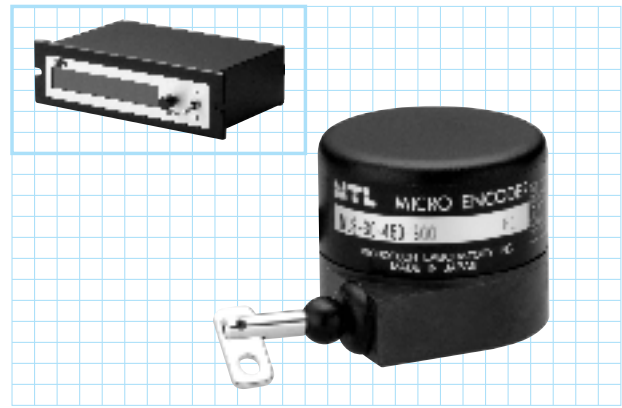
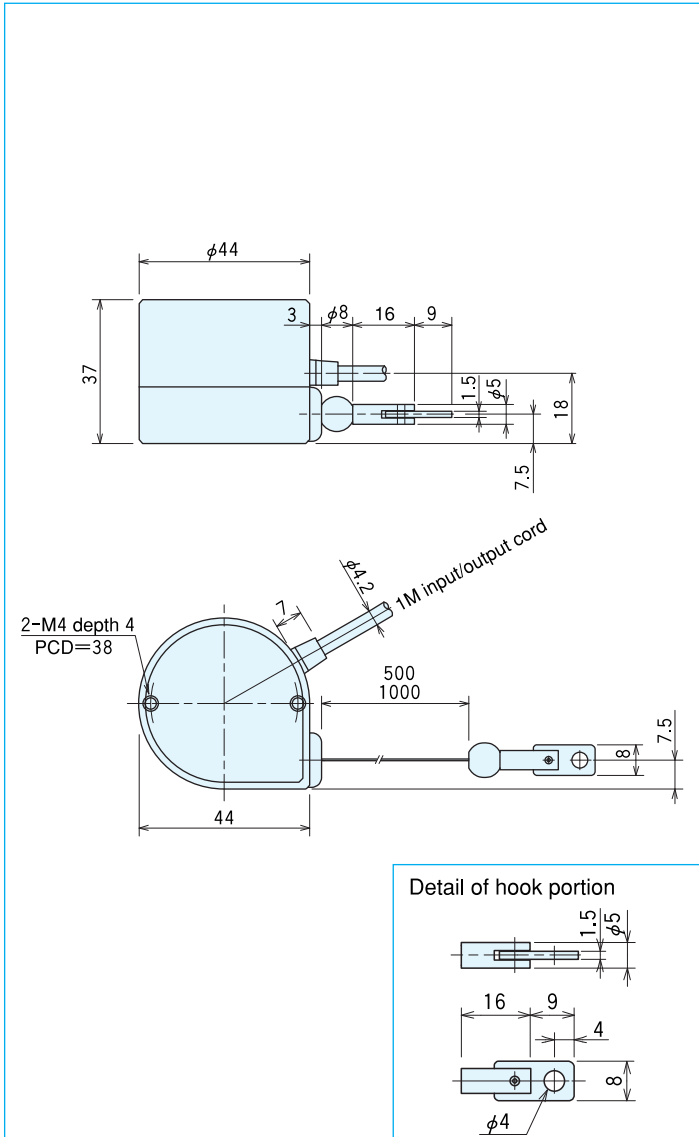


# MLS-30 series

[Wire-Type Linear Scale]

## Outside dimensions



## Specifications/linear scale encoder (detection portion)

Type name	MLS-30-450-500	MLS-30-450-1000	MLS-30-4500-500	MLS-30-4500-1000
Measuring range mm	500	1,000	500	1,000
Output pulse/1mm	5	5	50	50
Stroke speed mm/sec	1,000	1,000	1,000	1,000
Absolute accuracy mm	±0.05/100mm			
Minimum resolution mm	0.2	0.2	0.02	0.02
Supply voltage	DC5~12V±10% DC24V±10%(option)		DC5~12V±10% DC24V±10%	
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	50kHz			
Output phase	A, B phase difference 90°±45°			
Waveform rise/fall time	2μsec or less			
Wire tensile force	1.4N~2.9N (150~300gf)			
Working ambient temperature/humidity	0°C~50°C/RH35%~90%			
Storage ambient temperature	-20~80°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 φ4.2 4-core vinyl wire			
Mass	185g			

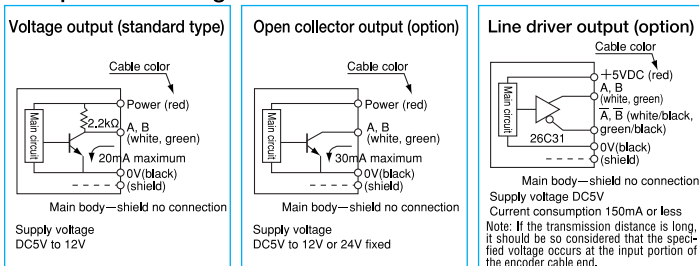
Note: The output pulse or resolution is possible to 4 multiple with the counter.

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

Type name	MLS-30-01-500	MLS-30-01-1000	MLS-30-001-500	MLS-30-001-1000
Measuring range mm	500	1,000	500	1,000
Output pulse/1mm	10	10	100	100
Counter accuracy pulse	±1	±1	±1	±1
Minimum reading	0.1	0.1	0.01	0.01
Power	AC100V 50/60Hz 180mA max			
Counter mode	10 Decimal			
Count indication	0~±999999.9		0~±99999.99	
Reset	Reset switch provided *External signal resetting possible			
External output	*BCD parallel output			
Mass	700g			
Power cord	2m with plug			

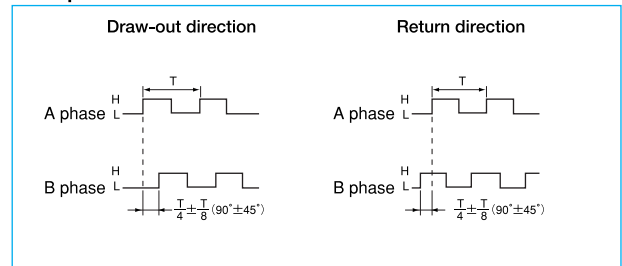
Note: For counter specifications, see DC Series. \* indicates option.

## Output circuit diagram



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

## Output waveform



Description  
 SE series  
 ME series  
 MGH series  
 MA series  
 MXS series  
 MLS series  
 MLA series  
 REH series  
 MT series  
 DC series  
 Setting Option/  
 Coupling  
 INDEX