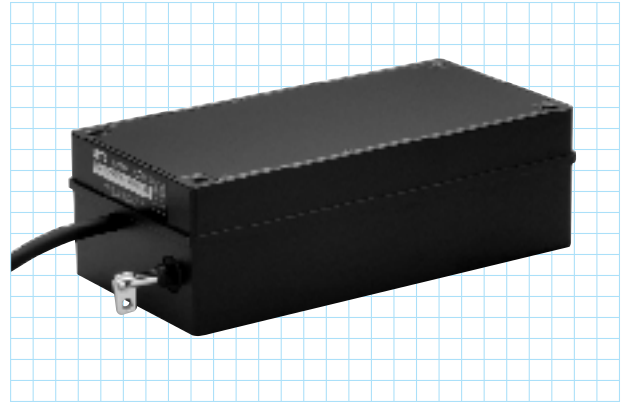
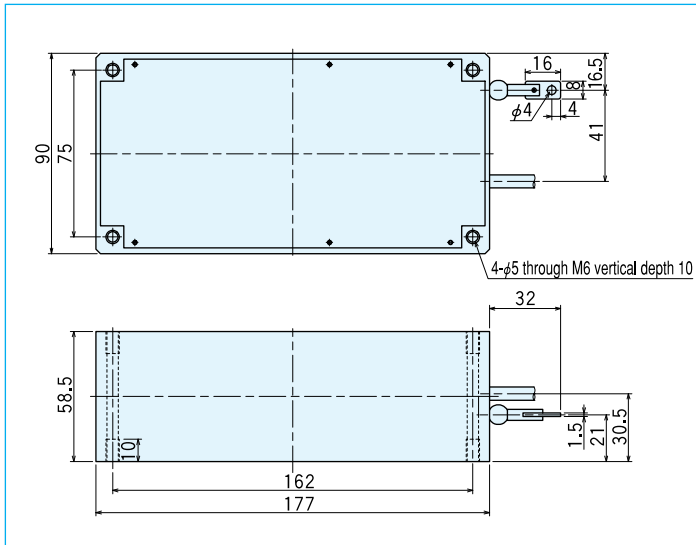


MLA-50 series

[Absolute Linear Scale]



Outside dimensions



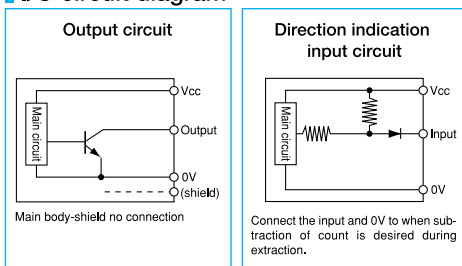
Specifications

Item	Type name	MLA-50-4096
Supply voltage		1:DC5V±10% 2:DC12V±10% 4:DC24V±10%
Current consumption		70mA or less (under no load), 100mA or less (under no load)
Output code		G:gray code N:pure binary code
Logic		Negative logic (H=0, L=1)
Output circuit		NPN open collector
Output capacity		Sink current 20mA or less Residual voltage 0.5V or less (at 10mA)
Maximum response frequency		10kHz
Working temperature		0°C~60°C
Storage temperature		-20°C~80°C
Vibration resistance		Durability 55Hz, double amplitude 1.5mm 2 hours each in X, Y, and Z directions
Impact resistance		Durability 500m/s ² (about 50G) 3 times each in X, Y, and Z directions
Cable		Outside dia. φ6.8 19-core vinyl wire Insulated shield cable (length: 1m)

Specifications/Absolute Linear Scale

Type name	MLA-50-4096-216	MLA-50-4096-200	MLA-50-4096-400	MLA-50-4096-1000	MLA-50-4096-2000	MLA-50-4096-4000
Measuring range mm	216	200	400	1,000	2,000	4,000
Output pulse/mm	4,096/216	20	10	4	2	1
Stroke speed mm/sec	500	500	1,000	1,000	1,000	1,000
Accuracy mm	±0.1/100mm					
Min. resolution mm	0.053	0.05	0.1	0.25	0.5	1
Wire dia. mm	0.6	0.9	0.9	0.9	0.9	0.8
Wire cutting load kg	7	70	70	70	70	60
Material of wire	SUS304					
Tensile strength of wire	3.9N~6.8N (400gf~700gf)					
Material of spring	Spring steel					
Origin adjustment	—	Free				
Material of pulley	SUS303 Auto-return structure					
Outside dimensions	MLS50	As per outside dimension diagram				

I/O circuit diagram



Connection MLA-50

Type/ code color	MLA-50-4096G MLA-50-4096N
Black	0V (COMMON)
Red	Power
Red/black	Rotating direction indication input
Brown	Output 2 ⁰
Brown/black	Output 2 ¹
Orange	Output 2 ²
Orange/black	Output 2 ³
Yellow	Output 2 ⁴
Yellow/black	Output 2 ⁵
Green	Output 2 ⁶
Green/black	Output 2 ⁷
Blue	Output 2 ⁸
Blue/black	Output 2 ⁹
Purple	Output 2 ¹⁰
Purple/black	Output 2 ¹¹
Gray	No connection
Gray/black	No connection