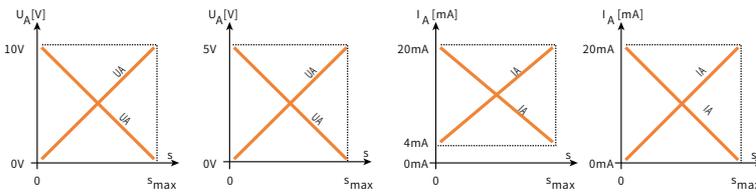


K-Analog

K-Series

Data Sheet



- + Compact structure, thread mounting easy to install and disassemble, suitable for space limited applications
- + Strong resistance to high-frequency electromagnetic interference, high anti-vibration and shock resistance
- + Linear displacement, absolute value output
- + housing package, non-contact measurement, high durability
- + Replace Hall principle, highest reliability



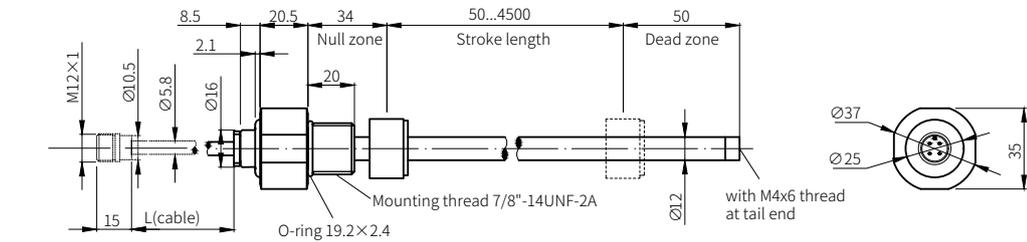
TECHNICAL PARAMETER

TECHNOLOGY PERCEIVES THE FUTURE

Input	Measured data	Position								
	Measurement range	50...4500mm								
Output	Voltage	0...10VDC, 10...0VDC, 0...5VDC, 5...0VDC (Controller min. load impedance >5KΩ)								
	Current	4...20mA, 20...4mA, 0...20mA, 20...0mA (min./max. load 0/750Ω)								
Resolution	Position resolution	16 bit D/A								
	None-Linearity	< ±0.02%F.S. (min. ±100μm)								
	Repeatability	< ±0.002%F.S.								
	Update time	<table border="1"> <tr> <td>Stroke length</td> <td>≤ 1200mm</td> <td>≤ 2400mm</td> <td>≤ 4500mm</td> </tr> <tr> <td>Update time</td> <td>0.5ms</td> <td>1ms</td> <td>2ms</td> </tr> </table>	Stroke length	≤ 1200mm	≤ 2400mm	≤ 4500mm	Update time	0.5ms	1ms	2ms
	Stroke length	≤ 1200mm	≤ 2400mm	≤ 4500mm						
Update time	0.5ms	1ms	2ms							
Temperature coefficient	<30ppm/°C									
Mounting	Mounting position	Any								
	Thread	7/8"-14UNF,3/8"-BSPP(customizable)								
Design/ Material	Electronics housing	Stainless steel 304								
	Measuring rod	Stainless steel 304/316L								
	Outer tube diameter	Φ12 rod/Φ10 rod								
	Operating pressure ratings	35MPa (continuous) ,70MPa (peak)								
Design/ Material	Wiring connection	Straight out cable or 4 pin M12 aviation plug								
	Operating voltage	+24VDC(-15/+20%)								
	Polarity protection	Up to -36VDC								
	Overvoltage protection	Up to +36VDC								
	Power consumption	< 90mA (varies with range size)								
	Dielectric strength	500 VDC (DC ground to machine ground)								
Operating conditions	Magnet velocity	Any								
	Operating temperature	-40 ~ 85°C								
	Humidity	90 % relative humidity, no condensation								
	Ingress protection	IP68 (straight out cable)								
	Shock	100 g (single shock) IEC standard 60068-2-27								
	Vibration	15g/10...2000 Hz, IEC standard 60068-2-6 (resonant frequencies excluded)								
	EMC	Electromagnetic emission according to EN 61000-6-3 Electromagnetic immunity according to EN 61000-6-2								
ITEM	CATEGORY	PARAMETER								

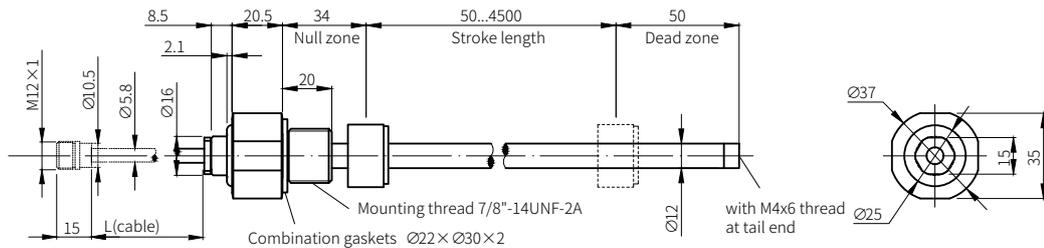
Basic type (Electronics housing thickness 20.5mm, Mounting thread 7/8 “-14UNF) ,O-ring sealing

KF- ____ - RP/T ____ -
 - DP/T ____ -



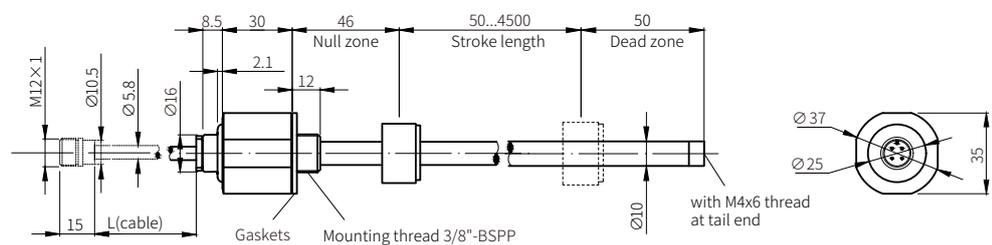
Basic type (Electronics housing thickness 20.5mm, Mounting thread 7/8 “-14UNF) ,Combination gasket sealing

KT- ____ - RP/T ____ -
 - DP/T ____ -



Customized type (Electronics housing thickness 30mm, Mounting thread 3/8 “-BSPP) ,Gasket sealing

KE- ____ - RP/T ____ -
 - DP/T ____ -



Straight out cable

Color	● Brown	○ White	● Green
Function	+24VDC(-15/+20%)	0 VDC(GND)	Signal output

4 pin M12 connector

PIN-Male	1	2	3	4
Function	+24VDC(-15/+20%)	Signal output	0 VDC(GND)	NC



View on sensor

Diagram of O-ring seal end housing processing

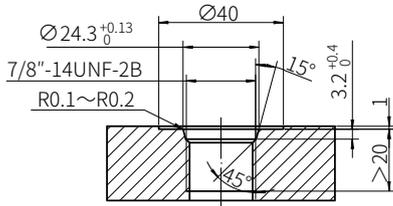


Diagram of the processing of combined gasket type end housing

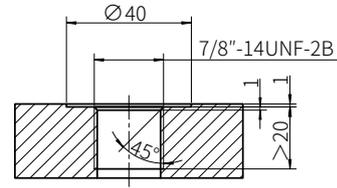
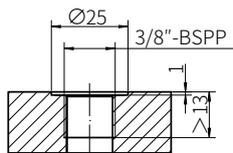
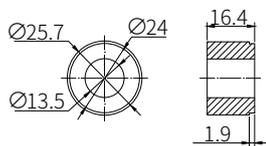


Diagram of gasket-type end housing processing

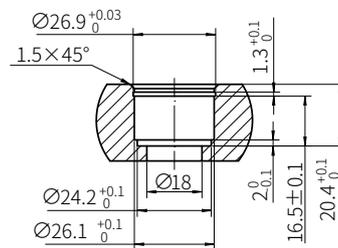


Standard ring magnet drawings



Ring magnet OD25.7
Order code 12-1026

Ring magnet shell processing drawings



Magnetic ring mounting: The magnetic ring can be fixed with a retaining ring when it is available

K - - - - M - - - -					Output (Output Code)
Thread	Rod type	Stroke length	Connection type		
F Basic type,O-ring sealing, Mounting thread 7/8"-14UNF	D Rod -Φ10mm,with M4x6 thread at tail end	0050...4500mm (5mm increments)	RP__ Straight out __m high performance cable RT__ Straight out __m high temperature cable		
T Basic type,Combination gasket sealing,Mounting thread 7/8"-14UNF	R* Rod -Φ12mm,with M4x6 thread at tail end		DP__ Straight out __m high performance cable connected to 4 pin M12 aviation plug DT__ Straight out __m high temperature cable connected to 4 4 pin M12 aviation plug		
E Customized type,Gasket sealing, Mounting thread 3/8"-BSPP	"*" Only 7/8"-14UNF threads are available				

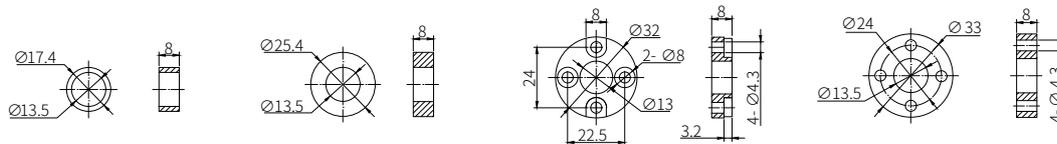
(If the cable length is less than two digits, add zeros in front.)

Analog Output Code	[1][2][3]	
	[1][2] Current/Voltage	[3] Magnet
A0	4...20mA (forward)	V0 0...10V (forward)
A1	20...4mA (reverse)	V1 10...0V (reverse)
A2	0...20mA (forward)	V2 0...5V (forward)
A3	20...0mA (reverse)	V3 5...0V (reverse)
		1 one magnet

Note: forward, data grows larger when the magnet is distant from the electronics housing;
reverse, data grows larger when the magnet approaches the electronics housing.

Model selection	Model: KF-D-0100M-RP05-A01
	Explanation: K series, O-ring sealing,mounting thread 7/8"-14UNF,Φ10mm measuring rod, stroke length 800mm,straight out 5m high performance cable, 4 to 20mA current output (forward), single magnetic ring.

■ Please contact us for more customized products.
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Name	Ring magnet	Ring magnet	Ring magnet	Ring magnet
Operating temperature	-40...125°C			
Order code	12-1032	12-1019	12-1024	12-1001
Fitting non-permeable gasket				
Name	Non-permeable gasket	Non-permeable gasket	Non-permeable gasket	Non-permeable gasket
Operating temperature	-40...125°C			
Order code	12-1037	12-1021	12-1025	12-1008



Connector	5 pin M12 female connector	5 pin female connector (90 degree angle)
Name	Integral cable	Integral cable
Cable	5 wire 0.25mm ² shielded cable	5 wire 0.25mm ² shielded cable
Color/Diameter	Orange/ Ø 6	Orange/ Ø 6
End view drawing	<ul style="list-style-type: none"> 1-Brown 2-Green 3-White 4-Grey 5-Yellow 	<ul style="list-style-type: none"> 1-Brown 2-Green 3-White 4-Grey 5-Yellow
Length	5...30M	5/10/15/20/30M
Order code	16-1035	16-1040

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