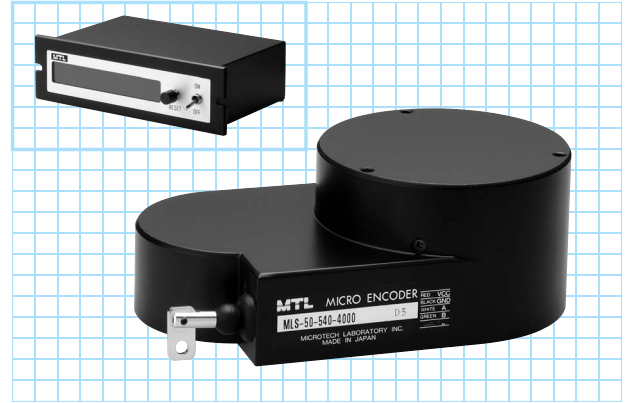
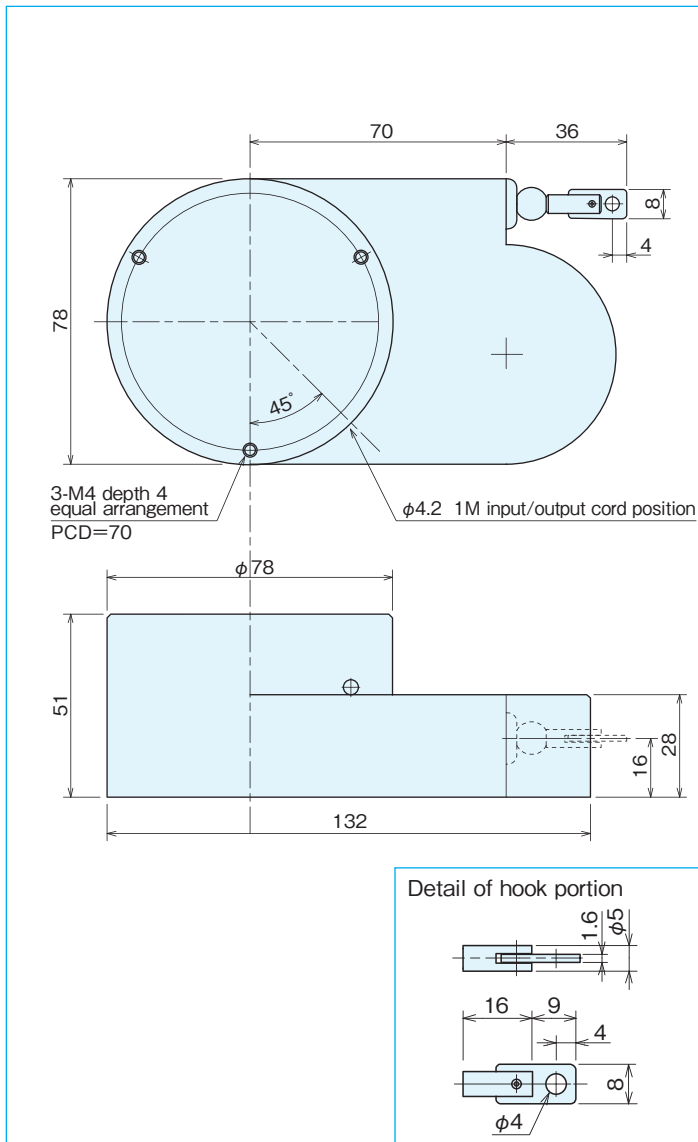


MLS-50 series

[Wire-Type Linear Scale]

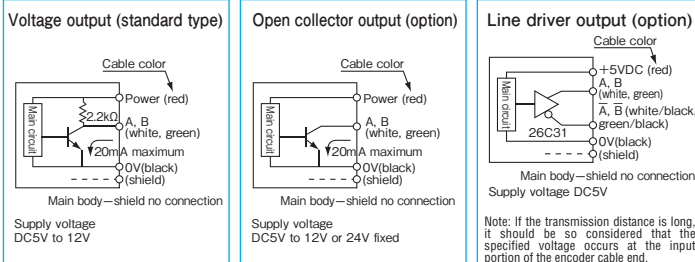


Outside dimensions



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.

Output circuit diagram



A capacitor (0.1 μ F) is connected between 0V and FG (frame ground).

Specifications/linear scale encoder (detection portion)

Item	Type name	
	MLS-50-540-2000	MLS-50-540-4000
Measuring range mm	2,000	4,000
Output pulse/1mm	2.5	2.5
Stroke speed mm/sec	1,000	1,000
Absolute accuracy mm	± 2	± 4
Minimum resolution mm	0.4	0.4
Supply voltage	DC5~12V $\pm 10\%$ DC24V $\pm 10\%$ (option)	
Current consumption	60mA or less (under no load)	
Output phase	A phase, B phase	
Output form	Square wave	
Output capacity	Sink current 20mA or less, residual voltage 0.5V or less (at 10mA)	
Response frequency	100kHz	
Output phase	A, B phase difference $90^\circ \pm 45^\circ$	
Waveform rise/fall time	2 μ sec or less	
Wire tensile force	3.9N~6.8N (400~700gf)	
Working ambient temperature/humidity	0 $^\circ$ C~50 $^\circ$ C / RH35%~90%	
Storage ambient temperature	-20~80 $^\circ$ C	
Vibration resistance	Endurance 10 to 55Hz Double amplitude 2 hours each in X, Y, and Z directions	
Impact resistance	50G	
Cable	Insulated shield wire Outside diameter $\phi 4.2$ 4-core vinyl wire	
Mass	850g	

Note: The output pulse or resolution is possible to 4 multiple with the counter.

Specifications/micro linear scale (detecting portion + indicating portion)

Type name	MLS-50-01-2000	MLS-50-01-4000
Measuring range mm	2,000	4,000
Output pulse/1mm	10	10
Counter accuracy pulse	± 1	± 1
Minimum reading	0.1	0.1
Power	AC100V 50/60Hz 180mA max	
Counter mode	10 Decimal	
Count indication	0~ ± 999999.9	
Reset	Reset switch provided *External signal resetting possible	
External output	*BCD parallel output	
Mass	1,350g	
Power cord	2m with plug	

Note: For counter specifications, see DC Series. * indicates option.

Output waveform

