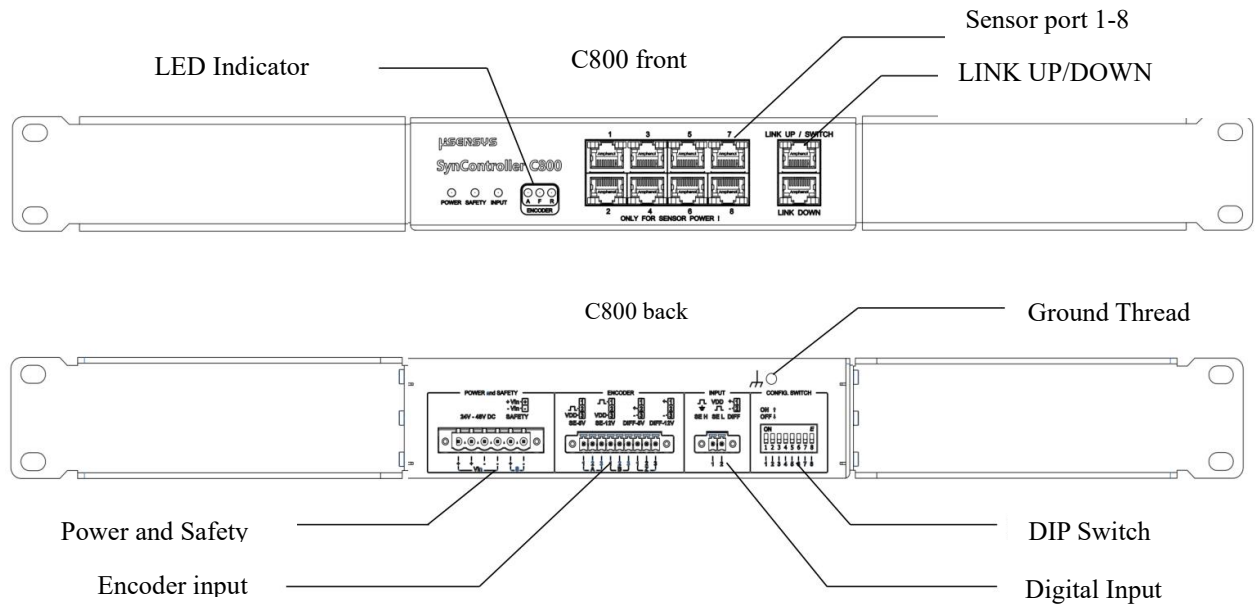


## Synchronous controller C800

When deploying a multi-sensor system, multiple sensors and synchronization controllers are required to form a multi-sensor network. The synchronization controller is used to power the sensors and broadcast synchronization information to all sensors in the network. The C800 model synchronous controller supports the connection of up to eight sensors. Multiple synchronous controllers can also be connected through their LINK UP and LINK DOWN ports to form a daisy chain structure, thereby supporting the integration of more sensors into the network.



project	describe
Sensor port	Connecting Sensors
LINK UP/DOWN	Synchronous controller access switch, connected with the switch
Ground Thread	Ground connection point
Power and Safety	Power and safety connections
Encoder input	Connect encoder signal
LED Indicator	Power supply, safety, input, encoder status
DIP Switch	Supports faster encoders

■ Interface definition

project	Pin	function	Remarks
Power and Safety	1	Power In+	
	2	Power In+	
	3	Power In-	
	4	Power In-	
	5	SAFETY+	Require connection of 24-48VDC differential voltage
	6	SAFETY-	
Digital input	1	Input_Pin1	Please refer to the introduction of "Digital Input Signal" later for the wiring method
	2	Input_Pin2	
Encoder input	1	Encoder_A_Pin1	Please refer to the introduction of "Encoder Signal" later for the wiring method
	2	Encoder_A_Pin2	
	3	Encoder_A_Pin3	
	4	Encoder_B_Pin1	
	5	Encoder_B_Pin2	
	6	Encoder_B_Pin3	
	7	Encoder_Z_Pin1	
	8	Encoder_Z_Pin2	
	9	Encoder_Z_Pin3	
DIP Switch	1	Set the frequency divider for encoder orthogonal frequency.  Output orthogonal frequency=Input orthogonal frequency/Divider	A frequency divider must be set to output orthogonal frequencies;  Not exceeding 300kHz
	2		
	3		

LVM-C800

	4	Reserved	
	5		
	6		
	7		
	8		
Sensor Port	Connecting to sensors		No specific order required
LED Indicator	Indicates the status of power supply, safety, input, and encoder		
LINK UP	① Used to connect with a synchronous controller, forming a daisy chain. ② Used for accessing Ethernet.		Use a universal network cable, 100Mbps
LINK DOWN	Used to connect to the next synchronization controller, forming a daisy chain.		Use a universal network cable

■ Electrical characteristics

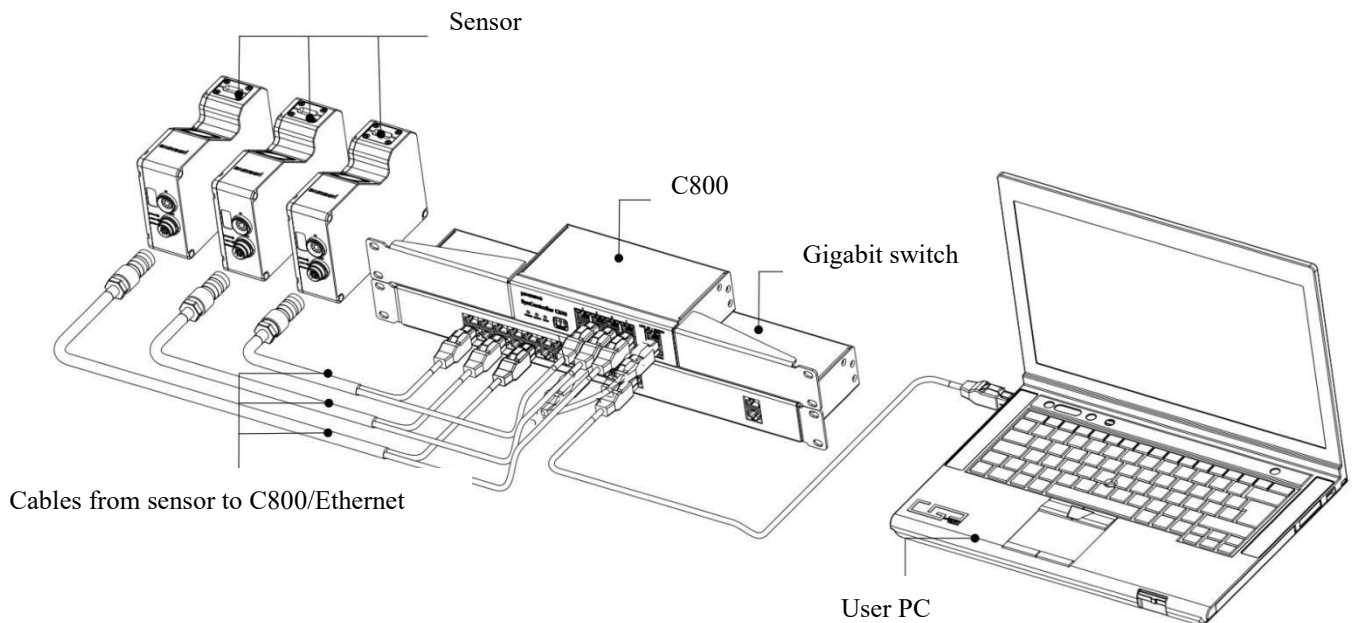
specifications	value
Supply voltage	+24VDC to +48VDC
Power supply current (maximum)	8.5A (Each sensor port is fully loaded with 1A)
Power consumption (minimum)	2.7W (excluding power consumption of sensors)
Safe input voltage range	+24VDC to +48VDC
Encoder signal voltage	Single ended (5VDC、12VDC) Differential (5VDC、12VDC)
Digital input voltage range	Single ended effective low level: 0 to +0.8 VDC Single ended effective high level:+3.3 to +24 VDC Voltage differential low level: 0.8 to -24 VDC

## LVM-C800

Voltage differential high level: +3.3 to +24 VDC

(When the input voltage is above 24V, an external series resistor needs to be used)

For some complex application requirements, multiple sensors usually need to work together to complete measurement tasks. One sensor serves as the main sensor for implementing global control and outputting the final results, while the other sensors serve as auxiliary sensors to collect local data. Each sensor is connected to the synchronization controller through a dedicated cable for the synchronization controller, which achieves precise synchronization of scanning timing between each sensor. Sensors, synchronization controllers, and client computers communicate through Ethernet switch (recommended Gigabit Ethernet switch).



## LVM-C800

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