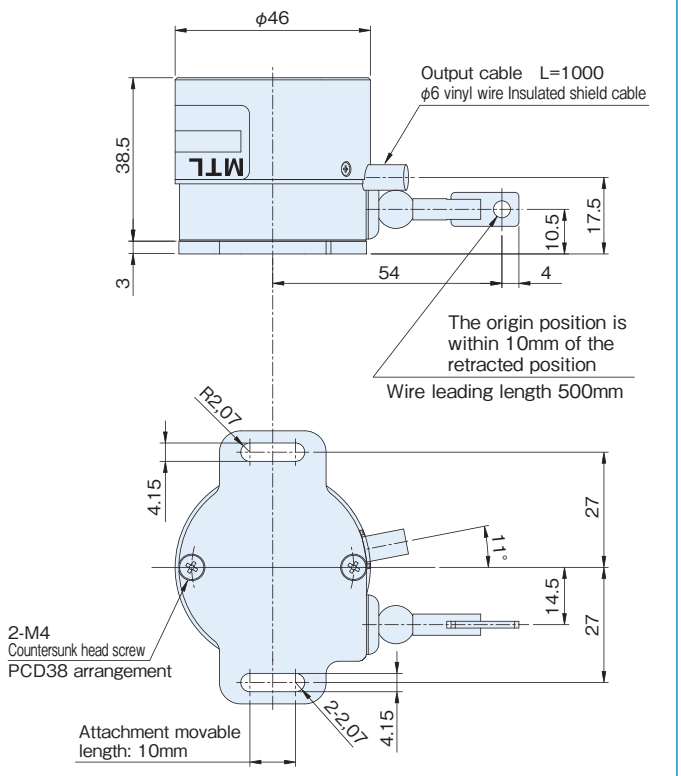
MLA-30 series

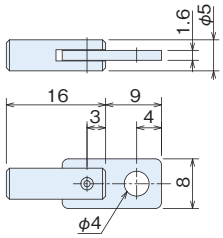
[Absolute Linear Scale]

- Outside dimensions: 46×41.5mm
- Length measurement resolution: 0.088mm, Measured distance 90mm (Maximum position 500mm)

Outside dimensions



Detail of hook portion



Note: Usage warning: The wire may stop midway through retracting.
When this happens, slowly pull out the full length and then slowly retract again before using.

Specifications

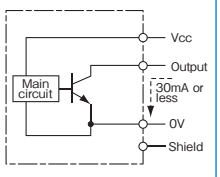
Item	Type name: MLA-30-□□□-90 (Pulse number — Output code: ●G=Gray code ●N=Pure binary code ●B=BCD code — Supply voltage(1, 5))
Supply voltage	1:DC5V±5% 5:DC12V−10%～24V+15%
Current consumption	100mA or less(under no load)
Output code	G:gray code N:pure binary code B:BCD code
Logic	Nagative logic(H=0, L=1)
Output circuit	NPN open collector output
Output capacity	Sink current 30mAmax, Residual voltage 0.5V(at 30mA)
Maximum response frequency	10kHz
Measuring range	90mm
Output pulse number/mm	1,024／90(G, N), 1,000／90(B)
Minimum resolution	G(N):0.088mm B:0.09mm
Stroke speed	1000mm/sec max
Wire tensile force	0.98N～2.94N(100gf～300gf)
Working ambient temperature/humidity	0℃～+50℃／RH35%～90%(no dewing)
Storage ambient temperature	−20°C～80°C
Vibration resistance	Durability 10～55Hz, double amplitude 1.5mm 2 hours each in X, Y, and Z directions
Impact resistance	50G 3 times each in X, Y, and Z directions
Cable	Outside dia. ϕ6 16-core vinyl wire Insulated shield cable(length:1m)
Mass	350g or less(excluding cable)

Connection

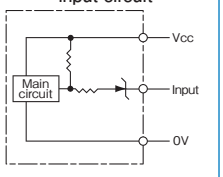
Code color	Output signal G	N	B	Code color	Output signal G	N	B
Brown	2^0			Blue	2^8		2^0×100
Brown／Black	2^1			Blue／Black	2^9		2^1×100
Orange	2^2			Purple	NC		2^2×100
Orange／Black	2^3			Purple／Black	NC		2^3×100
Yellow	2^4		2^0×10	Red／Black	−		*Rotating direction indication input
Yellow／Black	2^5		2^1×10	Red	Vcc		
Green	2^6		2^2×10	Black	COMMON		
Green／Black	2^7		2^3×10	Black	COMMON		

I/O circuit diagram

NPN open collector output



Rotating direction indication input circuit



Note) When input is open, CW increases count.
When input is 0V short, CCW increases count.

Output signal is an image form