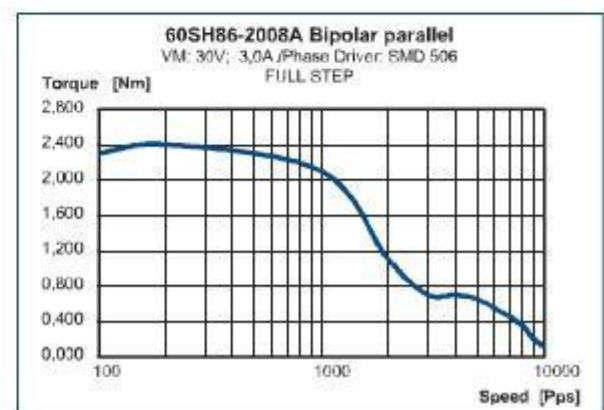
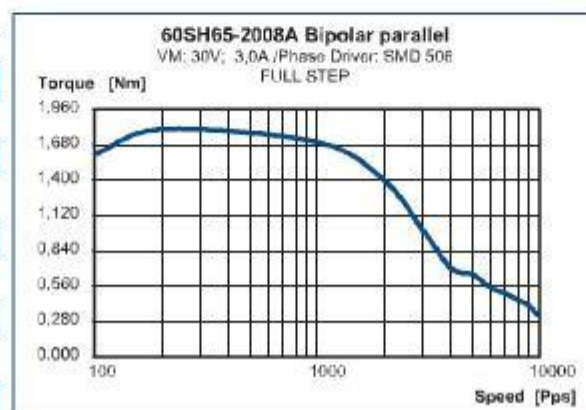
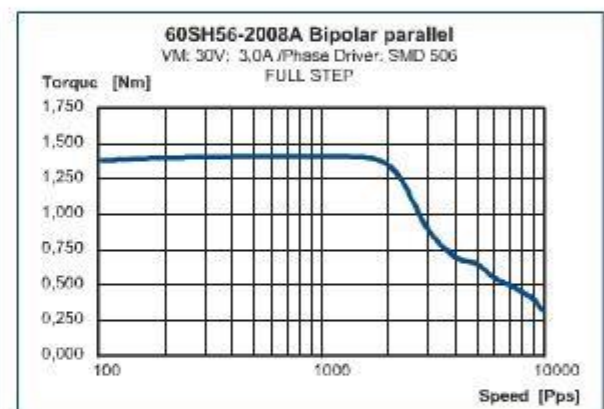
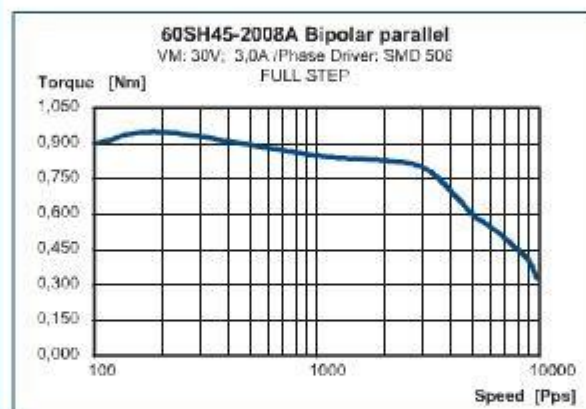
MAX AXIAL FORCE

15 N

Specifications

	MODEL	60SH45-2008AF			60SH56-2008AF			60SH65-2008AF			60SH86-2008AF			
		UNIPOLAR	PARALLEL	SERIES	UNIPOLAR	PARALLEL	SERIES	UNIPOLAR	PARALLEL	SERIES	UNIPOLAR	PARALLEL	SERIES	
1	RATED VOLTAGE	V	3	2,1	4,2	3,6	2,52	5,04	4,8	3,36	6,72	6	4,17	8,4
2	CURRENT/PHASE	A	2	2,8	1,4	2	2,8	1,4	2	2,8	1,4	2	2,8	1,4
3	RESISTANCE/PHASE	Ω	1,5	0,75	3	1,8	0,9	3,6	2,4	1,2	4,8	3	1,5	6
4	INDUCTANCE/PHASE	MH	2	2	8	3,6	3,6	14,4	4,6	4,6	18,4	6,8	6,8	27,2
5	HOLDING TORQUE	NM	0,78	1,1	1,1	1,17	1,65	1,65	1,5	2,1	2,1	2,2	3,1	3,1
6	ROTOR INERTIA	G-CM²	-	275	-	-	400	-	-	570	-	-	840	-
7	WEIGHT	KG	-	0,6	-	-	0,77	-	-	1,2	-	-	1,4	-
8	NUMBER OF LEADS	N°	-	8	-	-	8	-	-	8	-	-	8	-
9	LENGTH	MM	-	45	-	-	56	-	-	65	-	-	86	-

Speed vs. Torque Characteristics



Connection

LEAD N°	COLOR	GAUGE	FUNCTION
1	BLUE/WHITE	UL1007 AWG22	PHASE A
2	BLUE	UL1007 AWG22	PHASE A-
3	RED/WHITE	UL1007 AWG22	PHASE C-
4	RED	UL1007 AWG22	PHASE C
5	GREEN/WHITE	UL1007 AWG22	PHASE B
6	GREEN	UL1007 AWG22	PHASE B-
7	BLACK/WHITE	UL1007 AWG22	PHASE D-
8	BLACK	UL1007 AWG22	PHASE D