

# HLS-DA

## DISPLACEMENT SENSOR LINEAR WIRE ENCODER



- Miniature and Compact Design
- Easy and Fast Mounting
- Measuring Range 450 mm
- Up to Resolution 0.05 mm

### ELECTRICAL SPEC.

Detection System	Incremental 增量型
Output Wave 輸出波形	Square Wave 方波
Stroke (mm) 量測行程	450
Standard Resolution (mm/pulse) 解析	5, 1, 0.5, 0.2, 0.1, 0.05 mm/pulse
Repeatability Error 重複性誤差	$\pm 0.025\%$ FS, $\pm 1$ count
Output Phase 輸出相	AB phase
Electronics 電路特性	NPN Voltage 電壓型, NPN Open Collector 電流型
Power Supply 供應電源	DC 5~12V or DC 10~26V for NPN Voltage, DC 5~26V for NPN Open Collector
Current Consumption 消耗電流	$\leq 50$ mA
Output Capacity 輸出容量	Sync. Current: 20 mA, Residual Voltage: 0.5V or less
Max. Response 最大響應頻率	Max. 100K Hz
Phase Different 相位差	A, B phase different $90^\circ \pm 45^\circ$ (T/4 $\pm$ T/8)
Wave Form Rise / Fall 波形上下時間	2 $\mu$ s or less
Polarity 極性保護	Against Reverse Protection

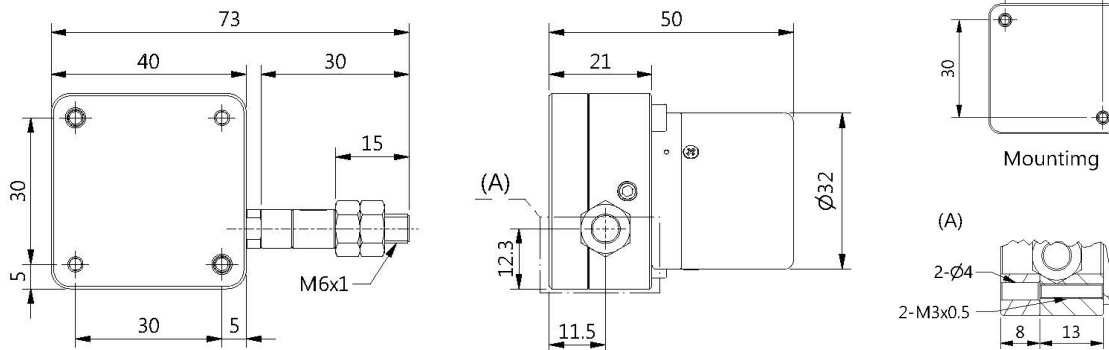
### MECHANICAL SPEC.

Wire Specification 線徑規格	Material: SUS304 with nylon coating Diameter: 0.61 mm; Breaking load: 16 Kg
Max. Travel Speed 最大往復速度	1000 mm / sec.
Vibration 震動	10-55 Hz / 1.5 mm Vpp / 10 G (max.)
Shock 衝擊	20g per 11 ms
Cable 電線	$\varnothing 4.5$ , 50 cm long
Weight 重量	< 150g
Starting Torque on Spring 拉力	Max. 650 g

### ENVIRONMENTAL SPEC.

Operating Temp. / Humidity 操作溫度/濕度	-10°C ~ 60°C, RH 35% ~ 90% (No Condensation)
Storage Temp. 儲存溫度	-20°C ~ 70°C
Protection 保護等級	IP50: Dust Proof (only for encoder housing)
Wire Life 壽命	Typical > 1 X 10 <sup>6</sup> cycles

### DIMENSION



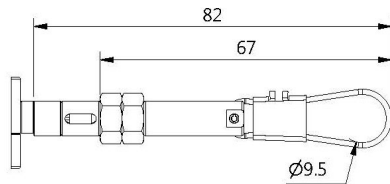
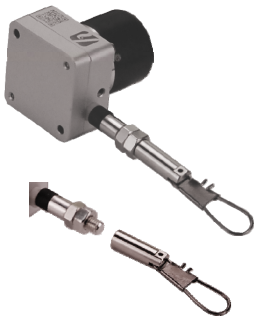
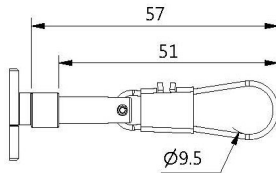
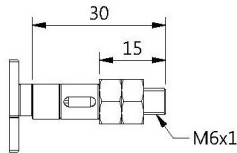
# HLS-DA

## DISPLACEMENT SENSOR LINEAR WIRE ENCODER



- Miniature and Compact Design
- Easy and Fast Mounting
- Measuring Range 500 mm
- Up to Resolution 0.05 mm

### OPTIONS



### ORDERING INFORMATION

HLS-DA-045 -

Resolution 解析	Electronics 電路特性
5: 5 mm	LV: NPN Voltage 5~12V
1: 1 mm	HV: NPN Voltage 10~26V
05: 0.5 mm	C: NPN Open Collector 5~26V
02: 0.2 mm	
01: 0.1 mm	
005: 0.05 mm	

HLS-DBA-045 -

Resolution 解析	Electronics 電路特性
5: 5 mm	LV: NPN Voltage 5~12V
1: 1 mm	HV: NPN Voltage 10~26V
05: 0.5 mm	C: NPN Open Collector 5~26V
02: 0.2 mm	
01: 0.1 mm	
005: 0.05 mm	

HLS-DBB-045 -

Resolution 解析	Electronics 電路特性
5: 5 mm	LV: NPN Voltage 5~12V
1: 1 mm	HV: NPN Voltage 10~26V
05: 0.5 mm	C: NPN Open Collector 5~26V
02: 0.2 mm	
01: 0.1 mm	
005: 0.05 mm	