



## KYDM-L Series Magnetostrictive Linear Displacement Transducers

### Description

Utilizing magnetostrictive technology, KYCM Magnetostrictive linear displacement transducer provides high accurate absolute position measurement of displacement. By providing an absolute output, no data is lost should power be interrupted. In 1997, KangYu introduced the whole set of technique and production line from the United States and became the first manufacturer of Magnetostrictive linear displacement transducer in China. With the expanding of sensor market, KangYu offers KYCM series sensor for different applications. By utilizing the latest digital electric circuit technique, KangYu developed new digital output product-KYDM series.



Hard Tube



External integral

### Application Overview

- Process Control and Monitor of Metallurgy
- Piston Position Inspection of Servo Hydraulic oil cylinder
- Position Inspection of Plastic Extrusion Machine and Woodworkers.
- Valve, Ball Valve Position
- Fluid Level Measurement of Tank of Petrification, Pharmacy, Food Process
- Water Level Control and monitor of Water conservancy

### Features

- Non-contact sensing
- Reliable and high durability
- Protective “G” structure which may endure pressure
- High accuracy and repeatability
- Absolute position output
- Multi-position measurement



### Specifications:

Power supply	+24VDC $\pm$ 10% ; $\pm$ 15VDC $\pm$ 10% ; +12VDC
Outputs	0~5VDC 0~10VDC -5~+5VDC -10~+10VDC 4~20mADC ModBus SSI Profibus Star/Stop
Range	Rigid structure: 50~5000mm Flexible structure: 4000~20000mm
Load	Current output:Load Resistance 500 $\Omega$ (Max.)
	Voltage output:Load current 2mA(Max.)
Operating current	<70mA
Operating temperature	-40~+85 °C
Storage temperature	-40~+100 °C
Nonlinearity	< $\pm$ 0.05% F.S. Or 150um max.
Repeatability	< $\pm$ 0.002% F.S.
Resolution	16bitD/A ,0.1mm
Hysteresis	< $\pm$ 0.002% F.S.
Temperature coefficient	< $\pm$ 0.007%#F.S./°C
Zero range	100%F.S.
Full range	100%F.S.
Update time	<20ms
Probe	A.0Cr18Ni9 (304) B.316SS
Cover	A.0Cr18Ni9(304)
Mounting	A.threaded connection B.threaded flange
Cable	integral cable, mating connector, integral connector
Environmental Protection	IP65
Explosion Proof	Exd II BT5、Exia II CT6

### Application Description:

KYDM-L linear transducer operates in hostile industrial environments with high temperature and working pressure. The high performance and reliability of the transducer make it ideal for measuring position of moving members in control field or equipments.

KYDM-LP 1 V0110-

G C 0500M 1 C 0 3-W O

Safety Category

P Common

G Flame-proof

Input

1 24 VDC (±10%)

2 15 VDC (±10%)

3 ±15 VDC (±10%)

4 Special (12VDC-24VDC)

Output

V [1][2]output [3]Magnet [4]Direction  
01=0~10v 05=0~5v; 1=Single; 0=Positive<sup>(1)</sup>  
55=-5~+5v 11=-10~+10v; 2=Double 1=Opposite<sup>(2)</sup>

A [1][2]output [3]Magnet [4]Direction  
42=4~20mA 1=Single; 0=Positive<sup>(1)</sup>  
2=Double 1=Opposite<sup>(2)</sup>

Structural features A

G Hard tube

H External integral

Structural features B

C C type of electronic housing

X Special

Your range (mm)

Connection

1 Metric screw thread M18\*1.5

2 Metric screw thread M20\*1.5

3 Inch screw thread 3/4-16UNF

X Special

0 Null

Outlet A

C Cable

J Connection Terminator (Cable on side only)

H Aviation Plug (For flame-proof noly)

N High temperature cable

Outlet B

0 Cable on top

1 Cable on side

Output C

0~9 (Cable length)

Mounting Kit

A Mounting Kit FK-1 (For Hard tube)

B Mounting Kit FK-2 (For Hard tube)

C Fixed seat (For External integral)

W Null

Magnet Type

[O] Close magnet ring

[K] Open magnet ring

[T] Magnet slider

[X] Special magnet ring (Customized)

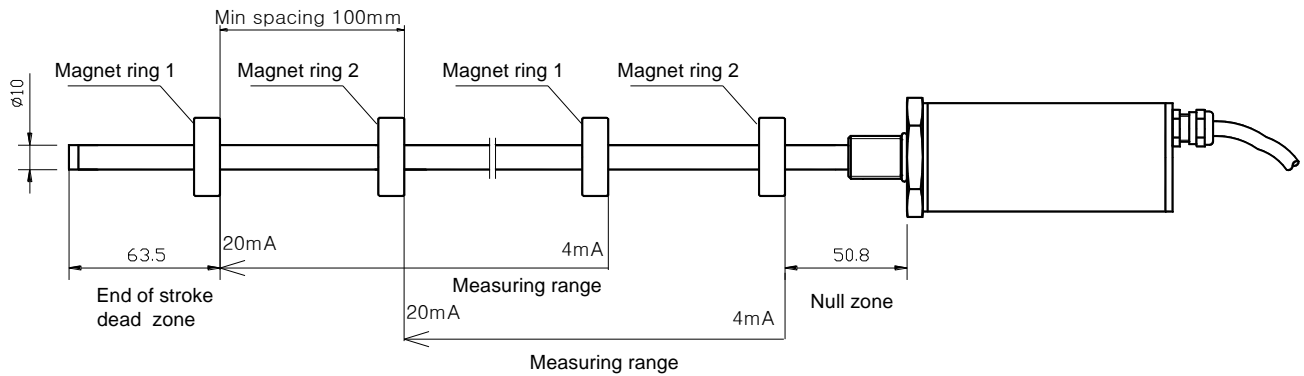
(1) 0 point near the end

(2) 0 point near the top

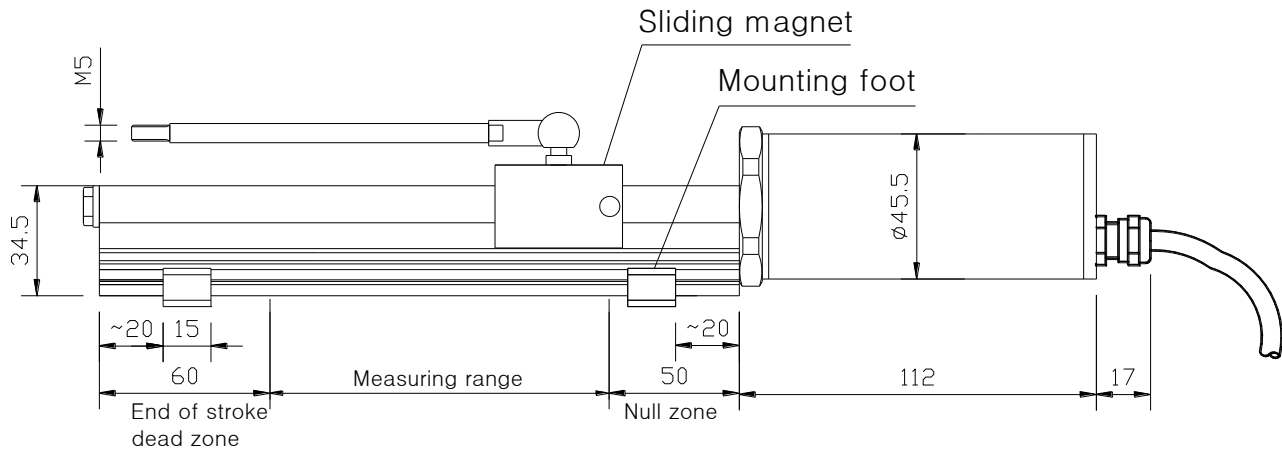


## Schematic diagram:

### 1. Hard tube



### 2. External integral



## Application Picture



橡胶机械

Rubber machinery



冶金轧机

Metallurgical rolling mill



大坝安全检测 Dam safety detection

Gross Weight: 1.5KG (general type, 1 meter range)

Net Weight: 1KG (general type, 1 meter range)

Xinhui KangYu Control Systems Engineering, Inc.

Guifeng Hightech Village, Ximen Rd., Xinhui District, Jiangmen City, Guangdong 529100, P.R. China

Tel: 86-750-6318857 Fax: 86-750-6318900 E-mail: [sale@chinakangyu.com](mailto:sale@chinakangyu.com) Website: [www.chinakangyu.com](http://www.chinakangyu.com)