

TECHNICAL DATA SHEET

Contact-Type Displacement Sensor DK-GFJ series



Figure can vary

Contents

- Product Features
- Application Scenario
- Model Selection
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- Circuit wiring diagram



Performance characteristics

- Working temperature: $-10\sim 40^{\circ}\text{C}$
- Humidity: $\leq 80\% \text{RH}$
- Absolute measurement (using grating absolute encoding)
- Waterproof: IP65
- Port output description: Rs485



DK-GFJ series

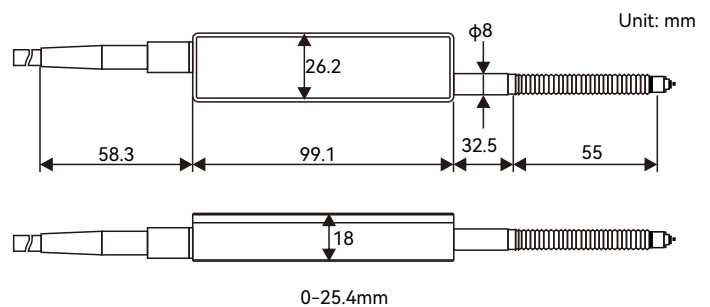
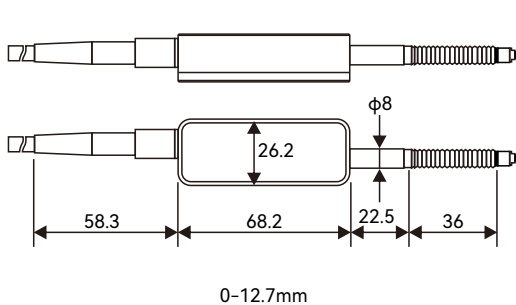
Technical Parameters

Model	DK-GFJ-HA	DK-GFJ-KA	DK-GFJ-WA	DK-GFJ-GWA	DK-GFJ-HB	DK-GFJ-KB	DK-GFJ-WB	DK-GFJ-GWB
Measuring range	0-12.7 mm				0-25.4 mm			
Detection system	Absolute encoding, absolute type (no tracking error)							
Resolution	5 μm	1 μm	0.5 μm	0.2 μm	5 μm	1 μm	0.5 μm	0.2 μm
Accuracy	$\leq 10\mu\text{m}$	$\pm 2\mu\text{m}(\leq 4\mu\text{m})$	$\leq 2\mu\text{m}$	$\leq 1.4\mu\text{m}$	$\leq 10\mu\text{m}$	$\pm 3\mu\text{m}(\leq 6\mu\text{m})$	$\leq 3\mu\text{m}$	$\leq 1.8\mu\text{m}$
Response time	50ms							
Working current	< 50mA							
Voltage	The controller uses a voltage of DC12-24V and supplies a voltage of DC5V to the displacement probe							
Signal output	RS485 level signal							
Communication	Modbus RTU protocol							
Force	Measurement force 1.1-1.2N				Measurement force 1.6-1.8N			
Protection level	IP65							
Temperature	-10 to $+50^{\circ}\text{C}$ (no freezing)							
Humidity	35 to 85% (non-condensing)							
Material	Aluminum alloy; Dust cover: Fluororubber; Probe: Carbide							
Weight	About 71.7g				About 91.5g			

Model Description

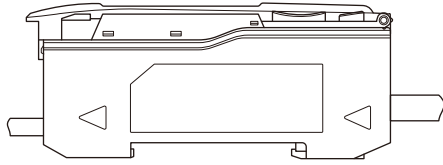
H: Percentage, K: thousand, W: ten thousand, GW: high-precision ten thousand, A: Measurement range 12.7mm, B: Measurement range 25.4mm

Product size/adaptation

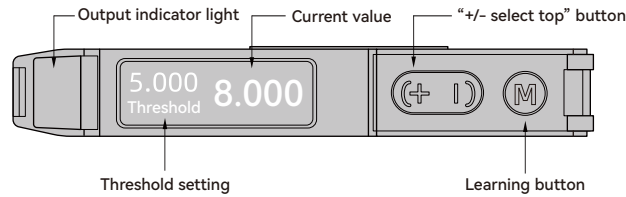


Controller Model: DK-GFJ-01

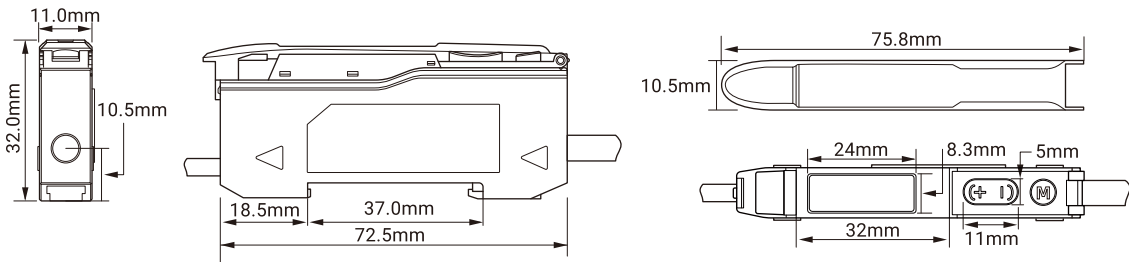
Controller output description: IO output / 485 output



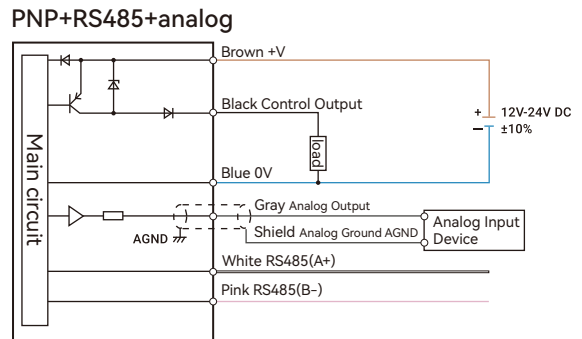
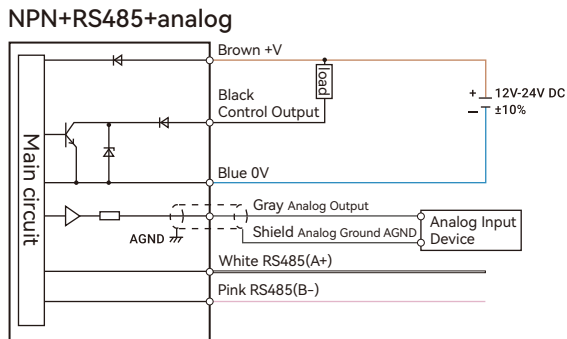
DK-GFJ-01 controller panel



DK-GFJ-01 controller size



DK-GFJ-01 controller wiring diagram



Communication protocol

1. Data frame format: RTU, mode communication parameters: baud rate 38400

Data frame: 1 start bit, 8 data bits, no parity check, 2 stop bits

2. The following is the displacement sensor data for reading:

Host query command 01 03 00 00 00 02 C4 0B		Displacement sensor response 01 03 04 01 00 12 39 37 7DH			
Address code	01H	Address code	01H		
Function code	03H	Function code	03H		
Access register First address	00H	Data byte length	04H		
	00H	Data word 1 high 8 bits	01H	Displacement Sensor Data	
Data word length	00H	Data word 1 low 8 bits	00H		Flag bit
	02H	Data word 2 high 8 bits	12H		
CRC (lower 8 bits)	C4H	Data word 2 low 8 bits	39H		Measurement data (hexadecimal)
CRC (higher 8 bits)	0BH	CRC (low 8 bits)	37H		
		CRC (high 8 bits)	7DH		

Port Output Description



		Airline Seat (RS232)	Airline Seat (Rs485)
Pin number	Color	Function	Function
1	Brown	DC 5V (power)	DC 5-24V (power supply)
2	Blue	RXD (data IN)	B
3	Yellow	TXD	A
4	Black	GND (ground)	GND (ground)