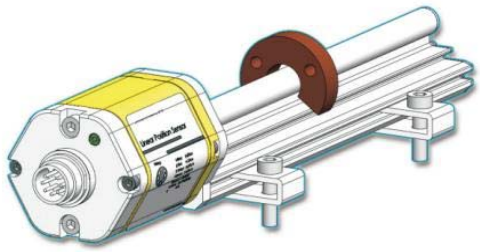
Analog/SSI Output



Features

- External installation, easy to use
- No zero, absolute displacement output
- Non-contact sensing technology, never worn
- High accuracy, 16 bit D/A for Analog output type, min. 0.5um for SSI output type
- Non-linearity <±0.01% of full stroke
- Repeatability: <±0.001% of full stroke.
- Easy to diagnosis, LED lamp real-time display
- Modular design, replaced by convenience
- Low power design, reduce the heat

PARAMETERS SPECIFICATIONS

Measuring parameters

Analog output	*SSI output*
Measured range: 25mm-3500mm	Measured range: 25mm-3500mm
Output : Current 4-20mA(**Load resistance**: ≤500Ω)	SSI signal : 24,25,26 bit binary/Gray code
Voltage 0- 10Vdc (**Load resistance:** >5kΩ)	Transmission speed: 70kBd-1Mb
Resolution: 16 bit D/A(no limit)	Wire length: <3 <50 <100 <200 <400 m
Non-linearity : <±0.01% of full stroke(Min.50um).	Speed: 1000<400 <300 <200 <100 kBd
Repeatability: <±0.002% of full stroke.(Min.2um)	Resolution: 0.5/1/2/5/10/20/50/100 um
Updated time: 0.5ms(stroke <0.5m)	Non-linearity : <±0.01% of full stroke(Min.40um).
1.0ms(0.5m<stroke<1m)	Repeatability: <±0.001% of full stroke.(Min.1 bit)
2.0ms(1m<stroke<2m)	Updated time: stroke 300 750 1000 2000 5000 （mm）
3.0ms(2m<stroke<3m)	Frequency 3.7 3.0 2.3 1.2 0.5 （kHz）

Operation conditions

Operating Temperature: -40℃ to +85℃	Operating Temperature: -40℃ to +85℃
Temperature coefficient: <30ppm℃	Temperature coefficient: <30ppm℃
Relative humidity: 90% no condensation	Relative humidity: 90% no condensation
Electronic protection: IP67	Electronic protection: IP67

Mounting and attachment

Mounting direction: any	Mounting direction: any
Mounting type: fixing clamp, with screw M5x20	Mounting type: fixing clamp, with screw M5x20
Magnet type: float magnet, opening magnet ring	Magnet type: float magnet, opening magnet ring

Electrical characteristics

Wiring type: Integral cable or 6 pin Aviation connector	Wiring type: Integral cable or 7 pin Aviation connector
Operating voltage: 24Vdc(-15/+20%)	Operating voltage: 24Vdc(-15/+20%)
Operating current: <60mA	Operating current: <50mA
Polarity protection: up to -30Vdc	Polarity protection: up to -30Vdc
Overvoltage protection: up to 36Vdc	Overvoltage protection: up to 36Vdc
Insulating ability: 500V(between Signal and housing)	Insulating ability: 500V(between Signal and housing)
Fault display: Red, Green dual LED displayer	Fault display: Red, Green dual LED displayer

Structure and Housing

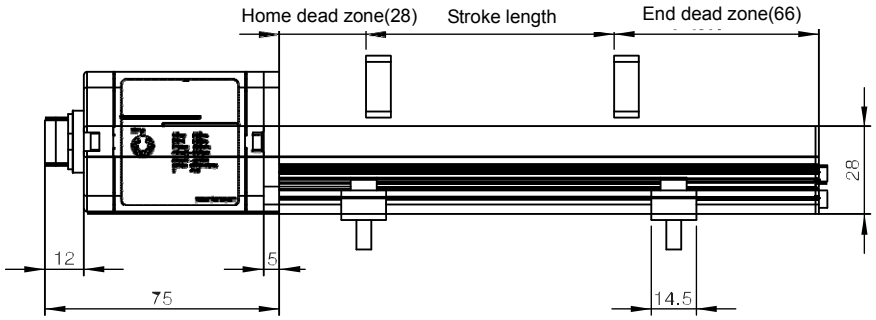
Sensor head: Aluminium	Sensor head: Aluminium
Housing: Aluminium	Housing: Aluminium
Fixing clamp: 304L stainless steel	Fixing clamp: 304L stainless steel

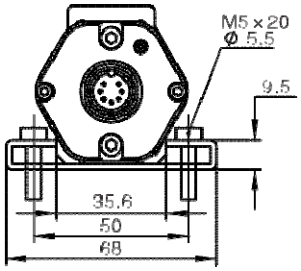
Analog/SSI Output

Model RP sensor dimension reference

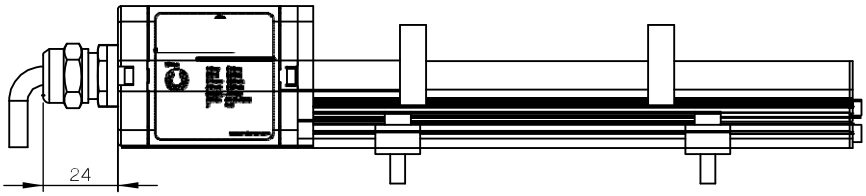
Model RP Sensor: Drawing is for reference only, contact applications engineering for tolerance specific information

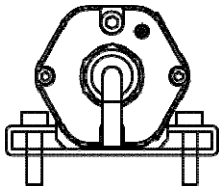
Aviation connector





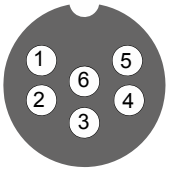
Integral cable





Electronic wiring

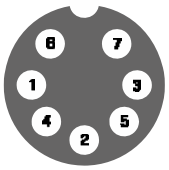
Analog Output type



Male connector
(Face to sensor head)

Pin	Color	Description
1	Gray	Output Signal(0-20mA, 0-10V)
2	Pink	Output(GND)
3	Yellow	(+) Communication interface
4	Green	(-) Communication interface
5	Brown	(+) Power +24Vdc(-15/+20%)
6	White	(GND) Power

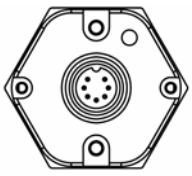
SSI Output type



Male connector
(Face to sensor head)

Pin	Color	Description
1	Gray	(-)Output Signal
2	Pink	(+)Output Signal
3	Yellow	(+) Clock
4	Green	(-) Clock
5	Brown	(+) Power +24Vdc(-15/+20%)
6	White	(GND) Power
7	N.C.	

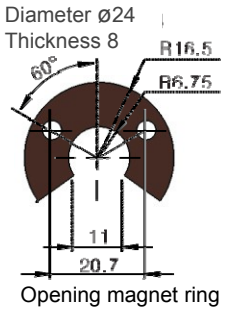
Status indicator



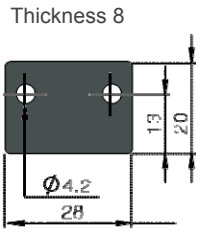
Status	Description
Green on	Normal working
Green flash	Programming mode
Red flash	Magnet out of range
Red on	Magnet not detected

Analog/SSI Output

Standard magnet selections

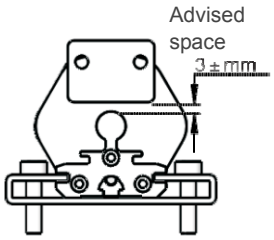


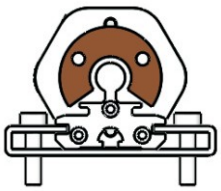
Opening magnet ring



Float magnet

Installation





Ordering Information

Analog Output type

R P ☐ ☐☐☐☐ M ☐☐☐ ☐☐☐

MAGNET TYPE
S = opening magnet ring
F = float magnet

STROKE LENGTH
0025 to 3500 mm in 5mm step

CONNECT TYPE
Aviation connector
D60 = 6 pin analog output connector

Waterproof cable: (unit m)
S_ _ = standard cable + cable length
T_ _ = high temperature cable + cable length

OUTPUT
A10 = Current 4-20mA
A11 = Current 20-4mA
V10 = Voltage 0-10V
V11 = Voltage 10-0V

SSI Output type

R P ☐ ☐☐☐☐ M ☐☐☐ S ☐☐☐☐

MAGNET TYPE
S = opening magnet ring
F = float magnet

STROKE LENGTH
0025 to 3500 mm in 5mm step

CONNECT TYPE
Aviation connector
D70 = 7 pin SSI output connector

Waterproof cable: (unit m)
S_ _ = standard cable + cable length
T_ _ = high temperature cable + cable length

OUTPUT DIRECTION
0 = Positive 1 = Negative

RESOLUTION
1 = 0.001mm 2 = 0.002mm
3 = 0.005mm 4 = 0.01mm
5 = 0.02mm 6 = 0.05mm
7 = 0.1mm 8 = 0.0005mm

OUTPUT FORMAT
1G = 25 bit Gary 1B = 25 bit binary
2G = 24 bit Gary 2B = 24 bit binary
3G = 26 bit Gary 3B = 26 bit binary