ATOM METRIC
FINEST MEASUREMENTS, HIGHEST PRECISION

ED Displacement Sensor

Technical Characteristics:

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

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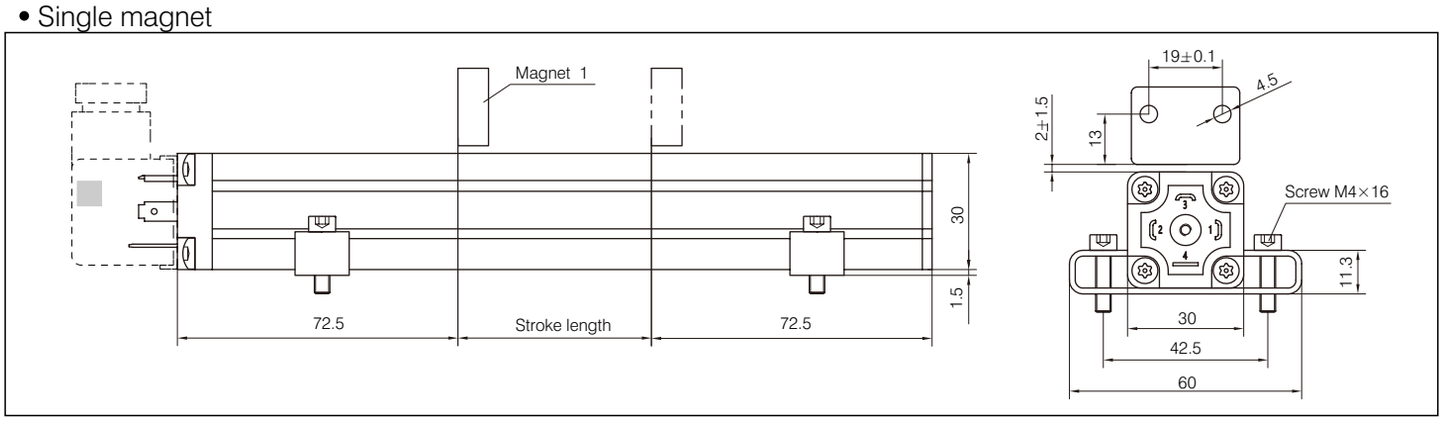
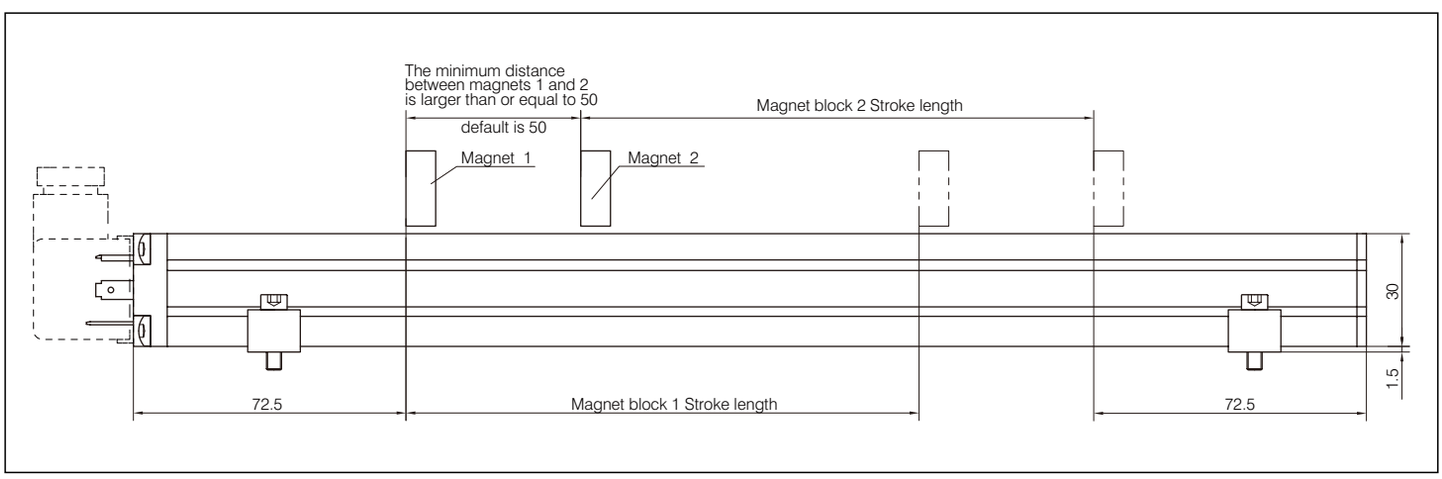
Structural shape

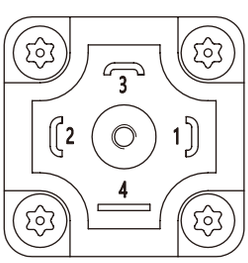
• Single magnet



• 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

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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

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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)

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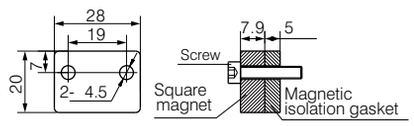
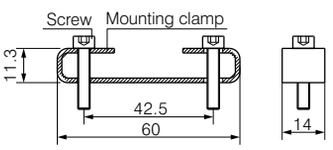
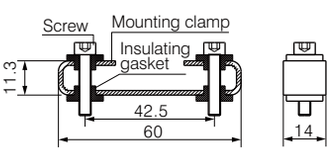
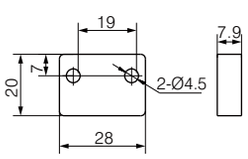
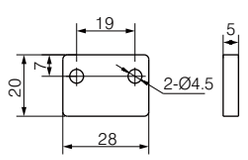
ED Analog Output-Common Options

• 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

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