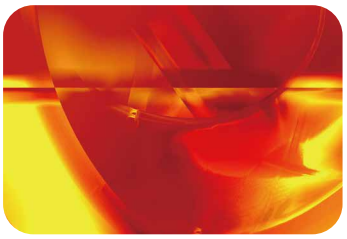





Magnetostrictive Displacement Sensor

E Series Product manual

Honorary Qualification

ED Displacement Sensor

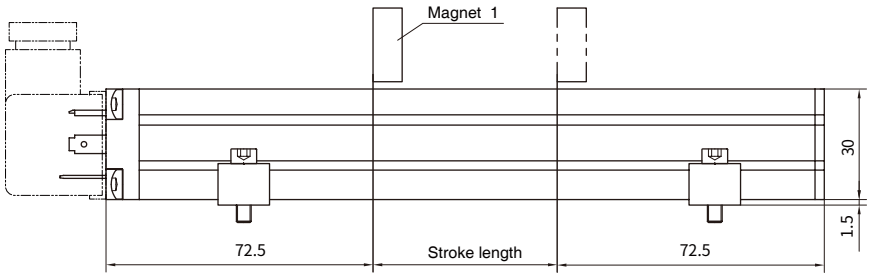
Technical characteristics

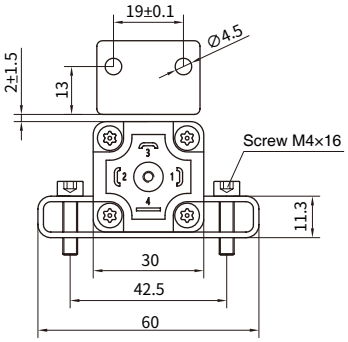
- Non-contact measuring, never wear
- Ultra-small profile, suitable for installation in compact occasions
- Up to two position signal outputs

ED-Analog Output

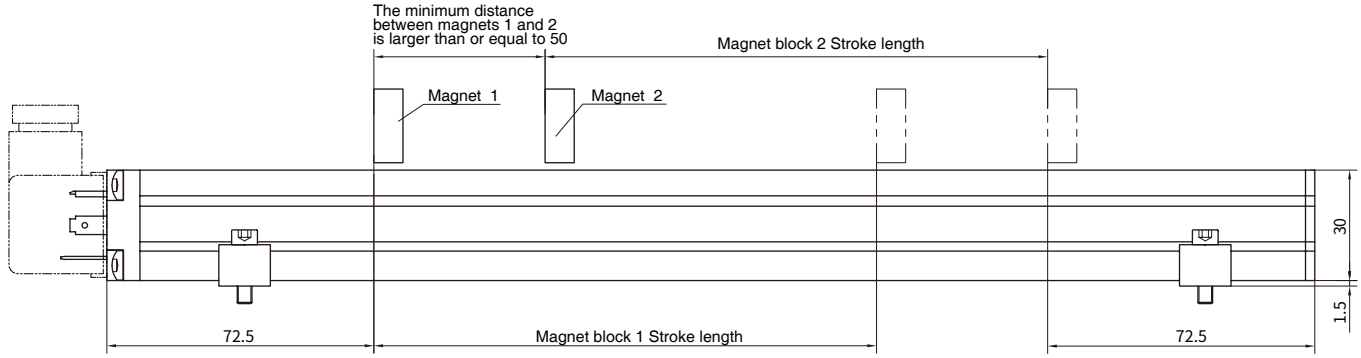
Structural shape

- Single magnet

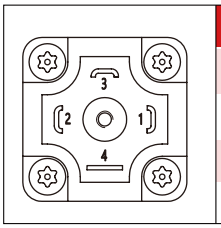




- Two magnet blocks (the sensor length is 50mm longer than a single magnet block)



Wiring and pin definition



No.	Single magnet block pin definition	Two magnet blocks pin definition
1	0~10VDC or 10~0VDC Magnet block1	0~10VDC or 10~0VDC Magnet block2
2	10~0VDC or 0~10VDC Magnet block1	10~0VDC or 0~10VDC Magnet block1
3	+24VDC	+24VDC
4	GND	GND

ED Analog Output - Product Parameters

• Output

Measuring data	Position magnet ring
Stroke length	50~3000 mm,dual position output 50~3000
Voltage	0~10V/10~0V,single/dual
Resolution	0.025% of full scale (minimum 10um)
Nonlinearity	< ± 0.05% of full scale
Repetition accuracy	< ± 0.01% of full scale
Update time	2ms

• Operating conditions

Magnet velocity	Arbitrary
Protection class	IP65
Operating temperature	-40°C ~ +75°C
Humidity/dew point	Humidity 90%, no condensation
Shock index	GB/T2423.5 50g(11ms)
Vibration index	GB/T2423.10 5g/10~2000Hz
EMC test	GB/T17626.2 Anti-interference Degree of Electrostatic Discharge, Grade 4, Class A GB/T17626.3 Radiation Anti-interference Degree of Radio Frequency Electromagnetic Field, Grade 3, Class B GB/T17626.4 Anti-interference Degree of Electrical Fast Transient Train, Grade 4, Class B GB/T17626.6 RF Field Induced Conducted Disturbance, Grade 2, Class B GB/T17626.8 Power Frequency Magnetic Field Anti-interference Degree, Grade 3, Class A CE certification

• Electrical Connections

Input voltage	+24Vdc±20%
Power consumption	< 80mA
Polarity protection	Maximum -30Vdc
Overvoltage protection	Maximum 36Vdc
Insulation resistance	＞10MΩ
Insulation strength	500V

• Construction and Materials

Measuring rod	Aluminum alloy
Outgoing line connection	DIN46530(A)
Installation	Any direction, clamp installation
Position magnet	Suspension magnet

ED Analog Output-Selection Guide

E	D	–	M						–	C	3	–	P	D	4	0	–				–		
01	02		03	04	05	06	07			08	09		10	11	12	13		14	15	16		17	18

01 - 02	Sensor shell form
E D	Integral profile structure series

03 - 07	Measuring range (0025~3000mm, others can be customized according to needs)
	0025~0750mm step length 5mm
	0750~1000mm step length 25mm
	1000~3000mm step length 50mm

08 - 09	Magnet form
	C3 square magnet

10 - 13	Outgoing mode/Cable length
P D 4 0	DIN46530, A-type socket and Connector

14 - 16	Communication interface
V A 1	Single magnet block, voltage 0~10V
V B 1	Single magnet block, voltage 10~0V
V A 2	Two magnet blocks, voltage 0~10V and voltage 0~10V
V B 2	Two magnet blocks, voltage 0~10V and voltage 10~0V
V C 2	Two magnet blocks, voltage 10~0V and voltage 10~0V
V D 2	Two magnet blocks, voltage 10~0V and voltage 0~10V

17 - 18	Non-usable area at head and end
B 1	72.5mm+72.5mm

• Selection example

For example: ED-M0300-C3-PD40-VA1-B1

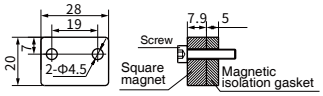
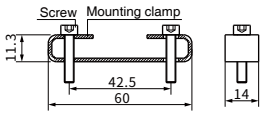
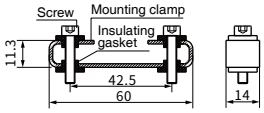
Indicates: ED structure, mounting clamp installation, 300mm Stroke length, standard DIN46530, A-type socket and Connector, single magnet block, output signal 0~10V, non-usable area at head and end 72.5mm+72.5mm.

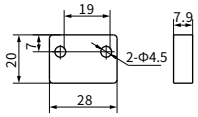
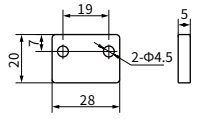
• Supply list

Sensor, certificate, instruction manual, optional parts (optional separately)

ED Analog Output-Common Options

- Magnet ring

Accessory name/ model	Dimensions	Description
Square magnet kit Order No.:288508		One square magnet 211508, one square magnet spacer 211529 (thickness 5mm), two M4X20 socket head cap screws.
Mounting clamp kit Order No.:211584		One mounting clamp, two M4X20 socket screws.
Mounting clamp kit (With insulation) Order No.:211584A		One mounting clamp, two M4X20 socket screws，Four insulating washers.

Accessory name/ model	Dimensions
Square magnet Order No.:211508	
Square magnet gasket Order No.:211529	

Note: For other accessories, please refer to general options