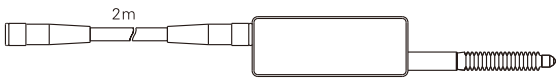
Contact Displacement Sensor

MRC-H Series

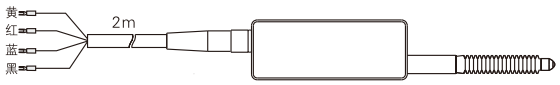
Appearance									
Type	Cassette type								
Detection principle	CMOS grating measurement (no tracking error)								
Display mode	Non–Digital display type								
Drive mode	Rebound type								
Range	0~12.7mm				0~25.4mm				
Full range accuracy	⩽1.4μm	⩽2μm	±2μm	⩽10μm	⩽1.8μm	⩽3μm	±3μm	⩽10μm	
Resolution powver	0.2μm	0.5μm	1μm	5μm	0.2μm	0.5μm	1μm	5μm	
Operating force	1.1–1.2N				1.6–1.8N				
response time	50ms								
Working current	＜50mA								
Operating woltage	5V DC								
Operating temperature	–10~ 50C (no freezing)								
Stoage temperature	–20 ~ + 70C (no freezin								
Relative humidity	35 ~ 80% RH(non–condensation)								
Degree of protection	IP65								
Communication protocol	Modbus RTU								
Material	Main body: aluminum alloy;Dust cover: fluorine rubber; sensor head: carbide								
Weight	about 71.7g				about 91.5g				
Model Aviation plug type*1	MRC-H12R04S	MRC-H12R02S	MRC-H12R12S	MRC-H12R10S	MRC-H25R08S	MRC-H25R03S	MRC-H25R13S	MRC-H25R10S	
Model Lead Type*2	MRC-H12R04W	MRC-H12R02W	MRC-H12R12W	MRC-H12R10W	MRC-H25R08W	MRC-H25R03W	MRC-H25R13W	MRC-H25R10W	

*1: Standard CA08FF–S4F2C M8 double female connection cable, which needs to be used with a digital display control module;
One sensor head needs to be equipped with one CA08FF–S4F2C, and one digital display control module can be connected to 4 sensor heads;
*2: Standard M8 four–core cable is not used with the digital display control module. If it needs to be used with the digital display control module, please choose the aviation plug type.

Dimensions



(0–12.7mm) Aviation plug type



(0–12.7mm) Lead Type

(0–25.4mm) Aviation plug type

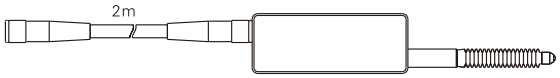
(0–25.4mm) Lead Type

MRC-H Series

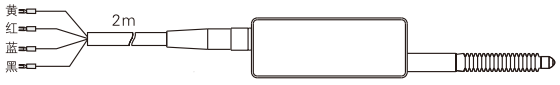
Appearance									
Type		Cassette type							
Detection principle		CMOS grating measurement (no tracking error)							
Display mode		Digital display type				Non–Digital display type			
Drive mode		Rebound type				Pneumatic type			
Range		0~12.7mm				0~12.7mm			
Full range accuracy		≤1.4μm	≤2μm	±2μm	≤10μm	≤1.4μm	≤2μm	±2μm	≤10μm
Resolution powver		0.2μm	0.5μm	1μm	5μm	0.2μm	0.5μm	1μm	5μm
Operating force		1.1–1.2N				2.4–3.4N			
response time		50ms							
Working current		<50mA							
Operating woltage		5V DC							
Operating temperature		–10~ 50C (no freezing)							
Stoage temperature		- 20~+70℃ (no freezing)							
Relative humidity		35~80% RH (non–condensation)							
Degree of protection		IP65							
Communication protocol		Modbus RTU							
Material		Main body: aluminum alloy;Dust cover: fluorine rubber; sensor head: carbide							
Weight		about 90.5g				about 99.2g			
Model	Aviation plug type*1	MRC-H12R04DS	MRC-H12R02DS	MRC-H12R12DS	MRC-H12R10DS	MRC-H12Q04S	MRC-H12Q02S	MRC-H12Q12S	MRC-H12Q10S
	Lead Type*2	MRC-H12R04DW	MRC-H12R02DW	MRC-H12R12DW	MRC-H12R10DW	MRC-H12Q04W	MRC-H12Q02W	MRC-H12Q12W	MRC-H12Q10W

*1: Standard CA08FF–S4F2C M8 double female connection cable, which needs to be used with a digital display control module;
One sensor head needs to be equipped with one CA08FF–S4F2C, and one digital display control module can be connected to 4 sensor heads;
*2: Standard M8 four–core cable.

Dimensions



(0–12.7mm) Aviation plug type

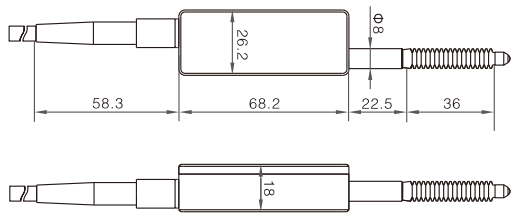


(0–12.7mm) Lead Type

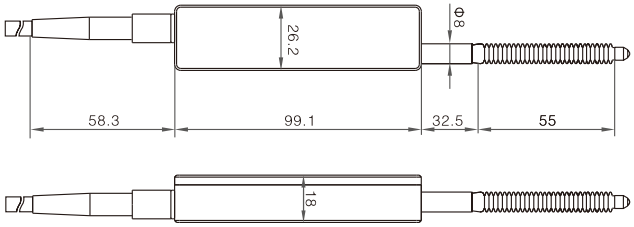
Dimensions

Unit: mm

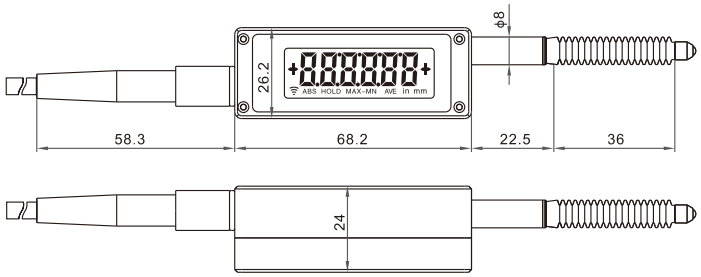
MRC-H12R



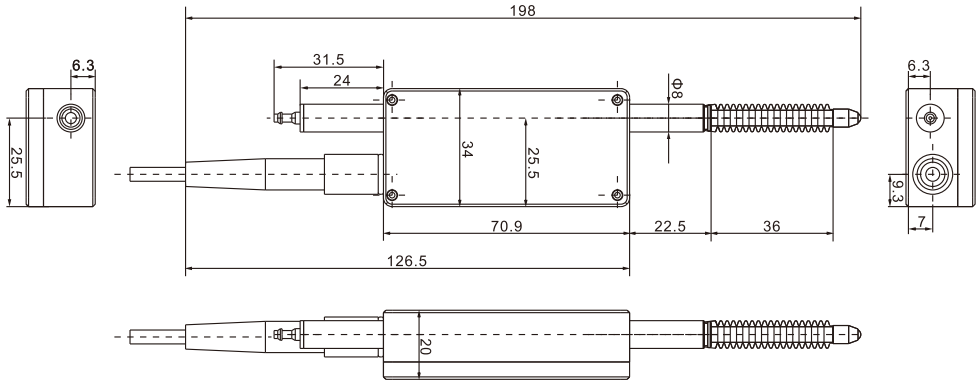
MRC-H25R



MRC-H12RD



MRC-H12Q



Circuit diagram

Port output description:

Aviation plug type	
Pin No.	Description
1	DC 5V(Power)
2	RXD
3	TXD
4	GND

RS232 Lead type	
Pin No.	Description
Blue	RXD
Black	TXD
Yellow	DC 5V(Power)
Red	GND

MRC-H controllers and accessories

NEW!

CE

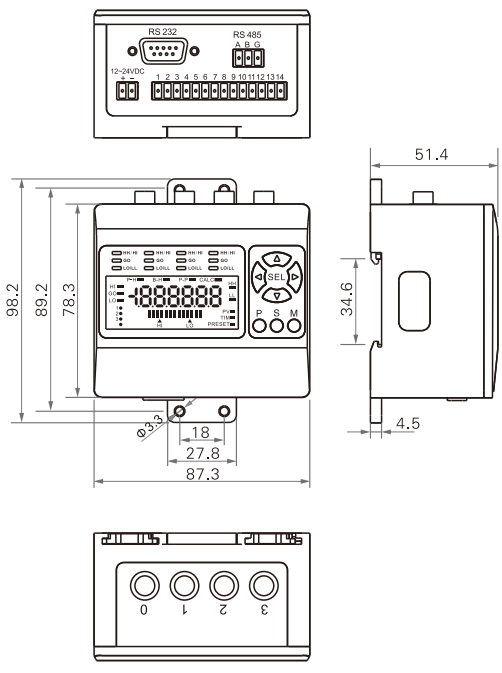
Appearance			
Installation		35mm Track installation	35mm Track installation
Communication interface		RS232/RS485	–
Communication protocol		Modbus RTU	–
Number of Eotersions*		1 main control module, up to 4 sub–control modules can be expanded	–
Number of connectalblle sensors		4	
Supply voltage		12~24V DC	
Display range		–199.9999~199.9999	
Display resolution		5 μ m/1 μ m/0.5 μ m/0.2 μ m（Displayed according to sensor head type）	
Power consumption		≤240mW（Sensor not connected, branch control module not connected）	≤100mW（no connect sensor）
Response time		50/100/500/1000ms（Change in function parameter settings）	
Control output（HH/HI/GO/LO/LL）	NPN output	Max output 20mA	
Control input	Timing, preset, reset, channel input	no voltage input	
Environmental resistance	Environmental temperahune	- 10~+60℃（no frezzing）	
	relative humidity	35~80% RH（non–condensation）	
Material		Body: ABS Button: ABS Panel: MMA Cable: PVC	
Weight		Main control module about 201.6g	Sub–control module about 168.3g
Model		CR-M01	CR-M01A

*The main controller can be matched with up to 4 sub–controllers and can be connected to up to 20 sensor heads.
Each sensor head needs to be equipped with 1 CA08FF–S4F2C.

Dimensions

Unit：mm

Main control module CR–M01



Sub–control module CR–M01A