

LWZ Series

Linear Position Sensor



Feature:

- Better resolution than 0.01mm
- Linear excellence up to 0.05% F.S.
- Maximum working range up to 1000mm
- Strong temperature stability, built-in conversion module
- Output signal can be: potentiometer, 0-10/5VDC, 4-20mA, RS485/232 and output signal refresh time is usually 50 ms

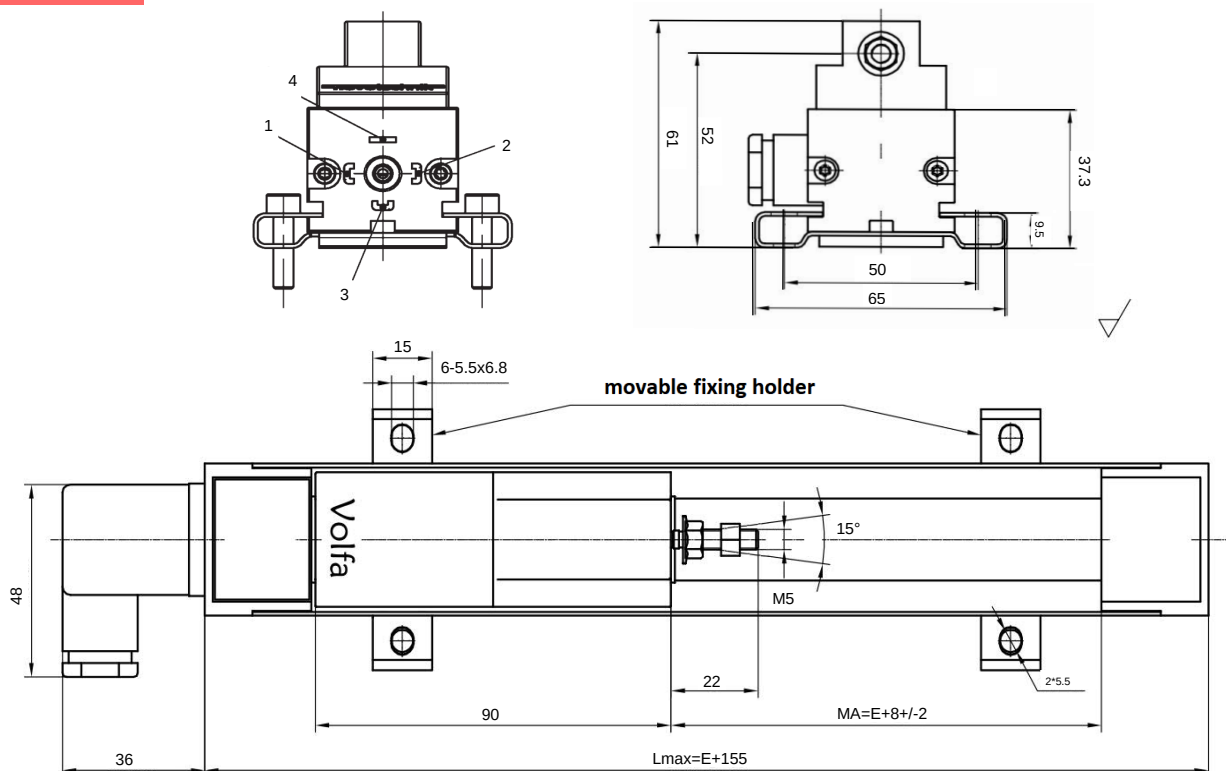
Details:

- Aluminum alloy outer shell, surface electroplating oxidation treatment
- Sliding head ball hinge structure, connecting rod M5 external thread
- Anti-skid head mounted downward protection up to IP54
- Resistance components high precision conductive plastic
- Brush assembly A pair of multi-touch alloy brush,
- Electrical connections to DIN 43650 standard plugs and sockets Straight out shielded cable

Usage:

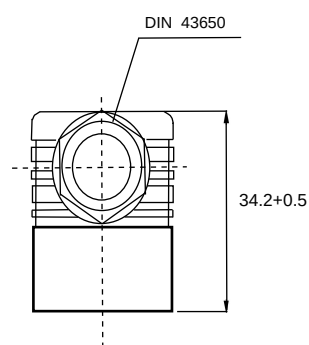
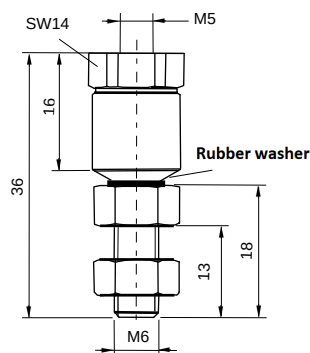
- Injection molding machine, extraction machine
- Experimental equipment, actuator, cylinder
- Mobile platform, woodworking machinery, hydraulic machinery, etc

Dimensions:



Connecting rod ball and socket universal joint (optional for high impact environment)

connection elbow

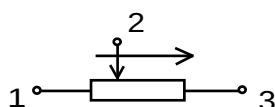


Parameters:

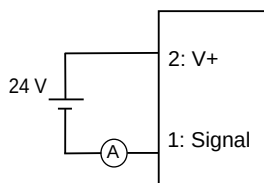
Parameter	unit	Detail
Range (A)	mm	75 100 130 150 175 200 225 250 275 300 350 375 400 450 500 550 600 650 700
Electrical range (B)	mm	76 101 131 151 171 201 227 252 277 302 352 377 402 452 502 552 602 652 702
Effective range (C)	mm	75 100 130 150 175 200 226 251 276 300 351 376 401 451 501 551 602 652 702
Housing length (L)	mm	A + 155
Mechanical range (+/- 2.0)	mm	A + 8
Standard resistance	KΩ	5 10
Resistance tolerance	± %	20
Linearity	± %	0.2 0.1
Repeatability	± %	0.01 F.S
Wiper work current	uA	<1
Drive forec (horizontal/vertical)	N	all below 5
Output signal type		resistance、(0-5)V DC、(0-10)V DC、(4-20)mA、RS485/RS232 (Modbus RTU)
Working temperature	℃	resistance signal: -45 - 125, analog signal: -10 - 80
Antivibration frequency	Hz	5...2000
amplitude	mm	Max= 1.5
acceleration	g	aMax= 15
Anti-shock time	ms	11
forece	g	50
Working life	time	> 20 x 10 ⁶
Protection class		IP 54 (DIN EN 60529)
Permissible work voltage Max	V	resistance signal: 42, analog signal: 18 - 30
Output and input voltage		
effective temperature coefficient	ppm/k	30 in general
Insulation resistance	MΩ	>100 (500VDC)
Insulation strength	uA	<100 (500VAC , 50Hz)

Parameters	unit	Detail
Range (A)	mm	750 800 850 900 1000
Electrical range (B)	mm	752 802 852 902 1002
Effective range (C)	mm	752 802 852 902 1002
Housing length (L)	mm	A + 155
Mechanical range(+/-2.0)	mm	A + 8
Standard resistance	K Ω	10

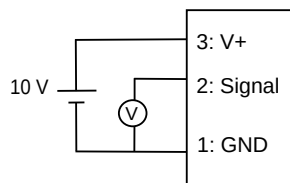
wirings:



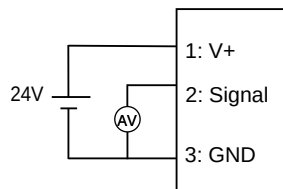
two-wire system current



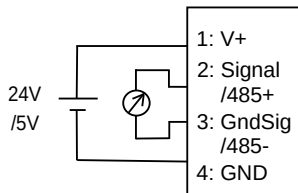
three-wire system voltage



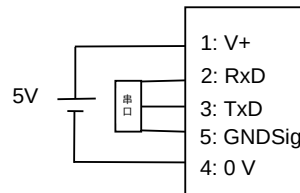
three-wire system voltage/current



four-wire system voltage/current/RS485 output 4-pole shielding cable



RS232 output 5-pole shielding cable



Instructions:

LWZ - XXX - XXX - SXZ

Series

Range

Four-wire system need to remark

aviation plug

50 = 50 mm
75 = 75 mm
...
200 = 200 mm
300 = 300 mm
...
1000 = 1000 mm

Output signal

no: resistance output
A1: 4 - 20 mA two-wire system
V1: 0 - 10 V three-wire system
V2: 0 - 5 V three-wire system
R5: RS485 Modbus RTU
R2: RS232 Modbus RTU

cable output