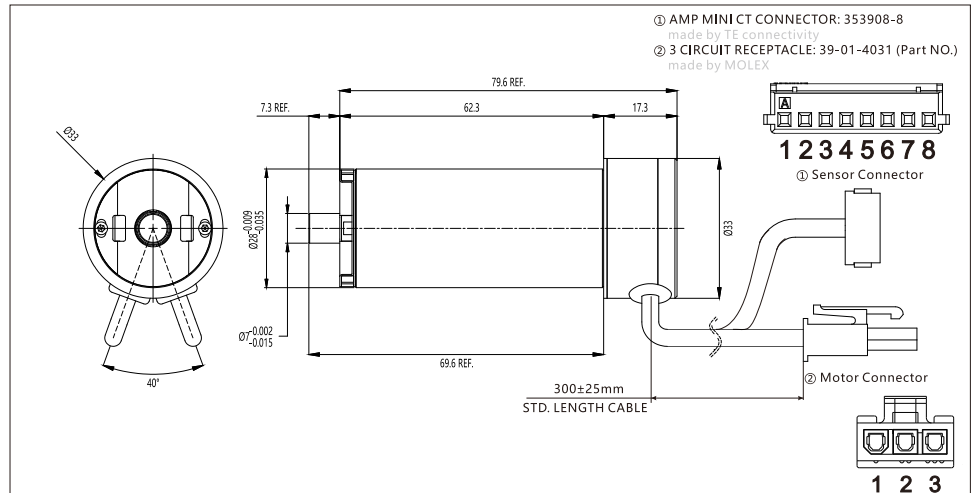


Galvanometer Optical Scanner

PM20K

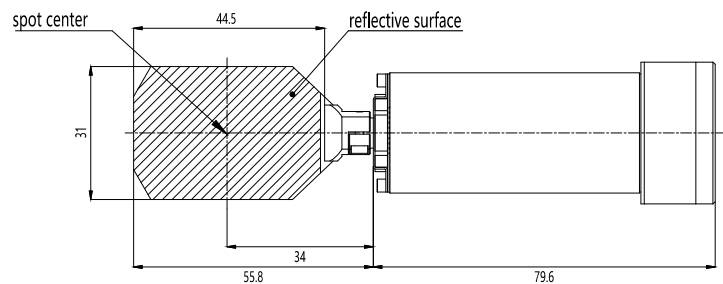
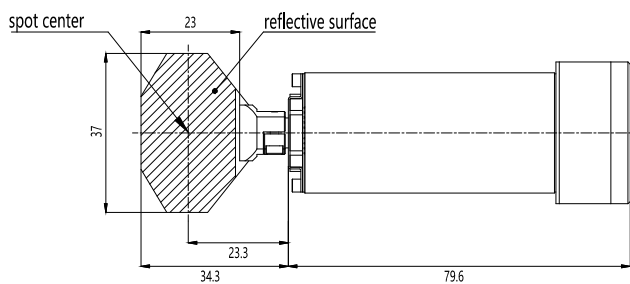
(Unit: mm)



Galvanometer scanner with the reflective mirror

X - Axis

Y - Axis



※ Galvo mirror with 20 mm spot diameter as shown in the drawing. (Mirror thickness: 3.0 mm)

Specifications

Items		Unit	PM20K
Maximum scan angle (Mechanical angle)		deg mech.	± 20
Rotor inertia		$g \cdot cm^2$ (± 10%)	2.4
Coil resistance		Ω (± 10%)	1.0
Coil inductance		μH (± 10%)	350
Torque constant		dyne· cm/amp (± 10%)	2.0×10^5
Back EMF voltage		$\mu V/deg/sec$ (± 10%)	340
RMS current (at 50°C,Maximum)		A	8.2
Peak current (Maximum)		A	25
Maximum coil temperature		°C	110
Thermal resistance (Rotor to case)		°C/watt	0.6
Weight		g	350
Repeatability		μrad	8
Non - linearity (Maximum)		%	0.1
Offset drift (Maximum)		$\mu rad/^\circ C$	15
Gain drift (Maximum)		ppm/ °C	50
Step response time		μsec	350
Output signal	Common mode	μA (± 25%)	155 (at AGC current of 25 mA)
	Differential mode	$\mu A/deg$ (± 5%)	12 (at common mode current of 155 μA)

※ The values of the specification are based on the combination of OUYA Precision Servo Driver and Mirror.

※ All angles shown are mechanical angles.

Galvanometer Optical Scanner

Connector pin definition

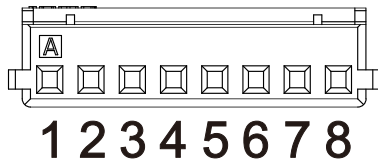
① Sensor connector	
Supplier	TE connectivity
Product Name	AMP MINI CT CNNECTOR
Part Number	353908-8

② Sensor connector	
Supplier	MOLEX
Product Name	3 CIRCUIT RECEPTACLE
Part Number	39-01-4031

Pin	Input/Output	Name: Function
1	Output	POS1: PD Output Signal 1
2	Output	POS2: PD Output Signal 2
3	GND	GND: PD Ground
4	GND	LED-: LED Ground
5	Input	LED+: AGC Input
6	GND	PE: PD Shield
7	Don't connect	N.C.: Not Uused
8	Don't connect	N.C.: Not Uused

Pin	Input/Output	Name: Function
1	Input	Motor-: Motor Driver -
2	Input	Motor+: Motor Driver +
3	GND	GND: Motor Driver Shield

Drawing



Drawing

