

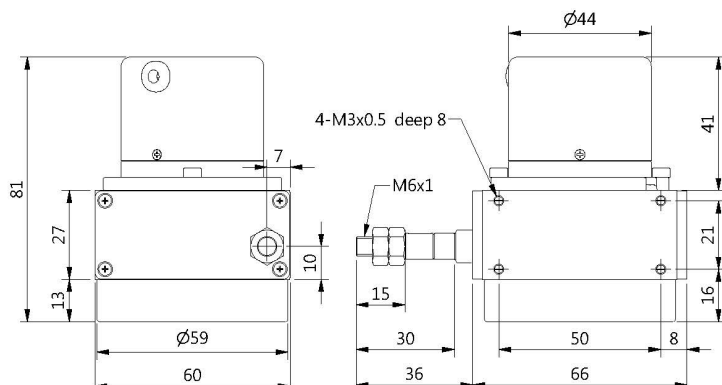
HPS-S-D

DISPLACEMENT SENSOR LINEAR WIRE POTENTIOMETER RS 485



- Stroke 行程: 500/1000 mm
- Interface: RS485 MODBUS RTU Output

DIMENSION



ORDERING INFORMATION

HPS-S-	Measuring Range 量測行程	Signal Mode 信號模式	Pot. Life & Linearity 壽命	Signal Sequence 信號輸出序列
	05: 500 mm 10: 1000 mm	D: RS-485	*F: 5 X 10 ⁶ cycles, (Std.) 1 X 10 ⁶ cycles * OPTION	*W: Reversed (Std.) 0~4096 * OPTION

ELECTRICAL SPEC.

Full Stroke (mm) 量測行程	500,1000		
Sensor	Wire-wound and hybrid potentiometer		
Linearity 線性度	±0.3% FS (± 1 count)		
Resolution 解析	< 0.025%(mcu AD 解析) / 12 bit (4096)		
Output Type 輸出型式	RS-485 MODBUS		
Power Supply 使用電壓	DC12-24 V ± 20%		
Output Voltage 輸出電壓	RL	VH	VL
	50Ω	> 2.0V	< 0.2V
	27Ω	> 1.5V	< 0.2V
Current Consumption 消耗電流	≤ 40 mA		
Output Load Resistor 輸出負載阻抗	≤ 50 Ω		
Response Time 輸出反應速度	< 30 ms		
Polarity Reverse Protection 極性保護	Input voltage polarity reverse protection 電源極性反接電路可工作		
Dielectric Resistance 絕緣電阻(M Ω min.)	±0.08% FS		
Dielectric Strength 絕緣電壓(Vrms)	20 mA max.		
Output Short Protection 短路保護	< 50 mA		

MECHANICAL SPEC.

Wire Specification 線徑規格	Material: SUS304 with nylon coating; Diameter: 0.6 mm; Breaking load: 16 Kg		
Wire Life 鋼索壽命	Typical > 1X10 ⁶ cycles		
Max. Travel Speed 最大往復速度	500 mm / sec.		
Vibration 震動	10-55 Hz / 1.5 mm Vpp / 10 G (max.)		
Starting Torque on Spring 拉力	< 600 g		
Cable 電線	Ø4.5, 100 cm long		
Weight 重量	< 450 g		

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity 操作溫度/濕度	-10°C ~ 60°C, RH35% ~ 90%(No Condensation)		
Storage Temp. 儲存溫度	-20°C ~ 80°C		
Protection 保護等級	IP50: Dust Proof (only for potentiometer housing)		

HPS-S-D

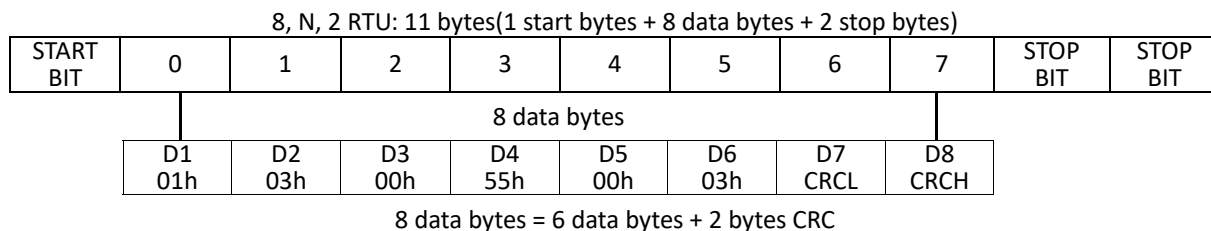
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RS485 MODBUS RTU Communication Protocol

Baud Rate 傳輸速度	19200 (Programming 可修改)
Data Bit 資料位元	8 (Fix 固定)
Parity Check 極性檢查	N (Fix 固定)
Stop Bit 停止位元	2 (Fix 固定)
Device Address 產品位址	00 (Programming 可修改)



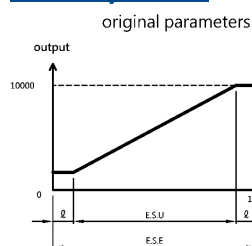
6 data bits (Readout Data): **01** **03** **0000** **0000**

D1	D2	D3 / D4	D5 / D6
01	03	0000	0001
Device Address	Readout Code	Readout Data Address	Readout Data Value(16h)
		0000	0~4095

6 data bits (Write Data): **01** **06** **0000** **0000**

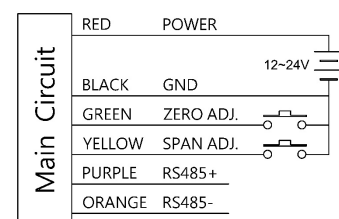
D1	D2	D3 / D4	D5 / D6
01	06	0000	0000
Device Address	Write Code	Write Data Address	Write Data Value(16h)
		0000	Write Address
		0001	Write Baud Rate
			0000~00FF(256)
			0001: 9600
			0002: 19200
			0003: 38400
			0004: 57600

Factory Fault



E.S.E. 有效電子行程 (mm)	500	1000
E.S.U. 使用電子行程 (mm)	5~495	5~995
Nonlinear Error 非線性誤差	±0.30%FS	
Repeatability Error 重覆性誤差	±0.08%FS	

Electrical Connection



Programming of the start and end

- Pulling stainless wire according to the demand at the start position, connect signal ZERO (Green Wire) to GND (Black Wire) for a short circuit.
- Pulling stainless wire according to demand at the end position, connect signal SPAN (Yellow Wire) to GND (Black Wire) for a short circuit.
- 將鋼索拉至預計開始的行程，連接 ZERO (綠線) 和 GND (黑線) 短路至少 1 秒。
- 將鋼索拉至預計結束的行程，連接 SPAN (黃線) 和 GND (黑線) 短路至少 1 秒。