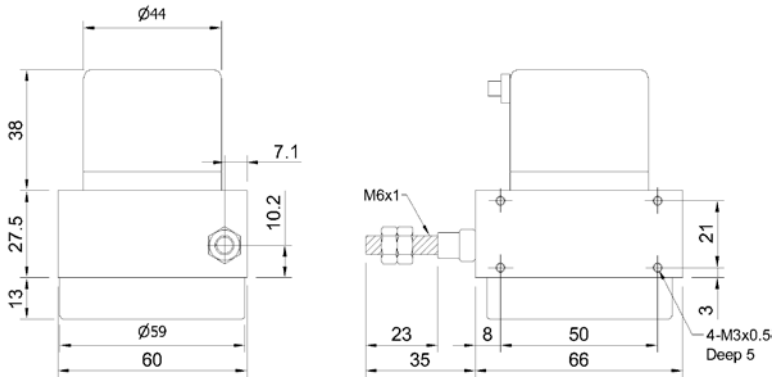
HLS-S

DISPLACEMENT SENSOR

LINEAR WIRE ENCODER

- Measuring Range 1000 mm
- Push Pull, Line Driver
- DC 5~26V

DIMENSION



ORDERING INFORMATION

HLS-S-10 - [ ] **A -** [ ]

Resolution	*Electronics*
1 : 1 mm	**P**: Push Pull
01 : 0.1 mm	*__H__: Line Driver
004 : 0.04 mm	

ELECTRICAL SPEC.

Detection System	Incremental
Output Wave	Square Wave
Stroke (mm)	1000
Standard Resolution (mm/pulse)	1, 0.1, 0.04 mm/pulse
Accuracy	±0.05% FS, ±1 count
Output Phase	ABZ phase
Electronics	Push Pull or Line Driver
Power Supply	DC 5~26V
Current Consumption	≤ 60 mA
Output Capacity	Sync. Current: 20 mA, Residual Voltage: 0.5V or less
Max. Response	Max. 100K Hz
Phase Different	A, B phase different 90°±45° (T/4±T/8), Z phase T±T/2
Wave Form Rise / Fall	2 μs or less
Polarity	Against Reverse Protection

MECHANICAL SPEC.

Wire Specification	Material: SUS304 with nylon coating Diameter: 0.6 mm; Breaking load: 16 Kg
Max. Travel Speed	1,000 mm / sec.
Vibration	Max. 10g (10 ~55 Hz / 1.5 mm X.Y.X. 2Hr)
Shock	20g per 11 ms
Cable	Ø4.5, 50 cm long
Weight	< 450g
Starting Torque on Spring	Max. 700 g

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	0°C ~ 60°C, RH 35% ~ 90% (No Condensation)
Storage Temp.	-20°C ~ 70°C
Protection	IP50: Dust Proof (only for encoder housing)
Life	Typical > 1 X 10^6 cycles

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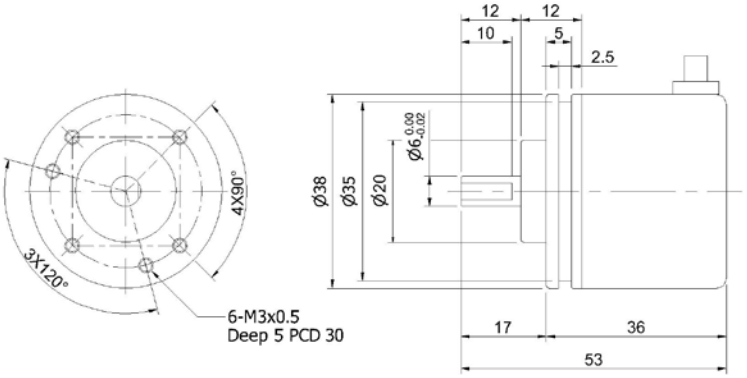
HTR-3A

ROTARY ENCODER

LIGHT DUTY

- Light Dity
- Shaft Diameter 6 mm
- Push Pull, Line Driver
- DC 5~26V

DIMENSION



ORDERING INFORMATION

HTR-3A - [ ] **A** - [ ]

Pulse per Revolution	*Electronics*
5, **10**, **50**, **100**, **200**, **300**, **360**, **400**, **500**, **600**, **900**, **1000**, **1024**, **1200**, **1500**, **1800**, **2000**, **2048**, **2500**	**P**: Push Pull *__H__: Line Driver

ELECTRICAL SPEC.

Detection System	Incremental
Output Wave	Square Wave
Standard Number of Pulse Per Revolution	5, 10, 50, 100, 200, 300, 360, 400, 500, 600, 900, 1000, 1024, 1200, 1500, 1800, 2000, 2048, 2500
Output Phase	ABZ phase
Electronics	Push Pull, Line Driver
Power Supply	DC 5~26V
Current Consumption	≤ 60 mA
Output Capacity	Sync. Current: 20 mA, Residual Voltage: 0.5V or less
Max. Response	Max. 100K Hz
Phase Different	A, B phase different 90°±45° (T/4±T/8), Z phase T±T/2
Wave Form Rise / Fall	2 μs or less
Polarity	Against Reverse Protection

MECHANICAL SPEC.

Shaft Diameter	6 mm
Shaft Loading	(5 ~ 1024 PPR) Axial: 1 Kg, Radial: 2 Kg (over 1024 PPR) Axial: 0.5 Kg, Radial: 1 Kg
Starting Torque (at 25°C)	30 gf-cm or less
Max. Speed	6,000 rpm
Vibration	Max. 10g (10 ~55 Hz / 1.5 mm X.Y.X. 2Hr)
Shock	20g per 11 ms
Cable	Ø4.5, 1000 mm long
Weight	≤ 200g

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	0°C ~ 60°C, RH 35% ~ 90% (No Condensation)
Storage Temp.	-20°C ~ 70°C
Protection	IP50: Dust Proof

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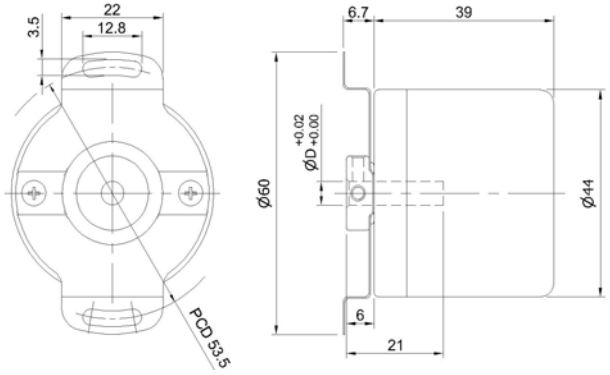
HTR-HB

ROTARY ENCODER

HOLLOW SHAFT

- Light Dity
- Hollow Shaft Diameter 6, 8, 10 mm
- Mounting PCD 53.5
- Push Pull, Line Driver
- DC 5~26V

DIMENSION



ORDERING INFORMATION

HTR-HB - [ ] - [ ] **A** - [ ]

Hole Size	*Pulse/Revolution*	*Electronics*
6: Ø6 **8**: Ø8 **10**: Ø10	**5**, **10**, **50**, **100**, **200**, **300**, **360**, **400**, **500**, **600**, **900**, **1000**, **1024**, **1200**, **1500**, **1800**, **2000**, **2048**, **2500**	**P**: Push Pull *__H__: Line Driver

ELECTRICAL SPEC.

Detection System	Incremental
Output Wave	Square Wave
Standard Number of Pulse Per Revolution	5, 10, 50, 100, 200, 300, 360, 400, 500, 600, 900, 1000, 1024, 1200, 1500, 1800, 2000, 2048, 2500
Output Phase	ABZ phase
Electronics	Push Pull, Line Driver
Power Supply	DC 5~26V
Current Consumption	≤ 60 mA
Output Capacity	Sync. Current: 20 mA, Residual Voltage: 0.5V or less
Max. Response	10K Hz ~ 150K Hz
Phase Different	A, B phase different 90°±45° (T/4±T/8), Z phase T±T/2
Wave Form Rise / Fall	2 μs or less
Polarity	Against Reverse Protection

MECHANICAL SPEC.

Hollow Shaft Diameter	6, 8, 10 mm
Shaft Loading	(5 ~ 1024 PPR) Axial: 1 Kg, Radial: 2 Kg (over 1024 PPR) Axial: 0.5 Kg, Radial: 1 Kg
Starting Torque (at 25°C)	30 gf-cm or less
Max. Speed	6,000 rpm
Vibration	Max. 10g (10±1,500 Hz)
Shock	20g per 11 ms
Cable	Ø4.5, 1000 mm long
Weight	≤ 200g

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	0°C ~ 60°C, RH 35% ~ 90% (No Condensation)
Storage Temp.	-20°C ~ 70°C
Protection	IP50: Dust Proof

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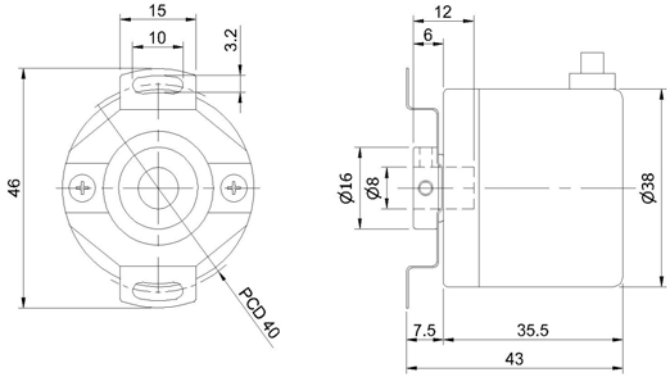
HTR-HN

ROTARY ENCODER

HOLLOW SHAFT

- Light Dity
- Hollow Shaft Diameter 8 mm
- Mounting PCD 40
- Push Pull, Line Driver
- DC 5~26V

DIMENSION



ORDERING INFORMATION

HTR-HN -8 - [ ] **A -** [ ]

Pulse per Revolution	*Electronics*
5, **10**, **50**, **100**, **200**, **300**, **360**, **400**, **500**, **600**, **900**, **1000**, **1024**, **1200**, **1500**, **1800**, **2000**, **2048**, **2500**	**P**: Push Pull *__H__: Line Driver

ELECTRICAL SPEC.

Detection System	Incremental
Output Wave	Square Wave
Standard Number of Pulse Per Revolution	5, 10, 50, 100, 200, 300, 360, 400, 500, 600, 900, 1000, 1024, 1200, 1500, 1800, 2000, 2048, 2500
Output Phase	ABZ phase
Electronics	Push Pull, Line Driver
Power Supply	DC 5~26V
Current Consumption	≤ 60 mA
Output Capacity	Sync. Current: 20 mA, Residual Voltage: 0.5V or less
Max. Response	10K Hz ~ 150K Hz
Phase Different	A, B phase different 90°±45° (T/4±T/8), Z phase T±T/2
Wave Form Rise / Fall	2 μs or less
Polarity	Against Reverse Protection

MECHANICAL SPEC.

Hollow Shaft Diameter	8 mm
Shaft Loading	(5 ~ 1024 PPR) Axial: 1 Kg, Radial: 2 Kg (over 1024 PPR) Axial: 0.5 Kg, Radial: 1 Kg
Starting Torque (at 25°C)	30 gf-cm or less
Max. Speed	6,000 rpm
Vibration	Max. 10g (10±1,500 Hz)
Shock	20g per 11 ms
Cable	Ø4.5, 1000 mm long
Weight	≤ 200g

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	0°C ~ 60°C, RH 35% ~ 90% (No Condensation)
Storage Temp.	-20°C ~ 70°C
Protection	IP50: Dust Proof

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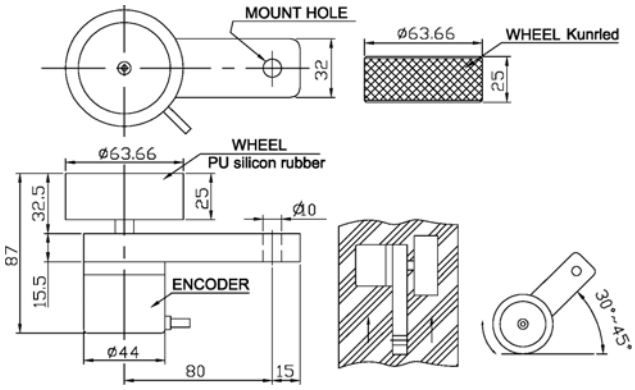
HTR-MW

ROTARY ENCODER

METER WHELL

- Meter Wheel
- Rubber Wheel, Metal Knurled Wheel
- Push Pull, Line Driver
- DC 5~26V

DIMENSION



ORDERING INFORMATION

HTR-MW [ ] - [ ] **A** - [ ]

Wheel Type	*Resolution*	*Electronics*
K: Metal Knurled **B**: Rubber	**100, 10, 5, 2, 1, 0.5, 0.2, 0.1** mm/pulse	**P**: Push Pull *__H__: Line Driver

ELECTRICAL SPEC.

Detection System	Incremental
Output Wave	Square Wave
Standard Resolution	100, 10, 5, 2, 1, 0.5, 0.2, 0.1 mm/pulse
Output Phase	ABZ phase
Electronics	Push Pull, Line Driver
Power Supply	DC 5~26V
Current Consumption	≤ 60 mA
Output Capacity	Sync. Current: 20 mA, Residual Voltage: 0.5V or less
Max. Response	10K ~ 150K Hz
Phase Different	A, B phase different 90°±45° (T/4±T/8), Z phase T±T/8
Wave Form Rise / Fall	1 μs or less
Polarity	Against Reverse Protection

MECHANICAL SPEC.

Type of wheel	Metal Knurled / Rubber
Wheel Circle Length	200 mm +/- 0.1%
Max. Speed	5 m / sec.
Vibration	10g (10±1,500 Hz)
Shock	20g per 11 ms
Cable	Ø4.5, 1000 mm long
Weight	≤ 500g

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	0°C ~ 60°C, RH 35% ~ 90% (No Condensation)
Storage Temp.	-20°C ~ 70°C
Protection	IP50: Dust Proof

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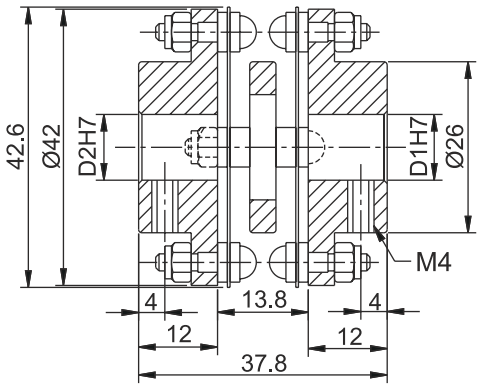
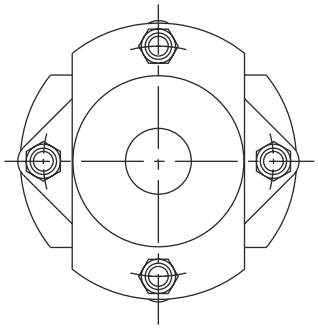
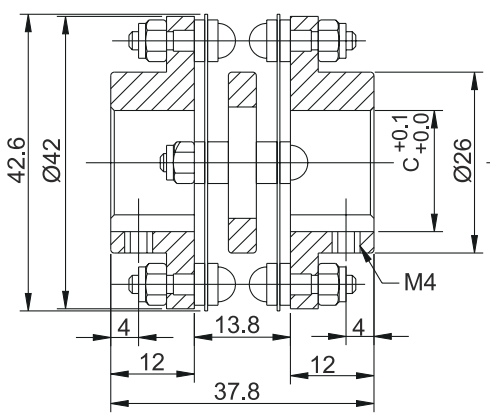


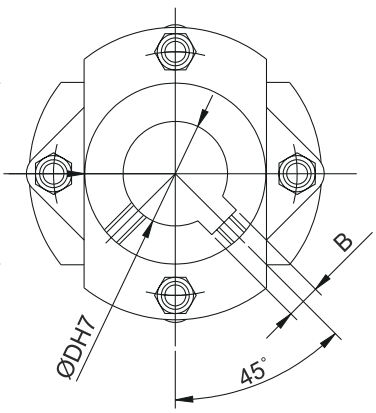


D=8 10 12

Diameter (mm)	Max. rpm	Allowable torque	Allowable mounting misalignment		Torsional rigidity	Temperature range	Weight	Moment of inertia
			Angular offset	Parallel offset				
8, 10, 12	20,000 r/min	40kgf·cm	1.5°	0.3 mm	390kgf·cm/deg	-20°C ~ +100°C	65 g	440gf·cm·s^2

With Keyway





Diameter (mm) øD	B	C
11	4P9	12.8
15	5H7	17.4

Max. rpm	Allowable torque	Allowable mounting misalignment		Torsional rigidity	Temperature range	Weight	Moment of inertia
		Angular offset	Parallel offset				
20,000 r/min	40kgf·cm	1.5°	0.3 mm	390kgf·cm/deg	-20°C ~ +100°C	65 g	440gf·cm·s^2

ORDERING INFORMATION

HC-42 | Diameter | X | Diameter |

e.g. 8: 8 mm

e.g. 15K : 15 mm With Keyway

*Type: HC-42-15k x 15k

Recommended to use with HONTKO's encoder HPN-6D.

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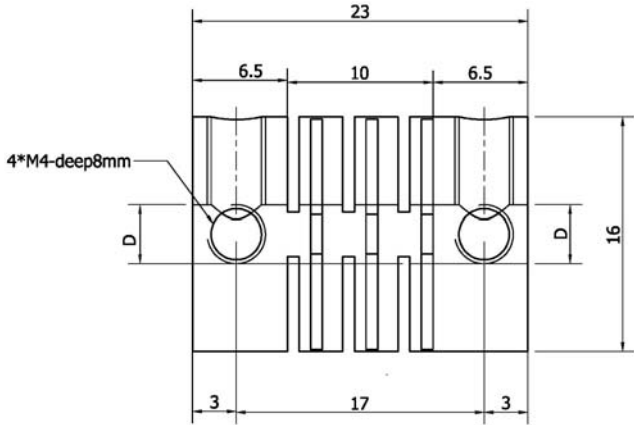
H J

FLEXIBLE COUPLING



DIMENSION

Inside Hole Diameter ØD(mm)	4 and 4; 6 and 6
Mounting	M4X4
Wrench Torque(N.m)	0.3
Mass** (g)	4.5

SPECIFICATION

Rated Torque (N.m)	1.0
Max. Rotational Frequency (N.m/deg)	0.002
Moment* Of Inertia ($g \cdot cm^2$)	1.3
Static Tortional Stiffness (N.m/rad)	16
Errors of Angularity (°)	5
Errors of Eccentricity (mm)	0.4
Operating Temp	70°C

MATERIAL 材

POM

ORDERING INFORMATION

Series Type		Inside Diameter
H J		4 X 4 6 X 6

CHARACTER 特性

- ► One-body shape
- ► Zero backlash
- ► Resisting acid and basic
- ► High insulation
- ► High deflection
- ► To suit of Encoder ENCODER
- ► Fixed mode: Set screw type

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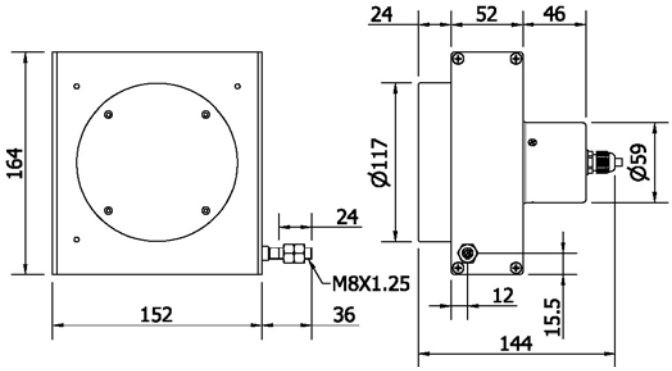
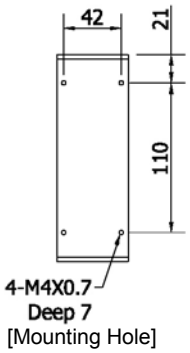
HONTKO

HLS-L

LINEAR WIRE ENCODER





ELECTRICAL SPEC.

Detection System	Incremental	
Output Wave	Square Wave	
Stroke (mm)	6000, 8000, 10000, 12000	
Standard Resolution (mm/pulse)	1, 0.5 mm/pulse	(others by request)
Accuracy	±0.05% FS, ±1 count	
Output Phase	AB phase or ABZ phase	
Electronics	NPN Voltage, NPN Open Collector, Push Pull or Line Driver	
Power Supply	DC 8~26V, DC 5V fixed	
Current Consumption	≤ 60 mA	
Output Capacity	Sync. Current: 20 mA, Residual Voltage: 0.5V or less	
Max. Response	10K Hz ~ 50K Hz	
Phase Different	A, B phase different 90°±45° (T/4±T/8), Z phase T±T/2	
Wave Form Rise / Fall	2 μs or less	
Polarity	Against Reverse Protection (not with DC 5V)	

MECHANICAL SPEC.

Wire Specification	Material: SUS304 with nylon coating Diameter: 1.0 mm; Breaking load: 60 Kg
Max. Travel Speed	1,000 mm / sec.
Vibration	10g (10±1,500 Hz)
Shock	20g per 11 ms
Cable	Ø5.4, 100 cm long
Weight	< 3,500g
Starting Torque on Spring	1,500 ~ 2,000 g

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	-10°C ~ 60°C, RH 35% ~ 90% (No Condensation)
Storage Temp.	-20°C ~ 80°C
Protection	IP64: Dust & Dripping Proof (only for encoder housing)
Life	Typical > 1 X 10^6 cycles

ORDERING INFORMATION

HLS-L - *Measuring Range* - *Resolution* - *Output Phase* - *Electronics* - *Supply Voltage*

Measuring Range
- **60** : 6000 mm
- **80** : 8000 mm
- **100** : 10000 mm
- **120** : 12000 mm

Resolution
- **1** : 1 mm
- **05** : 0.5 mm

Output Phase
- **Blank**: AB phase
- *__Z__: ABZ phase

Electronics
- **Blank**: NPN Voltage
- **C**: NPN Open-Collector
- **PP**: Push-Pull
- *__L__: Line Driver 5Vdc
- *__HL__: Line Driver 5~26Vdc

Supply Voltage
- **Blank**: 8~26Vdc
- **5V**: 5Vdc fixed

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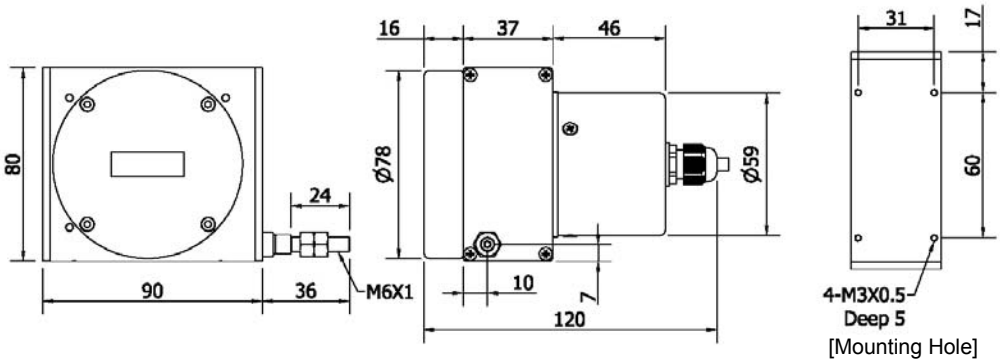
HONTKO

HLS-M

LINEAR WIRE ENCODER



ELECTRICAL SPEC.

Detection System	Incremental
Output Wave	Square Wave
Stroke (mm)	2000, 3000, 5000
Standard Resolution (mm/pulse)	0.5, 0.1, *0.05 mm/pulse (*0.05 mm/pulse only for stroke: 2000 mm)
Accuracy	±0.05% FS, ±1 count
Output Phase	AB phase or ABZ phase
Electronics	NPN Voltage, NPN Open Collector, Push Pull or Line Driver
Power Supply	DC 8~26V, DC 5V fixed
Current Consumption	≤ 60 mA
Output Capacity	Sync. Current: 20 mA, Residual Voltage: 0.5V or less
Max. Response	10K Hz ~ 50K Hz
Phase Different	A, B phase different 90°±45° (T/4±T/8), Z phase T±T/2
Wave Form Rise / Fall	2 μs or less
Polarity	Against Reverse Protection (not with DC 5V)

MECHANICAL SPEC.

Wire Specification	Material: SUS304 with nylon coating Diameter: 0.7 mm; Breaking load: 23 Kg
Max. Travel Speed	1,000 mm / sec.
Vibration	10g (10±1,500 Hz)
Shock	20g per 11 ms
Cable	Ø5.4, 100 cm long
Weight	< 1,000g
Starting Torque on Spring	Max. 900 g

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	-10°C ~ 60°C, RH 35% ~ 90% (No Condensation)
Storage Temp.	-20°C ~ 80°C
Protection	IP64: Dust & Dripping Proof (only for encoder housing)
Life	Typical > 1 X 10^6 cycles

ORDERING INFORMATION

HLS-M - *Measuring Range* - *Resolution* - *Output Phase* - *Electronics* - *Supply Voltage*

Measuring Range	*Resolution*	*Output Phase*	*Electronics*	*Supply Voltage*
20 : 2000 mm	**05** : 0.5 mm	**Blank**: AB phase	**Blank**: NPN Voltage	**Blank**: 8~26Vdc
30 : 3000 mm	**01** : 0.1 mm	*__Z__: ABZ phase	**C**: NPN Open-Collector	**5V**: 5Vdc fixed
50 : 5000 mm	**005** : 0.05 mm		**PP**: Push-Pull	
			*__L__: Line Driver 5Vdc	
			*__HL__: Line Driver 5~26Vdc	

*0.05 mm/pulse only for stroke: 2000 mm

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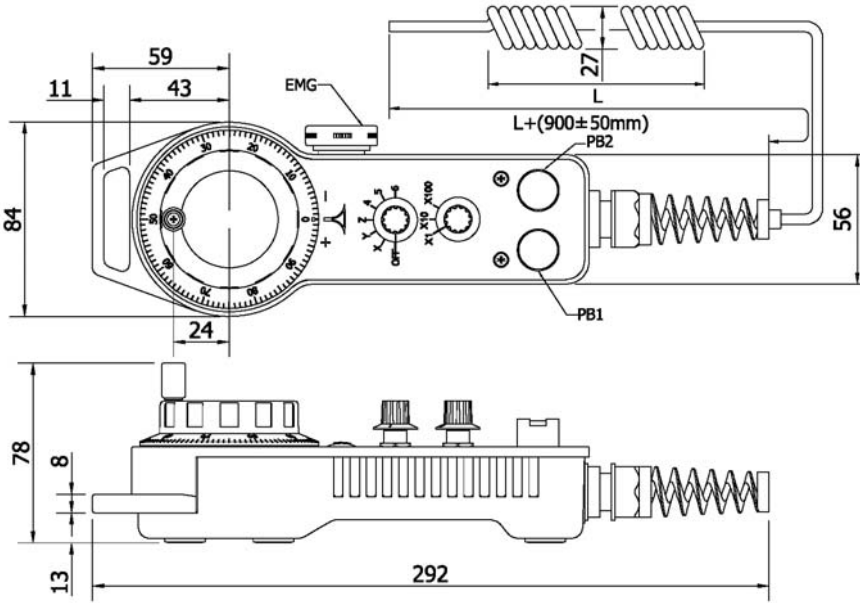
HONTKO

HPG-A

PENDANT HAND-HELD



ELECTRICAL SPEC. – *manual pulse generator*

Detection System	Incremental
Output Wave	Square Wave
Standard Number of Pulse Per Revolution	25, 100
Output Phase	AB phase
Electronics	NPN Voltage , NPN Open Collector or Line Driver
Power Supply	DC 8~26V, DC 5V fixed
Current Consumption	< 60 mA
Output Capacity	Sync. Current: 20 mA, Residual Voltage: 0.5V or less
Max. Response	10K Hz
Phase Different	A, B phase different 90°±45° (T/4±T/8)
Wave Form Rise / Fall	2 μs or less

MECHANICAL SPEC. – *manual pulse generator*

Shaft Loading	Axial:1 Kg, Radial: 2 Kg
Starting Torque (at 25°C)	260 g-cm
Max. Speed	500 rpm (Maximum); 200 rpm (Continuous)
X.Y.Z. Vibration	10 ~ 50 Hz / 1.5 mm X.Y.Z. 2hr)
Shock	50 g per 11 ms
Rotational Life	10^6 cycles (200 rpm)
Weight	≤ 1500 g

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	-10°C ~ 60°C, RH 35% ~ 90% (No Condensation)
Storage Temp.	-20°C ~ 80°C
Protection Grade	IP 64

SWITCHES SPEC. (max.)

Rotary Switch

Max. Voltage	28V AC/DC max.
Current	10 mA
Operating Torque	0.005 ~ 0.02 Nm

Push Button

Electric Rating	AC250V 0.3A, AC 125V 5A
	DC 250V 0.1A, DC24V 5A

Emergency Stop Switch

Contact Rating	With AC Load Resistance	AC250V 0.5A, AC125V 1.0A
	With DC Load Resistance	DC 30V 1.0A

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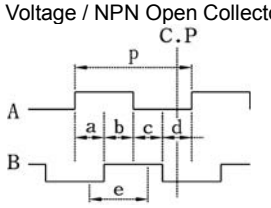
HPG-A

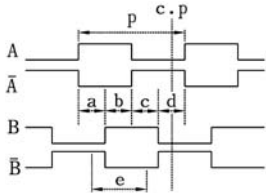
PENDANT HAND-HELD

OUTPUT WAVE FORM (Clockwise rotation is "CW Rotation" looked from the front side)

NPN Voltage / NPN Open Collector



Line Driver



- P = 1 P/R; a, b, c, d = P/4 ± P/6
- C.P= click point
  (For 25 P/R, C.P is at each position of a, b, c, d. 25 PPR a, b, c, d)
- Point e is recommended as the system switching timing. e

ELECTRICAL CONNECTION

	COLOR of WIRE	FUNCTION
DIAL BODY (encoder)	Brown	+V
	Red	0V
	Orange	CH A
	Pink	CH B
	Yellow	CH /A
	Green	CH /B

		POINT TO POINT
Axis Switch Selecting		OFF
	Light Green	X
	Blue	Y
	Purple	Z
	Gray	4
	Blue/White	5
	Black	6
Rate Switch Selecting	Brown/White	X 1
	Red/White	X 10
	Red/Black	X 100
	Orange/White	Switch Common
Emergency Stop	Gray/Black	Emergency Contact
	Black/White	Emergency Common
Push Button	Yellow/Black	Option PB1
	Green/White	Option PB2
	Green/Black	Option PB Common

BINARY CODE TYPE (PNP)

	Purple	Blue	Light Green
OFF	0	0	0
X	0	0	1
Y	0	1	0
Z	0	1	1
4	1	0	0
5	1	0	1
6	1	1	0

	Red / White	Brown /White
X 1	0	0
X 10	0	1
X 100	1	0

BINARY CODE TYPE (NPN)

	Purple	Blue	Light Green
OFF	1	1	1
X	1	1	0
Y	1	0	1
Z	1	0	0
4	0	1	1
5	0	1	0
6	0	0	1

	Red / White	Brown /White
X 1	1	1
X 10	1	0
X 100	0	1

ORDERING INFORMATION

HPG – A – [*Push Button Qty.*] [*Push Button Action*] [*Emergency Stop*] [*Switch Function*] [*Switch Axis*] [*Supporting Foot*] – [*PPR*] [*Electronics*] – [*Cable*]

Push Button Qty.
- **A:** With PB1
- **B:** With PB1&PB2

Push Button Action
- **1:** Alternate Normal Open 1A
- **2:** Alternate Normal Close 1B
- **3:** Momentary Normal Open 1A
- **4:** Momentary Normal Close 1B

[Standard] Alternate Action

Emergency Stop
- **E:** With E-Stop
- **O:** Without E-Stop

[Standard] Alternate Action

Switch Function
- **P:** Point to Point
- **N:** Binary Code *(PNP)*
- **A:** Binary Code *(NPN)*
- **O:** Without Switch

Switch Axis
- **6:** 6 Axes (OFF-X-Y-Z-4-5-6)

Supporting Foot
- **R:** Rubber Legs
- ***M:** Magnet

PPR
- **A:** 100 PPR
- **B:** 25 PPR

Electronics
- **V:** NPN Voltage 8~26Vdc
- **V5:** NPN Voltage 5Vdc
- **C:** NPN Open-Collector 5~26V
- **L:** Line Driver 5Vdc

Cable
- **S3:** 3 m
- ***S5:** 5 m

「*」 *OPTION*

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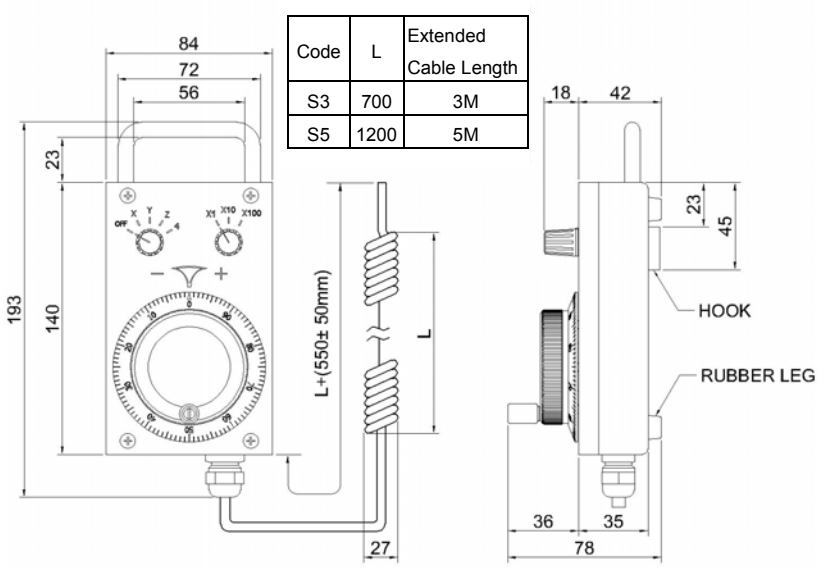
HONTKO

HPG-B

PENDANT HAND-HELD



Code	L	Extended Cable Length
S3	700	3M
S5	1200	5M

ELECTRICAL SPEC. – *manual pulse generator*

Detection System	Incremental
Output Wave	Square Wave
Standard Number of Pulse Per Revolution	25, 100
Output Phase	AB phase
Electronics	NPN Voltage , NPN Open Collector or Line Driver
Power Supply	DC 8~26V, DC 5V fixed
Current Consumption	< 60 mA
Output Capacity	Sync. Current: 20 mA, Residual Voltage: 0.5V or less
Max. Response	10K Hz
Phase Different	A, B phase different 90°±45° (T/4±T/8)
Wave Form Rise / Fall	2 μs or less

MECHANICAL SPEC. – *manual pulse generator*

Shaft Loading	Axial:1 Kg, Radial: 2 Kg
Starting Torque (at 25°C)	260 g-cm
Max. Speed	500 rpm (Maximum); 200 rpm (Continuous)
X.Y.Z. Vibration	10 ~ 50 Hz / 1.5 mm X.Y.Z. 2hr)
Shock	50 g per 11 ms
Rotational Life	10^6 cycles (200 rpm)
Weight	≤ 1500 g

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	-10°C ~ 60°C, RH 35% ~ 90% (No Condensation)
Storage Temp.	-20°C ~ 80°C
Protection Grade	IP 64

SWITCHES SPEC. (max.)

- Rotary Switch

Max. Voltage	DC 30V max.
Current	30 mA
Switch Cycle (Life)	> 25,000 cycles

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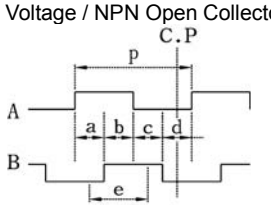
HPG-B

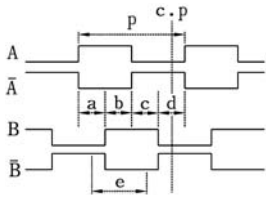
PENDANT HAND-HELD

OUTPUT WAVE FORM (Clockwise rotation is "CW Rotation" looked from the front side)

NPN Voltage / NPN Open Collector

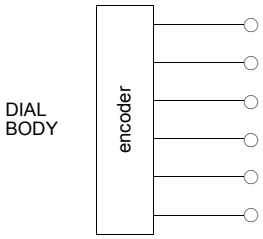


Line Driver

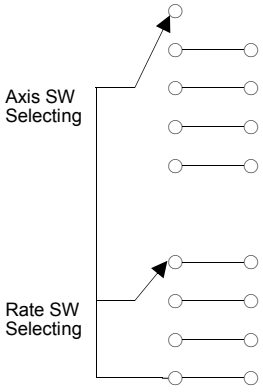


- P = 1 P/R; a, b, c, d = P/4 ± P/6
- C.P= click point
  (For 25 P/R, C.P is at each position of a, b, c, d. 25 PPR a, b, c, d)
- Point e is recommended as the system switching timing. e

ELECTRICAL CONNECTION



COLOR of WIRE	FUNCTION
Brown	+V
Red	0V
Orange	CH A
Pink	CH B
Yellow	CH /A
Green	CH /B



	POINT TO POINT
	OFF
Light Green	X
Blue	Y
Purple	Z
Gray	4
Brown/White	X 1
Red/White	X 10
Red/Black	X 100
Orange/White	Switch Common

GRAY CODE TYPE (negative logic)

	Light Green	Blue	Purple
OFF	1	1	1
X	0	0	1
Y	0	1	1
Z	1	0	1
4	1	1	0

	Brown /White	Red / White
X 1	0	0
X 10	0	1
X 100	1	0

ORDERING INFORMATION

HPG – B –

Switch Function	*Switch Axis*	–	*Pulse per Revolution*	*Electronics*	–	*Extended Cable Length*
P: Point to Point **G**: Gray Code	**4:** 4 Axes (OFF-X-Y-Z-4)		**A:** 100 PPR **B:** 25 PPR	**V:** NPN Voltage 8~26Vdc **V5:** NPN Voltage 5Vdc **C:** NPN Open-Collector 5~26V **L:** Line Driver 5Vdc		**S3:** 3 m **S5:** 5 m

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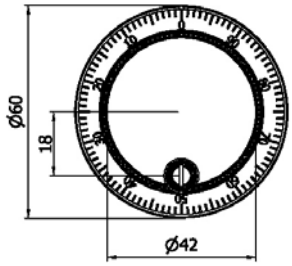
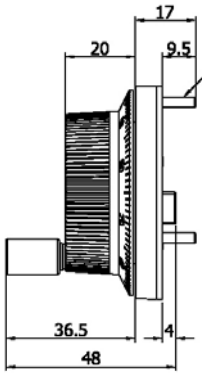
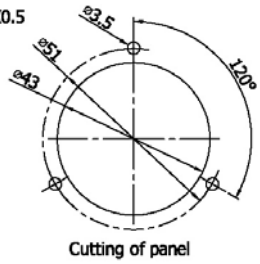
HPG-N2

MANUAL PULSE GENERATOR







ELECTRICAL SPEC.

Detection System	Incremental
Output Wave	Square Wave
Standard Number of Pulse Per Revolution	25, 100
Output Phase	AB phase
Electronics	NPN Voltage , NPN Open Collector or Line Driver
Power Supply	DC 8~26V, DC 5V fixed
Current Consumption	< 60 mA
Output Capacity	Sync. Current: 20 mA, Residual Voltage: 0.5V or less
Max. Response	5K Hz
Phase Different	A, B phase different 90°±45° (T/4±T/8)
Wave Form Rise / Fall	5 μs or less for NPN Voltage, NPN Open Collector 350 ns or less for Line Driver

MECHANICAL SPEC.

Starting Torque (at 25°C)	> 600 g
Max. Speed	600 rpm (Maximum); 200 rpm (Continuous)
X.Y.Z. Vibration	10 ~ 50 Hz / 1.5 mm X.Y.Z. 2hr)
Shock	50 g per 11 ms
Rotational Life	10^6 cycles (200 rpm)
Weight	≤ 250 g

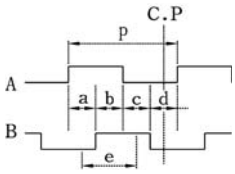
ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	-10°C ~ 60°C, RH 35% ~ 90% (No Condensation)
Storage Temp.	-20°C ~ 80°C

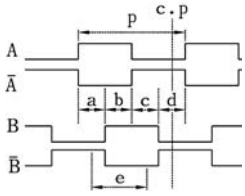
OUTPUT WAVE FORM

(Clockwise rotation is "CW Rotation" looked from the front side)

NPN Voltage / NPN Open Collector



Line Driver



- P = 1 P/R; a, b, c, d = P/4 ± P/6
- C.P= click point
  (For 25 P/R, C.P is at each position of a, b, c, d. 25 PPR a, b, c, d)
- Point e is recommended as the system switching timing. e

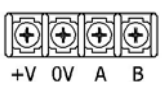
ORDERING INFORMATION

HPG – N2 – *Pulse per Revolution* **–** *Electronics & Supply Voltage*

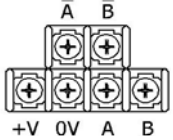
25: 25 PPR
100: 100 PPR

V: NPN Voltage 8~26Vdc
V5: NPN Voltage 5Vdc
C: NPN Open-Collector 5~26Vdc
L: Line Driver 5Vdc

ELECTRICAL CONNECTION



NPN Voltage
NPN Open Collector



Line Driver

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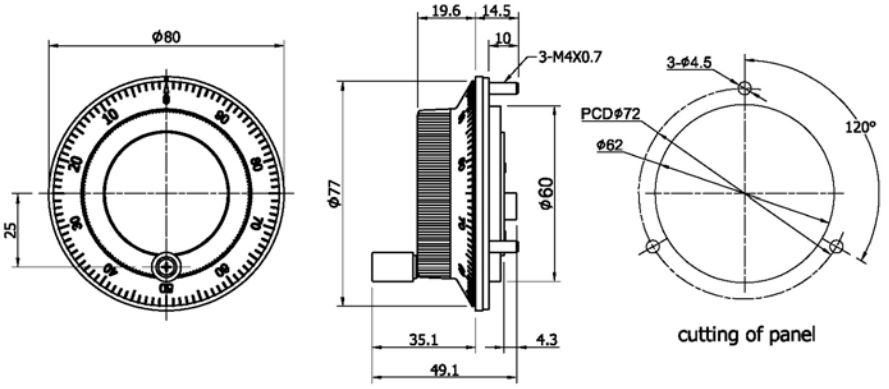
HPG-N4

MANUAL PULSE GENERATOR



ELECTRICAL SPEC.

Detection System	Incremental
Output Wave	Square Wave
Standard Number of Pulse Per Revolution	25, 100
Output Phase	AB phase
Electronics	NPN Voltage and Line Driver
Power Supply	DC 8~26V, DC 5V fixed
Current Consumption	< 60 mA
Output Capacity	Sync. Current: 20 mA, Residual Voltage: 0.5V or less
Max. Response	10K Hz
Phase Different	A, B phase different 90°±45° (T/4±T/8)
Wave Form Rise / Fall	2 μs or less

MECHANICAL SPEC.

Shaft Loading	Axial: 1 Kg, Radial: 2 Kg
Starting Torque (at 25°C)	> 600 g
Max. Speed	600 rpm (Maximum); 200 rpm (Continuous)
X.Y.Z. Vibration	10 ~ 50 Hz / 1.5 mm X.Y.Z. 2hr)
Shock	50 g per 11 ms
Rotational Life	10^6 cycles (200 rpm)
Weight	≤ 400 g

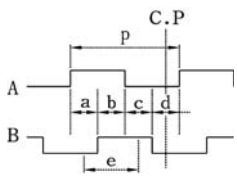
ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	-10°C ~ 60°C, RH 35% ~ 90% (No Condensation)
Storage Temp.	-20°C ~ 80°C

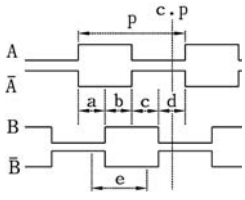
OUTPUT WAVE FORM

(Clockwise rotation is "CW Rotation" looked from the front side)

NPN Voltage / NPN Open Collector



Line Driver



- P = 1 P/R; a, b, c, d = P/4 ± P/6
- C.P= click point
  (For 25 P/R, C.P is at each position of a, b, c, d. 25 PPR a, b, c, d)
- Point e is recommended as the system switching timing. e

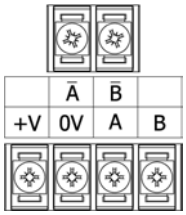
ORDERING INFORMATION

HPG – N4 – [*Pulse per Revolution*] **–** [*Electronics & Supply Voltage*]

25: 25 PPR
100: 100 PPR

V: NPN Voltage 8~26Vdc
V5: NPN Voltage 5Vdc
L: Line Driver 5Vdc

ELECTRICAL CONNECTION



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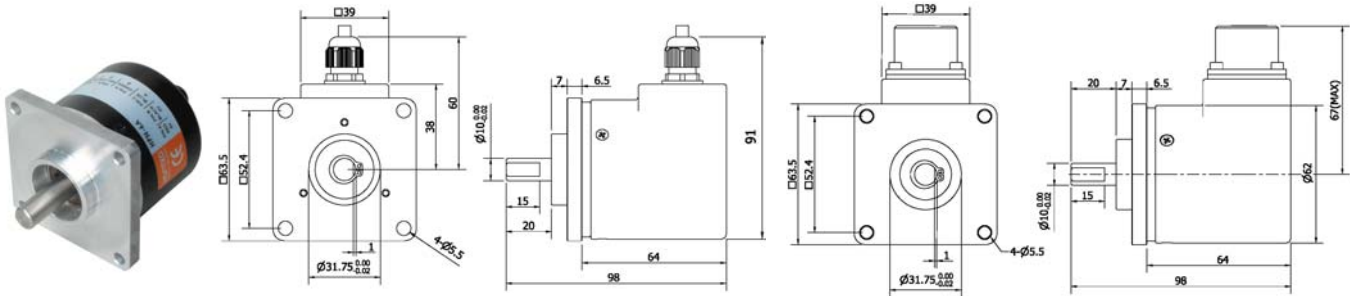
HPN-6A

HEAVY DUTY ROTARY ENCODER



ELECTRICAL SPEC.

Detection System	Incremental
Output Wave	Square Wave
Standard Number of Pulse Per Revolution	5, 10, 20, 30, 40, 50, 60, 80, 100, 120, 150, 180, 200, 250, 300, 360, 400, 500, 600, 720, 800, 900, 1000, 1024, *1800, 2000, *2048, 2500, *3000, *3600, *4000, *4096, *5000 * only with AB phase
Output Phase	AB phase or ABZ phase
Electronics	NPN Voltage, NPN Open Collector, Push Pull or Line Driver
Power Supply	DC 8~26V, DC 5V fixed
Current Consumption	≤ 60 mA
Output Capacity	Sync. Current: 20 mA, Residual Voltage: 0.5V or less
Max. Response	10K Hz ~ 100K Hz
Phase Different	A, B phase different 90°±45° (T/4±T/8), Z phase T±T/2
Wave Form Rise / Fall	2 μs or less
Polarity	Against Reverse Protection (not with DC 5V)

MECHANICAL SPEC.

Shaft Diameter	10 mm
Shaft Loading	(10 ~ 1000 PPR) Axial: 5 Kg, Radial: 10 Kg (over 1000 PPR) Axial: 3 Kg, Radial: 6 Kg
Starting Torque (at 25°C)	Without shaft seal: 260 gf-cm or less; With shaft seal: 400 gf-cm or less
Max. Speed	6,000 rpm; 2,000 rpm for IP 65
Vibration	10g (10±1,500 Hz)
Shock	20g per 11 ms
Cable	Ø5.4, 100 cm long
Weight	≤ 500g

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	-10°C ~ 60°C, RH 35% ~ 90% (No Condensation)
Storage Temp.	-20°C ~ 80°C
Protection	IP 64 (standard): dust & dripping proof; IP 65 (option): with shaft seal

ORDERING INFORMATION

HPN-6A - *Pulse per Revolution* - *Output Phase* - *Electronics* - *Supply Voltage* - *Connection* - *Protection*

Pulse per Revolution	*Output Phase*	*Electronics*	*Supply Voltage*	*Connection*	*Protection*
5, 10, 20, 30, 40, 50, 60, 80, 100, 120, 150, 180, 200, 250, 300, 360, 400, 500, 600, 720, 800, 900, 1000, 1024, *1800, 2000, *2048, 2500, *3000, *3600, *4000, *4096, *5000 P/R *only with AB phase	**2**: AB phase **3**: ABZ phase **4**: AB+Z high phase	**Blank**: NPN Voltage **C**: NPN Open-Collector **PP**: Push-Pull *__L__: Line Driver 5Vdc *__HL__: Line Driver 5~26Vdc	**Blank**: 8~26Vdc **5V**: 5Vdc fixed	**Blank**: Radial Cable *__R7__: Radial 7 pin *__R10__: Radial 10 pin	**Blank**: IP64 *__K1__: IP65

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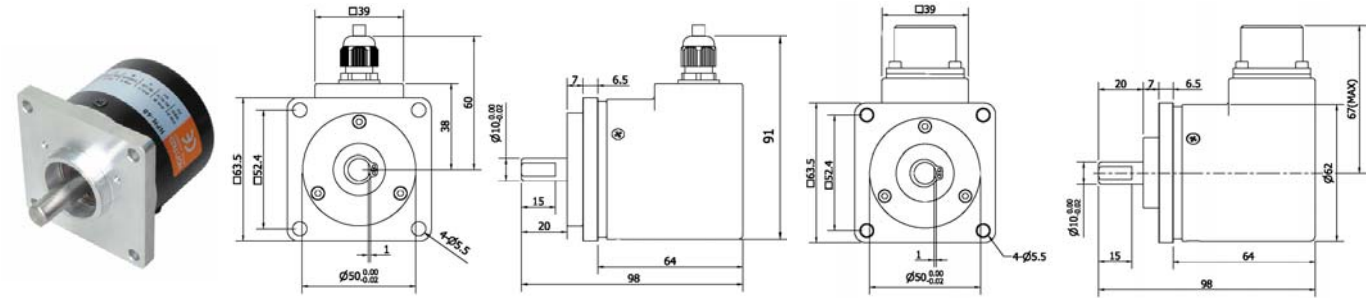
HONTKO

HPN-6B

HEAVY DUTY ROTARY ENCODER



ELECTRICAL SPEC.

Detection System	Incremental
Output Wave	Square Wave
Standard Number of Pulse Per Revolution	5, 10, 20, 30, 40, 50, 60, 80, 100, 120, 150, 180, 200, 250, 300, 360, 400, 500, 600, 720, 800, 900, 1000, 1024, *1800, 2000, *2048, 2500, *3000, *3600, *4000, *4096, *5000 * only with AB phase
Output Phase	AB phase or ABZ phase
Electronics	NPN Voltage, NPN Open Collector, Push Pull or Line Driver
Power Supply	DC 8~26V, DC 5V fixed
Current Consumption	≤ 60 mA
Output Capacity	Sync. Current: 20 mA, Residual Voltage: 0.5V or less
Max. Response	10K Hz ~ 100K Hz
Phase Different	A, B phase different 90°±45° (T/4±T/8), Z phase T±T/2
Wave Form Rise / Fall	2 μs or less
Polarity	Against Reverse Protection (not with DC 5V)

MECHANICAL SPEC.

Shaft Diameter	10 mm
Shaft Loading	(10 ~ 1000 PPR) Axial: 5 Kg, Radial: 10 Kg (over 1000 PPR) Axial: 3 Kg, Radial: 6 Kg
Starting Torque (at 25°C)	Without shaft seal: 260 gf-cm or less; With shaft seal: 400 gf-cm or less
Max. Speed	6,000 rpm; 2,000 rpm for IP 65
Vibration	10g (10±1,500 Hz)
Shock	20g per 11 ms
Cable	Ø5.4, 100 cm long
Weight	≤ 500g

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	-10°C ~ 60°C, RH 35% ~ 90% (No Condensation)
Storage Temp.	-20°C ~ 80°C
Protection	IP 64 (standard): dust & dripping proof; IP 65 (option): with shaft seal

ORDERING INFORMATION

HPN-6B - *Pulse per Revolution* - *Output Phase* - *Electronics* - *Supply Voltage* - *Connection* - *Protection*

Pulse per Revolution	*Output Phase*	*Electronics*	*Supply Voltage*	*Connection*	*Protection*
5, 10, 20, 30, 40, 50, 60, 80, 100, 120, 150, 180, 200, 250, 300, 360, 400, 500, 600, 720, 800, 900, 1000, 1024, *1800, 2000, *2048, 2500, *3000, *3600, *4000, *4096, *5000 P/R *only with AB phase	**2**: AB phase **3**: ABZ phase **4**: AB+Z high phase	**Blank**: NPN Voltage **C**: NPN Open-Collector **PP**: Push-Pull *__L__: Line Driver 5Vdc *__HL__: Line Driver 5~26Vdc	**Blank**: 8~26Vdc **5V**: 5Vdc fixed	**Blank**: Radial Cable *__R7__: Radial 7 pin *__R10__: Radial 10 pin	**Blank**: IP64 *__K1__: IP65

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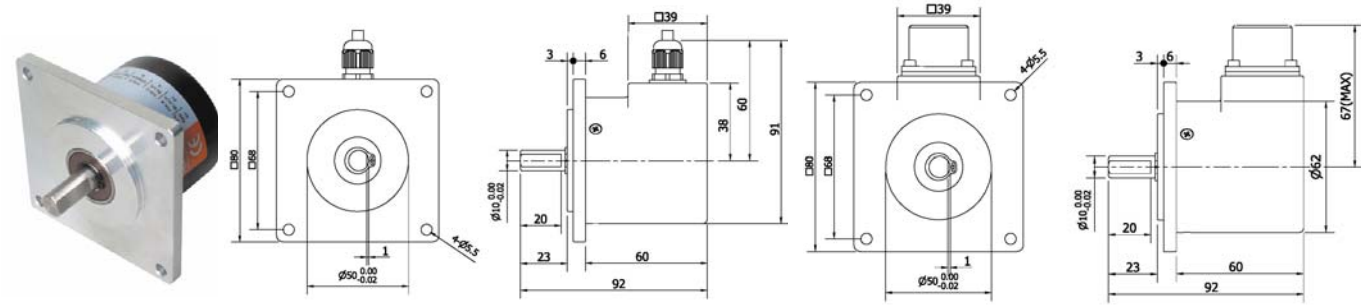
HPN-6C

HEAVY DUTY ROTARY ENCODER



cable output

connector output

ELECTRICAL SPEC.

Detection System	Incremental
Output Wave	Square Wave
Standard Number of Pulse Per Revolution	5, 10, 20, 30, 40, 50, 60, 80, 100, 120, 150, 180, 200, 250, 300, 360, 400, 500, 600, 720, 800, 900, 1000, 1024, *1800, 2000, *2048, 2500, *3000, *3600, *4000, *4096, *5000 * only with AB phase
Output Phase	AB phase or ABZ phase
Electronics	NPN Voltage, NPN Open Collector, Push Pull or Line Driver
Power Supply	DC 8~26V, DC 5V fixed
Current Consumption	≤ 60 mA
Output Capacity	Sync. Current: 20 mA, Residual Voltage: 0.5V or less
Max. Response	10K Hz ~ 100K Hz
Phase Different	A, B phase different 90°±45° (T/4±T/8), Z phase T±T/2
Wave Form Rise / Fall	2 μs or less
Polarity	Against Reverse Protection (not with DC 5V)

MECHANICAL SPEC.

Shaft Diameter	10 mm
Shaft Loading	(10 ~ 1000 PPR) Axial: 5 Kg, Radial: 10 Kg (over 1000 PPR) Axial: 3 Kg, Radial: 6 Kg
Starting Torque (at 25°C)	260 gf-cm or less
Max. Speed	6,000 rpm
Vibration	10g (10±1,500 Hz)
Shock	20g per 11 ms
Cable	Ø5.4, 100 cm long
Weight	≤ 550g

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	-10°C ~ 60°C, RH 35% ~ 90% (No Condensation)
Storage Temp.	-20°C ~ 80°C
Protection	IP 64: dust & dripping proof

ORDERING INFORMATION

HPN-6C - *Pulse per Revolution* - *Output Phase* - *Electronics* - *Supply Voltage* - *Connection*

Pulse per Revolution	*Output Phase*	*Electronics*	*Supply Voltage*	*Connection*
5, 10, 20, 30, 40, 50, 60, 80, 100, 120, 150, 180, 200, 250, 300, 360, 400, 500, 600, 720, 800, 900, 1000, 1024, *1800, 2000, *2048, 2500, *3000, *3600, *4000, *4096, *5000 P/R *only with AB phase	**2**: AB phase **3**: ABZ phase **4**: AB+Z high phase	**Blank**: NPN Voltage **C**: NPN Open-Collector **PP**: Push-Pull *__L__: Line Driver 5Vdc *__HL__: Line Driver 5~26Vdc	**Blank**: 8~26Vdc **5V**: 5Vdc fixed	**Blank**: Radial Cable *__R7__: Radial 7 pin *__R10__: Radial 10 pin

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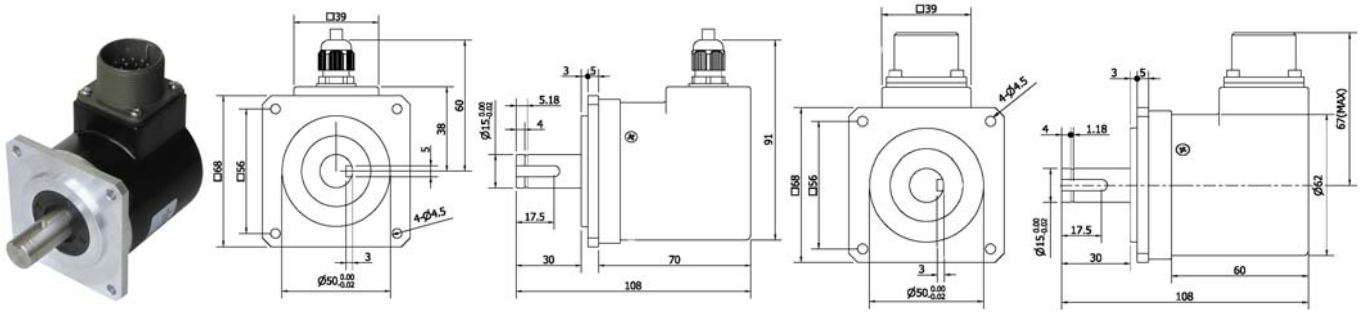
HONTKO

HPN-6D

HEAVY DUTY ROTARY ENCODER



ELECTRICAL SPEC.

Detection System	Incremental
Output Wave	Square Wave
Standard Number of Pulse Per Revolution	5, 10, 20, 30, 40, 50, 60, 80, 100, 120, 150, 180, 200, 250, 300, 360, 400, 500, 600, 720, 800, 900, 1000, 1024, *1800, 2000, *2048, 2500, *3000, *3600, *4000, *4096, *5000 * only with AB phase
Output Phase	AB phase or ABZ phase
Electronics	NPN Voltage, NPN Open Collector, Push Pull or Line Driver
Power Supply	DC 8~26V, DC 5V fixed
Current Consumption	≤ 60 mA
Output Capacity	Sync. Current: 20 mA, Residual Voltage: 0.5V or less
Max. Response	10K Hz ~ 100K Hz
Phase Different	A, B phase different 90°±45° (T/4±T/8), Z phase T±T/2
Wave Form Rise / Fall	2 μs or less
Polarity	Against Reverse Protection (not with DC 5V)

MECHANICAL SPEC.

Shaft Diameter	15 mm with keyway
Shaft Loading	(10 ~ 1000 PPR) Axial: 5 Kg, Radial: 10 Kg (over 1000 PPR) Axial: 3 Kg, Radial: 6 Kg
Starting Torque (at 25°C)	With shaft seal: 600 gf-cm or less
Max. Speed	2,000 rpm for IP 65
Vibration	10g (10±1,500 Hz)
Shock	20g per 11 ms
Cable	Ø5.4, 100 cm long
Weight	≤ 600g

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	-10°C ~ 60°C, RH 35% ~ 90% (No Condensation)
Storage Temp.	-20°C ~ 80°C
Protection	IP 65: with shaft seal

ORDERING INFORMATION

*Recommended the Coupling 建議使用連軸器型號：HC-42-15KX15K

HPN-6D - *Pulse per Revolution* - *Output Phase* - *Electronics* - *Supply Voltage* - *Connection*

Pulse per Revolution	*Output Phase*	*Electronics*	*Supply Voltage*	*Connection*
5, 10, 20, 30, 40, 50, 60, 80, 100, 120, 150, 180, 200, 250, 300, 360, 400, 500, 600, 720, 800, 900, 1000, 1024, *1800, 2000, *2048, 2500, *3000, *3600, *4000, *4096, *5000 P/R *only with AB phase	**2**: AB phase **3**: ABZ phase 4: AB+Z high phase	**Blank**: NPN Voltage **C**: NPN Open-Collector **PP**: Push-Pull *__L__: Line Driver 5Vdc *__HL__: Line Driver 5~26Vdc	**Blank**: 8~26Vdc **5V**: 5Vdc fixed	**Blank**: Radial Cable *__R7__: Radial 7 pin *__R10__: Radial 10 pin *__R17__: Radial 17 pin

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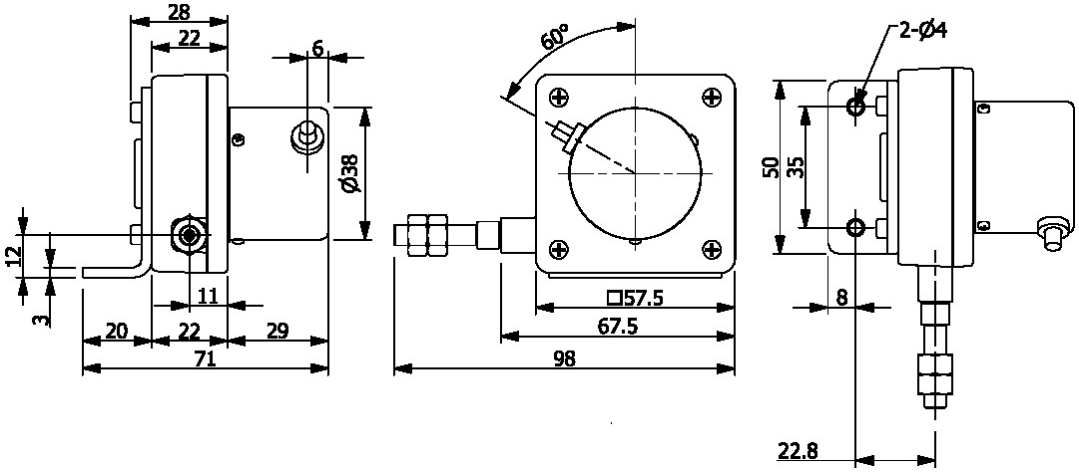
HPS-A-10-R

DISPLACEMENT SENSOR

LINEAR WIRE POTENTIOMTER

DIMENSION



ELECTRICAL SPEC.

Full Stroke (mm)	1000
Sensor	Wire-wound and hybrid potentiometer
Output Signal Mode	Resistance 5K ohm (Potentiometer)
Resolution	Essentially infinite
Linearity	±0.3% FS
Repeatability	±0.05% FS
Output Resistance	5K ohm ± 10% FS
Power Rating (watts)	2 W at 40℃
Recommended Input Voltage	30V (AC/DC) max., best voltage at 5 ~ 10 VAC/VDC

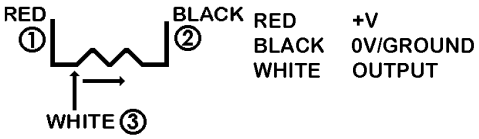
MECHANICAL SPEC.

Wire Specification	Material: SUS304 with nylon coating; Diameter: 0.6 mm; Breaking load: 16 Kg
Case Material	ABS
Mounting Bracket Material	Iron
Max. Travel Speed	500 mm / sec.
Vibration	10 Hz to 2000 Hz / 1.5 mm X.Y. Z. 2Hr
Cable	Ø4.2, 50 cm long
Weight	< 600 g
Starting Torque on Spring	< 400 g

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	-20°C ~ 70°C RH35% ~ 90% (No Condensation)
Storage Temp.	-20°C ~ 80°C
Protection	IP50: Dust Proof (only for potentiometer housing)

Electrical Connection



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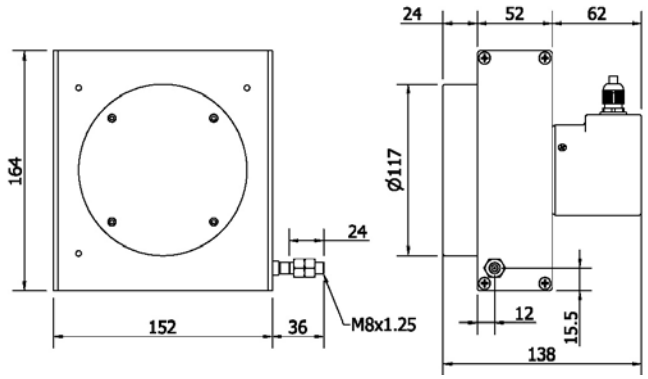
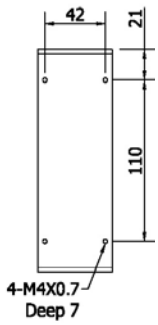
HPS-L1-R

LINEAR WIRE POTENTIOMETER

- *PRECISION ELECTRIC RESISTANCE SIGNAL OUTPUT*
- *SUITABLE FOR LONG MEASUREMENT RANGE*





[Mounting Hole]

ELECTRICAL SPEC.

Full Stroke (mm)	3000, 4000, 5000, 6000, 8000
Sensor	Wire-wound and hybrid potentiometer
Output Signal Mode	Resistance (Potentiometer)
Resolution	Essentially infinite
Linearity	[standard class] ±0.25% FS; [precision class ±0.1% FS (±1 count)
Repeatability	±0.02% FS
Output Resistance	[standard class] 5K ohm ± 10% FS; [precision class] 5K ohm ± 5% FS
Power Rating (watts)	2 W at 40℃
Recommended Input Voltage	30V (AC/DC) max., best voltage at 5 ~ 10 VAC/VDC

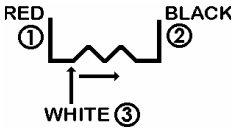
MECHANICAL SPEC.

Wire Specification	Diameter: 1.0 mm SUS304 with nylon coating
Max. Travel Speed	600 mm / sec.
Vibration	10 Hz to 2000 Hz, 10 g
Cable	Ø5.4, 100 cm long
Weight	< 3,500 g
Starting Torque on Spring	≤ 2,200 g

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	-20°C ~ 70°C
Storage Temp.	-20°C ~ 80°C
Protection	IP64: Dust & Dripping Proof (only for potentiometer housing)

Electrical Connection



RED	+V
BLACK	0V/GROUND
WHITE	OUTPUT

ORDERING INFORMATION

HPS - L1 - [*Measuring Range*] - [*Signal Mode*] - [*Life*]

Measuring Range

30 : 3000 mm
40 : 4000 mm
50 : 5000 mm
60 : 6000 mm
80 : 8000 mm

Signal Mode

R: Resistance 5K ohm

Life

Blank: 1 X 10^6 cycles, linearity 0.25% FS
*__F__: 5 X 10^6 cycles, linearity 0.1% FS
*__F25__: 5 X 10^6 cycles, linearity 0.25% FS

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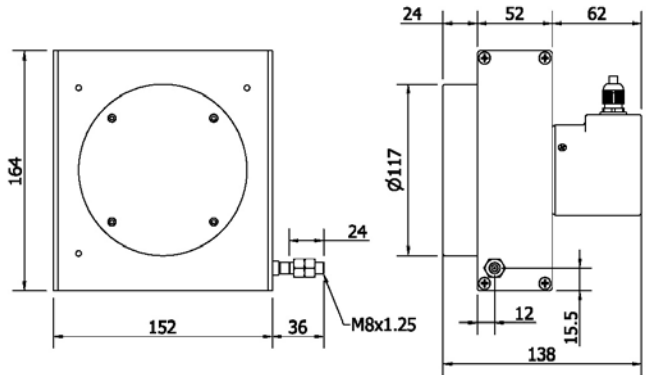
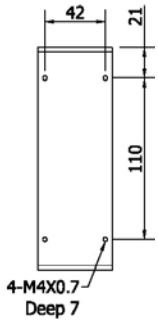
HPS-L1-V

LINEAR WIRE POTENTIOMETER

- *PRECISION ELECTRIC 0-5V and 0-10V SIGNAL OUTPUT*
- *SUITABLE FOR LONG MEASUREMENT RANGE*





[Mounting Hole]

ELECTRICAL SPEC.

Full Stroke (mm)	3000, 4000, 5000, 6000, 8000
Sensor	Wire-wound and hybrid potentiometer
Output Signal Mode	0-5Vdc or 0-10Vdc
Resolution	Essentially infinite
Linearity	[standard class] ±0.3% FS; [precision class] ±0.15% FS (±1 count)
Repeatability	±0.05% FS
Input Power	10-30Vdc for 0-5V output; 15-30Vdc for 0-10V output
Input Current	10 mA max.

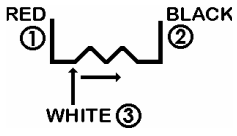
MECHANICAL SPEC.

Wire Specification	Diameter: 1.0 mm SUS304 with nylon coating
Max. Travel Speed	600 mm / sec.
Vibration	10 Hz to 2000 Hz, 10 g
Cable	Ø5.4, 100 cm long
Weight	< 3,500 g
Starting Torque on Spring	≤ 2,200 g

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	0°C ~ 70°C
Storage Temp.	-20°C ~ 80°C
Protection	IP64: Dust & Dripping Proof (only for potentiometer housing)

Electrical Connection



RED	+V
BLACK	0V/GROUND
WHITE	OUTPUT

ORDERING INFORMATION

HPS - L1 - [Measuring Range] - [Signal Mode] - [Life]

Measuring Range

30 : 3000 mm
40 : 4000 mm
50 : 5000 mm
60 : 6000 mm
80 : 8000 mm

Signal Mode

*__5V__: 0-5Vdc
*__10V__: 0-10Vdc

Life

Blank: 1 X 10^6 cycles, linearity 0.3% FS
*__F__: 5 X 10^6 cycles, linearity 0.15% FS
*__F25__: 5 X 10^6 cycles, linearity 0.3% FS

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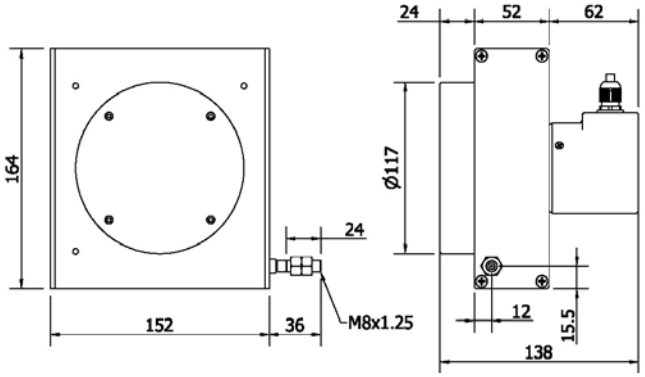
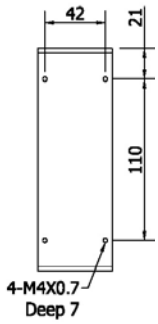
HPS-L1-MA

LINEAR WIRE POTENTIOMETER

- *PRECISION ANALOG CURRENT 4-20ma SIGNAL OUTPUT*
- *SUITABLE FOR LONG MEASUREMENT RANGE*





[Mounting Hole]

ELECTRICAL SPEC.

Full Stroke (mm)	3000, 4000, 5000, 6000, 8000
Sensor	Wire-wound and hybrid potentiometer
Output Signal Mode	4-20 mA (2 wires)
Resolution	Essentially infinite
Linearity	[standard class] ±0.3% FS; [precision class] ±0.15% FS (±1 count)
Repeatability	±0.05% FS
Input Power	15-24Vdc±20%
Input Current	20 mA max.
Loop Resistance (load)	(loop supply voltage -12) / 0.02 max.
Zero and Span Adjustment	± 5%

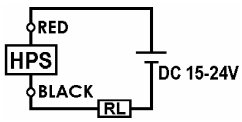
MECHANICAL SPEC.

Wire Specification	Diameter: 1.0 mm SUS304 with nylon coating
Max. Travel Speed	600 mm / sec.
Vibration	10 Hz to 2000 Hz, 10 g
Cable	Ø5.4, 100 cm long
Weight	< 3,500 g
Starting Torque on Spring	≤ 2,200 g

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	0°C ~ 70°C
Storage Temp.	-20°C ~ 80°C
Protection	IP64: Dust & Dripping Proof (only for potentiometer housing)

Electrical Connection



ORDERING INFORMATION

HPS - L1 - [*Measuring Range*] - [*Signal Mode*] - [*Life*]

Measuring Range

30 : 3000 mm
40 : 4000 mm
50 : 5000 mm
60 : 6000 mm
80 : 8000 mm

Signal Mode

*__420:__ 4-20mA

Life

Blank: 1 X 10^6 cycles, linearity 0.3% FS
*__F__: 5 X 10^6 cycles, linearity 0.15% FS
*__F25__: 5 X 10^6 cycles, linearity 0.3% FS

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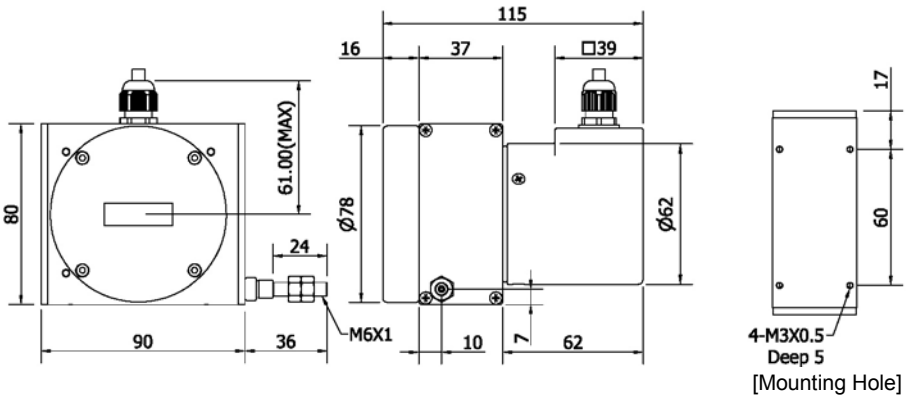
HPS-M1-R

LINEAR WIRE POTENTIOMETER

- *PRECISION ELECTRIC RESISTANCE SIGNAL OUTPUT*
- *SUITABLE FOR SHORT TO MEDIUM MEASUREMENT RANGE*



ELECTRICAL SPEC.

Full Stroke (mm)	500, 750, 1000, 1500, 2000, 3000, 4000
Sensor	Wire-wound and hybrid potentiometer
Output Signal Mode	Resistance (Potentiometer)
Resolution	Essentially infinite
Linearity	[standard class] ±0.25% FS; [precision class] ±0.1% FS (±1 count)
Repeatability	±0.02% FS
Output Resistance	[standard class] 5K ohm ± 10% FS; [precision class] 5K ohm ± 5% FS
Power Rating (watts)	[stroke 500 mm] 1 W at 40℃; [stroke ≥ 1000 mm] 2 W at 40℃
Recommended Input Voltage	30V (AC/DC) max., best voltage at 5 ~ 10 VAC/VDC

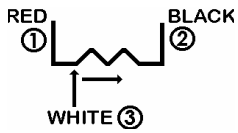
MECHANICAL SPEC.

Wire Specification	Diameter: 0.7 mm SUS304 with nylon coating
Max. Travel Speed	1,000 mm / sec.
Vibration	10 Hz to 2000 Hz, 10 g
Cabl	Ø5.4, 100 cm long, radial cable output
Weight	< 1,000 g
Starting Torque on Spring	[(Stroke ≤ 1000 mm) 600 g; [Stroke ≥ 1500 mm] 1000 g

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	-20°C ~ 70°C RH35% ~ 90% (No Condensation)
Storage Temp.	-20°C ~ 80°C
Protection	IP64: Dust & Dripping Proof (only for potentiometer housing)

Electrical Connection



RED	+V
BLACK	0V/GROUND
WHITE	OUTPUT

ORDERING INFORMATION

HPS - M1 - [Measuring Range] - [Signal Mode] - [Potentiometer Life and Linearity]

Measuring Range

05 : 500 mm	**15** : 1500 mm
075 : 750 mm	**20** : 2000 mm
10 : 1000 mm	**30** : 3000 mm
	40 : 4000 mm

Signal Mode

R: Resistance 5K ohm

Potentiometer Life and Linearity

Blank: 1 X 10^6 cycles, linearity 0.25% FS
*__F__: 5 X 10^6 cycles, linearity 0.1% FS
*__F25__: 5 X 10^6 cycles, linearity 0.25% FS

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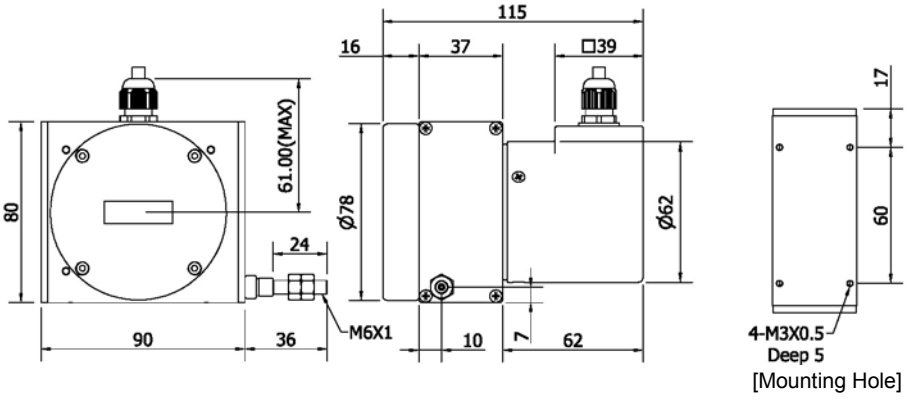
HPS-M1-V

LINEAR WIRE POTENTIOMETER

- *PRECISION ELECTRIC 0-5V and 0-10V SIGNAL OUTPUT*
- *SUITABLE FOR SHORT TO MEDIUM MEASUREMENT RANGE*



ELECTRICAL SPEC.

Full Stroke (mm)	500, 750, 1000, 1500, 2000, 3000, 4000
Sensor	Wire-wound and hybrid potentiometer
Output Signal Mode	0-5Vdc or 0-10Vdc
Resolution	Essentially infinite
Linearity	[standard class] ±0.3% FS; [precision class] ±0.15% FS (±1 count)
Repeatability	±0.05% FS
Input Power	10-30Vdc for 0-5V output; 15-30Vdc for 0-10V output
Input Current	10 mA max.

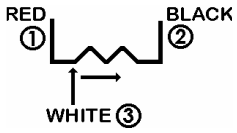
MECHANICAL SPEC.

Wire Specification	Diameter: 0.7 mm SUS304 with nylon coating
Max. Travel Speed	1,000 mm / sec.
Vibration	10 Hz to 2000 Hz, 10 g
Cable	Ø5.4, 100 cm long, radial cable output
Weight	< 1,000 g
Starting Torque on Spring	[Stroke ≤ 1000 mm] 600 g; [Stroke ≥ 1500 mm] 1000 g

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	0°C ~ 70°C
Storage Temp.	-20°C ~ 80°C
Protection	IP64: Dust & Dripping Proof (only for potentiometer housing)

Electrical Connection



RED	+V
BLACK	0V/GROUND
WHITE	OUTPUT

ORDERING INFORMATION

HPS - M1 - [Measuring Range] - [Signal Mode] - [Life]

Measuring Range

05 : 500 mm	**15** : 1500 mm
075 : 750 mm	**20** : 2000 mm
10 : 1000 mm	**30** : 3000 mm
	40 : 4000 mm

Signal Mode

- *__5V__: 0-5Vdc
- *__10V__: 0-10Vdc

Life

- **Blank**: 1 X 10^6 cycles, linearity 0.3% FS
- *__F__: 5 X 10^6 cycles, linearity 0.15% FS
- *__F25__: 5 X 10^6 cycles, linearity 0.3% FS

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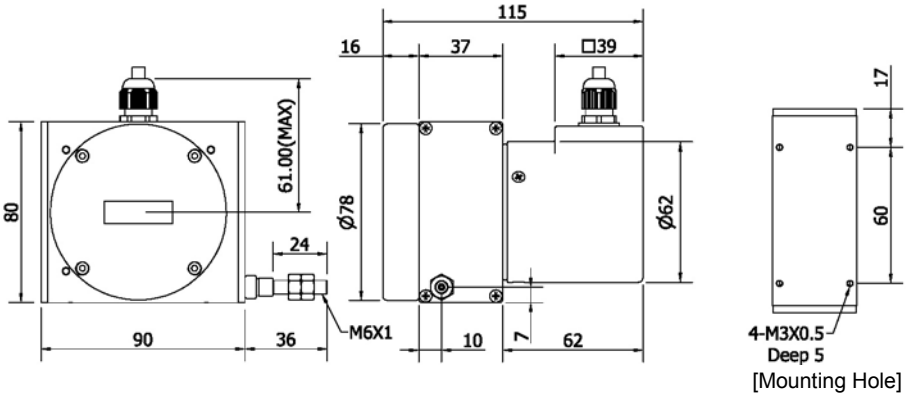
HPS-M1-MA

LINEAR WIRE POTENTIOMETER

- *PRECISION ANALOG CURRENT 4-20mA SIGNAL OUTPUT*
- *SUITABLE FOR SHORT TO MEDIUM MEASUREMENT RANGE*



ELECTRICAL SPEC.

Full Stroke (mm)	500, 750, 1000, 1500, 2000, 3000, 4000
Sensor	Wire-wound and hybrid potentiometer
Output Signal Mode	4-20 mA (2 wires)
Resolution	Essentially infinite
Linearity	[standard class] ±0.3% FS; [precision class] ±0.15% FS (±1 count)
Repeatability	±0.05% FS
Input Power	15-24Vdc±20%
Input Current	20 mA max.
Loop Resistance (load)	(loop supply voltage -12) / 0.02 max.
Zero and Span Adjustment	±5%

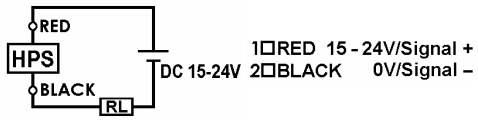
MECHANICAL SPEC.

Wire Specification	Diameter: 0.7 mm SUS304 with nylon coating
Max. Travel Speed	1,000 mm / sec.
Vibration	10 Hz to 2000 Hz, 10 g
Cable	Ø5.4, 100 cm long
Weight	< 1,000 g
Starting Torque on Spring	[Stroke ≤ 1000 mm] 600 g; [Stroke ≥ 1500 mm] 1000 g

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	0°C ~ 70°C
Storage Temp.	-20°C ~ 80°C
Protection	IP64: Dust & Dripping Proof (only for potentiometer housing)

Electrical Connection



ORDERING INFORMATION

HPS - M1 - [Measuring Range] - [Signal Mode] - [Life]

Measuring Range

05 : 500 mm	**15** : 1500 mm
075 : 750 mm	**20** : 2000 mm
10 : 1000 mm	**30** : 3000 mm
	40 : 4000 mm

Signal Mode

- *__420:__ 4-20mA

Life

- **Blank**: 1 X 10^6 cycles, linearity 0.3% FS
- *__F__: 5 X 10^6 cycles, linearity 0.15% FS
- *__F25__: 5 X 10^6 cycles, linearity 0.3% FS

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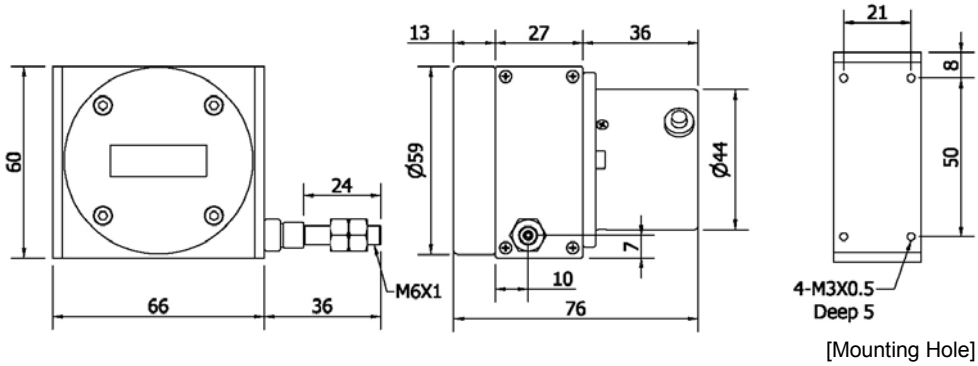
HPS-S-R

LINEAR WIRE POTENTIOMETER

- *PRECISION ELECTRIC RESISTANCE SIGNAL OUTPUT*
- *SUITABLE FOR SHORT MEASUREMENT RANGE*



[Mounting Hole]

ELECTRICAL SPEC.

Full Stroke (mm)	500, 1000
Sensor	Wire-wound and hybrid potentiometer
Output Signal Mode	Resistance (Potentiometer)
Resolution	Essentially infinite
Linearity	[standard class] ±0.25% FS; [precision class] ±0.1% FS (±1 count)
Repeatability	±0.02% FS
Output Resistance	[standard class] 5K ohm ± 10% FS; [precision class] 5K ohm ± 5% FS
Power Rating (watts)	[stroke 500 mm[1 W at 40℃; [stroke 1000 mm[2 W at 40℃
Recommended Input Voltage	30V (AC/DC) max., best voltage at 5 ~ 10 VAC/VDC

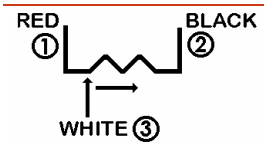
MECHANICAL SPEC.

Wire Specification	Material: SUS304 with nylon coating; Diameter: 0.6 mm; Breaking load: 16 Kg
Max. Travel Speed	500 mm / sec.
Vibration	10 Hz to 2000 Hz, 10 g
Cable	Ø4.2, 50 cm long
Weight	< 600 g
Starting Torque on Spring	< 600 g

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	-20°C ~ 70°C RH35% ~ 90% (No Condensation)
Storage Temp.	-20°C ~ 80°C
Protection	IP50: Dust Proof (only for potentiometer housing)

Electrical Connection



RED	+V
BLACK	0V/GROUND
WHITE	OUTPUT

ORDERING INFORMATION

HPS-S - *Measuring Range* - *Signal Mode* - *Life*

Measuring Range
- **05** : 500 mm
- **10** : 1000 mm

Signal Mode
- **R**: Resistance 5K ohm

Life
- **Blank**: 1 X 10^6 cycles, linearity 0.25% FS
- *__F__: 5 X 10^6 cycles, linearity 0.1% FS
- *__F25__: 5 X 10^6 cycles, linearity 0.25% FS

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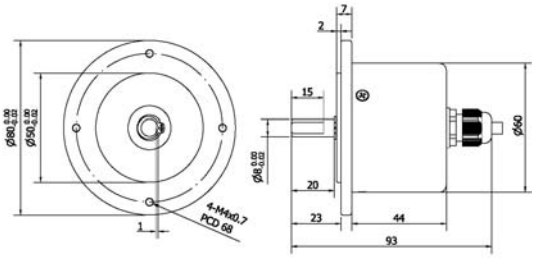
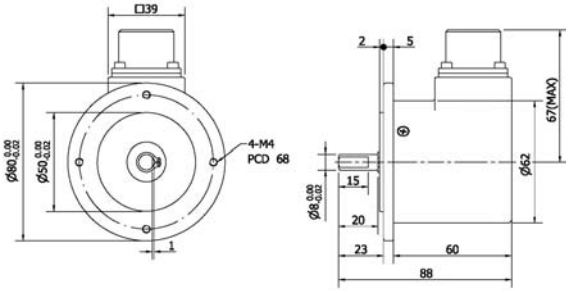
HSK

HEAVY DUTY ROTARY ENCODER



cable output



connector output

ELECTRICAL SPEC.

Detection System	Incremental
Output Wave	Square Wave
Standard Number of Pulse Per Revolution	5, 10, 20, 30, 40, 50, 60, 80, 100, 120, 150, 180, 200, 250, 300, 360, 400, 500, 600, 720, 800, 900, 1000, 1024, *1800, 2000, *2048, 2500, *3000, *3600, *4000, *4096, *5000 * only with AB phase
Output Phase	AB phase or ABZ phase
Electronics	NPN Voltage, NPN Open Collector, Push Pull or Line Driver
Power Supply	DC 8~26V, DC 5V fixed
Current Consumption	≤ 60 mA
Output Capacity	Sync. Current: 20 mA, Residual Voltage: 0.5V or less
Max. Response	10K Hz ~ 100K Hz
Phase Different	A, B phase different 90°±45° (T/4±T/8), Z phase T±T/2
Wave Form Rise / Fall	2 μs or less
Polarity	Against Reverse Protection (not with DC 5V)

MECHANICAL SPEC.

Shaft Diameter	8 mm
Shaft Loading	(10 ~ 1000 PPR) Axial: 4 Kg, Radial: 8 Kg (over 1000 PPR) Axial: 2 Kg, Radial: 4 Kg
Starting Torque (at 25°C)	260 gf-cm or less
Max. Speed	6,000 rpm
Vibration	10g (10±1,500 Hz)
Shock	20g per 11 ms
Cable	Ø5.4, 100 cm long
Weight	≤ 420g

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	-10°C ~ 60°C, RH 35% ~ 90% (No Condensation)
Storage Temp.	-20°C ~ 80°C
Protection	IP 64: dust & dripping proof

ORDERING INFORMATION

HSK -	*Pulse per Revolution*	- *Output Phase*	- *Electronics*	- *Supply Voltage*	- *Connection*
	5, 10, 20, 30, 40, 50, 60, 80, 100, 120, 150, 180, 200, 250, 300, 360, 400, 500, 600, 720, 800, 900, 1000, 1024, *1800, 2000, *2048, 2500, *3000, *3600, *4000, *4096, *5000 P/R *only with AB phase	**2**: AB phase **3**: ABZ phase **4**: AB+Z high phase	**Blank**: NPN Voltage **C**: NPN Open-Collector **PP**: Push-Pull *__L__: Line Driver 5Vdc *__HL__: Line Driver 5~26Vdc	**Blank**: 8~26Vdc **5V**: 5Vdc fixed	**Blank**: Axial Cable *__R7__: Radial 7 pin *__R10__: Radial 10 pin

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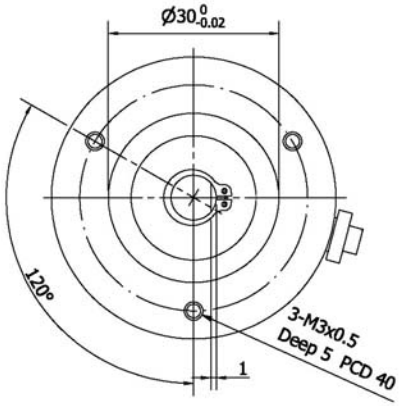
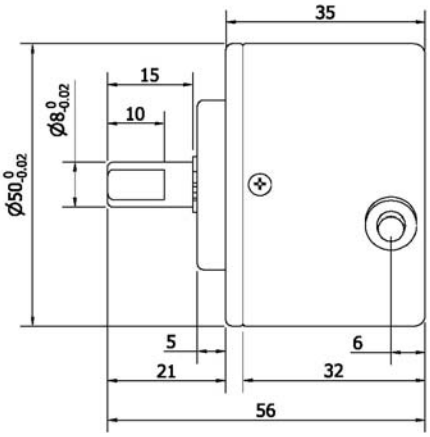
HTR-5B

ECONOMICAL & SMALL ROTARY ENCODER





ELECTRICAL SPEC.

Detection System	Incremental
Output Wave	Square Wave
Standard Number of Pulse Per Revolution	2, 5, 12, 10, 20, 30, 40, 50, 60, 80, 100, 120, 150, 160, 180, 200, 250, 300, 360, 400, 500, 600, 720, 800, 900, 1000, 1024, 1200, 1250, 1500, 1800, 2000, 2048, 2500
Output Phase	AB phase or ABZ phase
Electronics	NPN Voltage, NPN Open Collector, Push Pull or Line Driver
Power Supply	DC 8~26V, DC 5V fixed
Current Consumption	≤ 60 mA
Output Capacity	Sync. Current: 20 mA, Residual Voltage: 0.5V or less
Max. Response	10K Hz ~ 100K Hz
Phase Different	A, B phase different 90°±45° (T/4±T/8), Z phase T±T/2
Wave Form Rise / Fall	2 μs or less
Polarity	Against Reverse Protection (not with DC 5V)

MECHANICAL SPEC.

Shaft Diameter	8 mm
Shaft Loading	(10 ~ 400 PPR) Axial: 3 Kg, Radial: 5 Kg (over 400 PPR) Axial: 1 Kg, Radial: 2 Kg
Starting Torque (at 25°C)	40 gf-cm or less
Max. Speed	6,000 rpm
Vibration	10g (10±1,500 Hz)
Shock	20g per 11 ms
Cable	Ø4.5, 50 cm long
Weight	≤ 200g

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	0°C ~ 60°C, RH 35% ~ 90% (No Condensation)
Storage Temp.	-20°C ~ 80°C
Protection	IP50: Dust Proof

ORDERING INFORMATION

HTR-5B - *Pulse per Revolution* - *Output Phase* - *Electronics* - *Supply Voltage*

Pulse per Revolution	*Output Phase*	*Electronics*	*Supply Voltage*
2, 5, 12, 10, 20, 30, 40, 50, 60, 80, 100, 120, 150, 160, 180, 200, 250, 300, 360, 400, 500, 600, 720, 800, 900, 1000, 1024, 1200, 1250, 1500, 1800, 2000, 2048, 2500 P/R	**2**: AB phase **3**: ABZ phase **4**: AB+Z high phase	**Blank**: NPN Voltage **C**: NPN Open-Collector **PP**: Push-Pull *__L__: Line Driver 5Vdc *__HL__: Line Driver 8~26Vdc	**Blank**: 8~26Vdc **5V**: 5Vdc fixed

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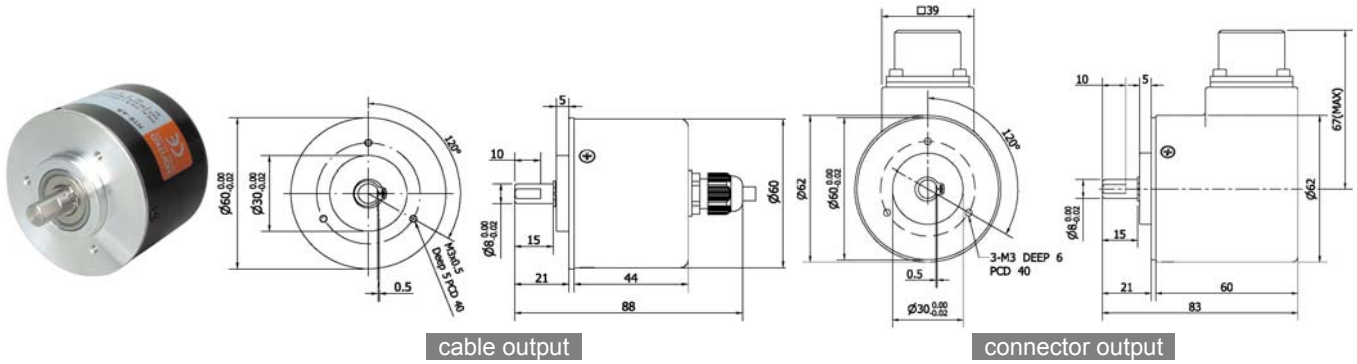
HTR-6B

HEAVY DUTY ROTARY ENCODER



ELECTRICAL SPEC.

Detection System	Incremental
Output Wave	Square Wave
Standard Number of Pulse Per Revolution	5, 10, 20, 30, 40, 50, 60, 80, 100, 120, 150, 180, 200, 250, 300, 360, 400, 500, 600, 720, 800, 900, 1000, 1024, 1800, 2000, 2048, 2500, *3000, *3600, *4000, *4096, *5000 * only with AB phase
Output Phase	AB phase or ABZ phase
Electronics	NPN Voltage, NPN Open Collector, Push Pull or Line Driver
Power Supply	DC 8~26V, DC 5V fixed
Current Consumption	≤ 60 mA
Output Capacity	Sync. Current: 20 mA, Residual Voltage: 0.5V or less
Max. Response	10K Hz ~ 100K Hz
Phase Different	A, B phase different 90°±45° (T/4±T/8), Z phase T±T/2
Wave Form Rise / Fall	2 μs or less
Polarity	Against Reverse Protection (not with DC 5V)

MECHANICAL SPEC.

Shaft Diameter	8 mm
Shaft Loading	(10 ~ 1000 PPR) Axial: 4 Kg, Radial: 8 Kg (over 1000 PPR) Axial: 2 Kg, Radial: 4 Kg
Starting Torque (at 25°C)	260 gf-cm or less
Max. Speed	6,000 rpm
Vibration	10g (10±1,500 Hz)
Shock	20g per 11 ms
Cable	Ø5.4, 100 cm long
Weight	≤ 350g

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	-10°C ~ 60°C, RH 35% ~ 90% (No Condensation)
Storage Temp.	-20°C ~ 80°C
Protection	IP 64: dust & dripping proof

ORDERING INFORMATION

HTR-6B - *Pulse per Revolution* - *Output Phase* - *Electronics* - *Supply Voltage* - *Connection*

Pulse per Revolution	*Output Phase*	*Electronics*	*Supply Voltage*	*Connection*
5, 10, 20, 30, 40, 50, 60, 80, 100, 120, 150, 180, 200, 250, 300, 360, 400, 500, 600, 720, 800, 900, 1000, 1024, 1800, 2000, 2048, 2500, *3000, *3600,*4000, *4096, *5000 *only with AB phase	**2**: AB phase **3**: ABZ phase **4**: AB+Z high phase	**Blank**: NPN Voltage **C**: NPN Open-Collector **PP**: Push-Pull *__L__: Line Driver 5Vdc *__HL__: Line Driver 8~26Vdc	**Blank**: 8~26Vdc **5V**: 5Vdc fixed	**Blank**: Axial Cable *__R7__: Radial 7 pin *__R10__: Radial 10 pin

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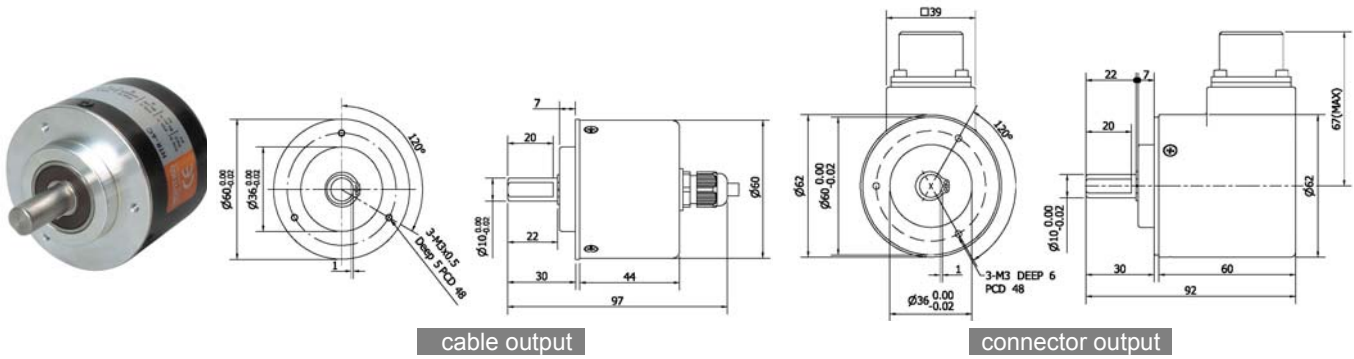
HTR-6C

HEAVY DUTY ROTARY ENCODER



ELECTRICAL SPEC.

Detection System	Incremental
Output Wave	Square Wave
Standard Number of Pulse Per Revolution	5, 10, 20, 30, 40, 50, 60, 80, 100, 120, 150, 180, 200, 250, 300, 360, 400, 500, 600, 720, 800, 900, 1000, 1024, *1800, 2000, *2048, 2500, *3000, *3600, *4000, *4096, *5000 * only with AB phase
Output Phase	AB phase or ABZ phase
Electronics	NPN Voltage, NPN Open Collector, Push Pull or Line Driver
Power Supply	DC 8~26V, DC 5V fixed
Current Consumption	≤ 60 mA
Output Capacity	Sync. Current: 20 mA, Residual Voltage: 0.5V or less
Max. Response	10K Hz ~ 100K Hz
Phase Different	A, B phase different 90°±45° (T/4±T/8), Z phase T±T/2
Wave Form Rise / Fall	2 μs or less
Polarity	Against Reverse Protection (not with DC 5V)

MECHANICAL SPEC.

Shaft Diameter	10 mm
Shaft Loading	(10 ~ 1000 PPR) Axial: 5 Kg, Radial: 10 Kg (over 1000 PPR) Axial: 3 Kg, Radial: 6 Kg
Starting Torque (at 25°C)	260 gf-cm or less
Max. Speed	6,000 rpm
Vibration	10g (10±1,500 Hz)
Shock	20g per 11 ms
Cable	Ø5.4, 100 cm long
Weight	≤ 350g

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	-10°C ~ 60°C, RH 35% ~ 90% (No Condensation)
Storage Temp.	-20°C ~ 80°C
Protection	IP 64: dust & dripping proof

ORDERING INFORMATION

HTR-6C - *Pulse per Revolution* - *Output Phase* - *Electronics* - *Supply Voltage* - *Connection*

Pulse per Revolution	*Output Phase*	*Electronics*	*Supply Voltage*	*Connection*
5, 10, 20, 30, 40, 50, 60, 80, 100, 120, 150, 180, 200, 250, 300, 360, 400, 500, 600, 720, 800, 900, 1000, 1024, *1800, 2000, *2048, 2500, *3000, *3600, *4000, *4096, *5000 P/R *only with AB phase	**2**: AB phase **3**: ABZ phase **4**: AB+Z high phase	**Blank**: NPN Voltage **C**: NPN Open-Collector **PP**: Push-Pull *__L__: Line Driver 5Vdc *__HL__: Line Driver 5~26Vdc	**Blank**: 8~26Vdc **5V**: 5Vdc fixed	**Blank**: Axial Cable *__R7__: Radial 7 pin *__R10__: Radial 10 pin

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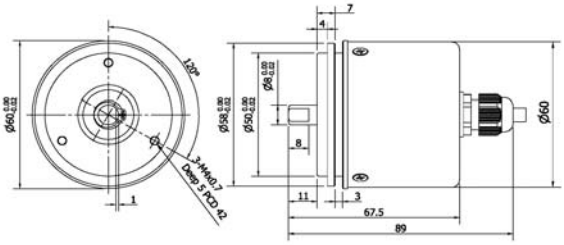
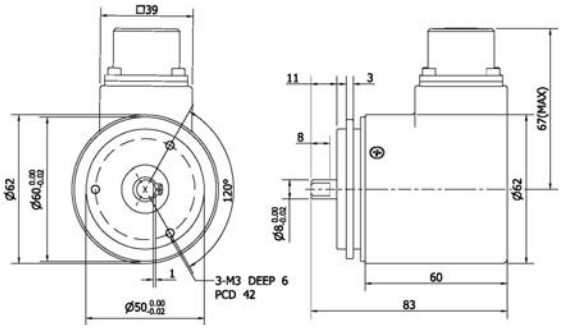
HTR-6D

HEAVY DUTY ROTARY ENCODER



cable output



connector output

ELECTRICAL SPEC.

Detection System	Incremental
Output Wave	Square Wave
Standard Number of Pulse Per Revolution	5, 10, 20, 30, 40, 50, 60, 80, 100, 120, 150, 180, 200, 250, 300, 360, 400, 500, 600, 720, 800, 900, 1000, 1024, *1800, 2000, *2048, 2500, *3000, *3600, *4000, *4096, *5000 * only with AB phase
Output Phase	AB phase or ABZ phase
Electronics	NPN Voltage, NPN Open Collector, Push Pull or Line Driver
Power Supply	DC 8~26V, DC 5V fixed
Current Consumption	≤ 60 mA
Output Capacity	Sync. Current: 20 mA, Residual Voltage: 0.5V or less
Max. Response	10K Hz ~ 100K Hz
Phase Different	A, B phase different 90°±45° (T/4±T/8), Z phase T±T/2
Wave Form Rise / Fall	2 μs or less
Polarity	Against Reverse Protection (not with DC 5V)

MECHANICAL SPEC.

Shaft Diameter	8 mm (6 mm option, please consult our sales department)
Shaft Loading	(10 ~ 1000 PPR) Axial: 4 Kg, Radial: 8 Kg (over 1000 PPR) Axial: 2 Kg, Radial: 4 Kg
Starting Torque (at 25°C)	260 gf-cm or less
Max. Speed	6,000 rpm
Vibration	10g (10±1,500 Hz)
Shock	20g per 11 ms
Cable	Ø5.4, 100 cm long
Weight	≤ 350g

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	-10°C ~ 60°C, RH 35% ~ 90% (No Condensation)
Storage Temp.	-20°C ~ 80°C
Protection	IP 64: dust & dripping proof

ORDERING INFORMATION

HTR-6D - *Pulse per Revolution* - *Output Phase* - *Electronics* - *Supply Voltage* - *Connection*

Pulse per Revolution	*Output Phase*	*Electronics*	*Supply Voltage*	*Connection*
5, 10, 20, 30, 40, 50, 60, 80, 100, 120, 150, 180, 200, 250, 300, 360, 400, 500, 600, 720, 800, 900, 1000, 1024, *1800, 2000, *2048, 2500, *3000, *3600, *4000, *4096, *5000 P/R *only with AB phase	**2**: AB phase **3**: ABZ phase **4**: AB+Z high phase	**Blank**: NPN Voltage **C**: NPN Open-Collector **PP**: Push-Pull *__L__: Line Driver 5Vdc *__HL__: Line Driver 5~26Vdc	**Blank**: 8~26Vdc **5V**: 5Vdc fixed	**Blank**: Axial Cable *__R7__: Radial 7 pin *__R10__: Radial 10 pin

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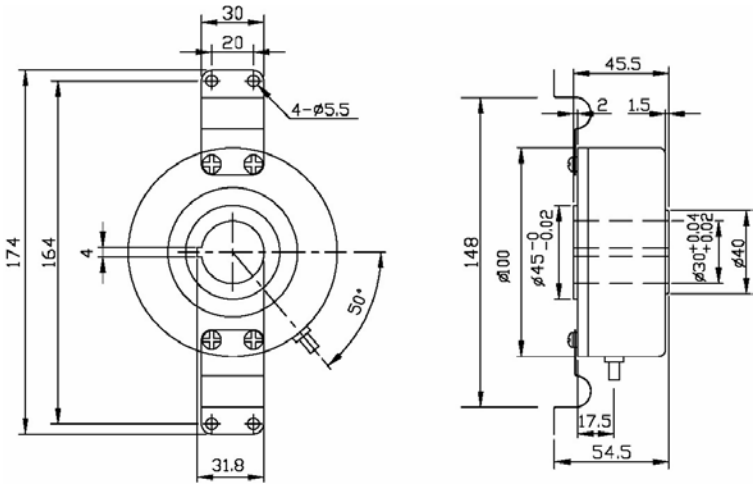
HTR-HD

HOLLOW TYPE ROTARY ENCODER



ELECTRICAL SPEC.

Detection System	Incremental
Output Wave	Square Wave
Standard Number of Pulse Per Revolution	200, 512, 600, 1024
Output Phase	AB phase or ABZ phase
Electronics	NPN Voltage, NPN Open Collector, Push Pull or Line Driver
Power Supply	DC 8~26V, DC 5V fixed
Current Consumption	≤ 60 mA
Output Capacity	Sync. Current: 20 mA, Residual Voltage: 0.5V or less
Max. Response	10K Hz ~ 100K Hz
Phase Different	A, B phase different 90°±45° (T/4±T/8), Z phase T±T/2
Wave Form Rise / Fall	2 μs or less
Polarity	Against Reverse Protection (not with DC 5V)

MECHANICAL SPEC.

Hollow Shaft Diameter	30 mm
Shaft Loading	Axial: 1 Kg, Radial: 2 Kg
Starting Torque (at 25°C)	≤ 600 gf-cm
Max. Speed	2,500 rpm
Vibration	10g (10±1,500 Hz)
Shock	20g per 11 ms
Cable	Ø5.4, 100 cm long
Weight	≤ 1200g

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	-10°C ~ 60°C, RH 35% ~ 90% (No Condensation)
Storage Temp.	-20°C ~ 80°C
Protection	IP50: Dust Proof

ORDERING INFORMATION

HTR-HD - *Hole Size* - *Pulse per Revolution* - *Output Phase* - *Electronics* - *Supply Voltage*

Hole Size	*Pulse per Revolution*	*Output Phase*	*Electronics*	*Supply Voltage*
30: 30 mm	200, 512, 600, 1024 P/R	**2**: AB phase **3**: ABZ phase **4**: AB+Z high phase	**Blank**: NPN Voltage **C**: NPN Open-Collector **PP**: Push-Pull *L: Line Driver 5Vdc *HL: Line Driver 5~26Vdc	**Blank**: 8~26Vdc **5V**: 5Vdc fixed

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HTR-HL

ROTARY ENCODER

HOLLOW SHAFT

for Servo Motor

- Hollow Shaft Diameter 8 mm
- with UVW Output Signal

ORDERING INFORMATION

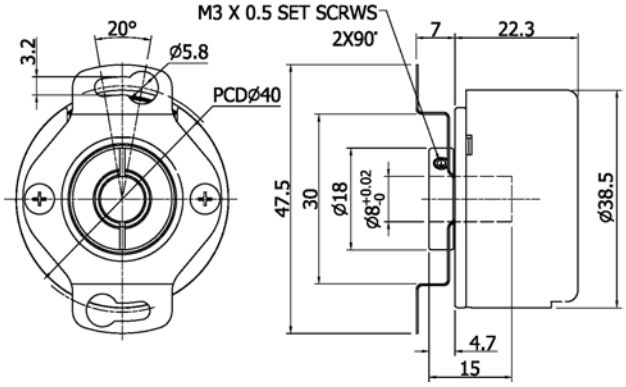
HTR-HLA - 8 - 2500 - 4 - [ ]

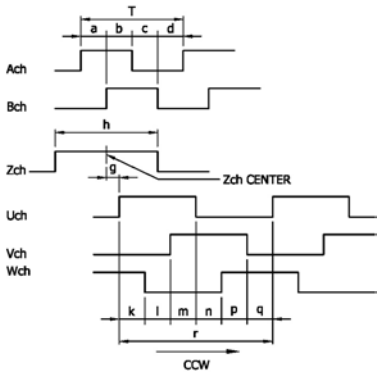
Connection

A: Connector 15 pin

B: Connector 9 pin

DIMENSION





a, b, c, d = T/4 ± T/8 T = 360° / Revolution

h = T ± T/2

k, l, m, n, p, q = 60° / poles ± 1.5°(Mechanical)

r = 360° / poles ± 1.5°(Mechanical)

g = ± 1°(Mechanical)

(Between CH Z center & CH U rise)

ELECTRICAL SPEC.

Pulse Per Revolution	2500
Phase Different	A, B phase different 90°±36° (T/4±T/10), Z phase T±T/4, UVW 120°±5°
Electronics	Line Driver
Output Phase	A, /A, B, /B, Z, /Z, U, /U, V, /V, W, /W phase
UVW pole	4 pole
Power Supply	DC 5V±10%
Current Consumption	≤ 150 mA
Output Capacity	Sync. Current: 20 mA, Hi Output ≥2.5Vdc, Lo Output ≤ 0.5Vdc
Max. Response	250K Hz
Wave Form Rise / Fall	≤ 100 ns

MECHANICAL SPEC.

Hollow Shaft Diameter	8 mm
Shaft Loading	90% Axial: 0.5 Kg, Radial: 1 Kg
Starting Torque (at 25°C)	30 gf-cm or less
Max. Speed	6,000 rpm
Vibration	10~55 Hz / 1.5 mm X,Y,Z 2 hr
Shock	50g per 11 ms
Weight	≤ 200g

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	-10°C ~ 85°C, RH 35% ~ (No Condensation)
Storage Temp.	-20°C ~ 85°C
Protection	IP50: Dust Proof

CONNECTOR PIN FUNCTION

PIN	A (15 14 13 12 11 10 9 8 7 6 5 4 3 2 1)	(OPTION) Cable 1 m with Female Connector
1	GND	Black
2	+V	Red
3	A	Blue
4	/ A	Blue / White
5	B	Green
6	/ B	Green / White
7	Z	Yellow
8	/ Z	Yellow / Black
9	U	Purple
10	/ U	Purple / White
11	V	Orange
12	/ V	Orange / White
13	W	Brown
14	/ W	Brown / White
15	NC	Shield

PIN	B (9 8 7 6 5 4 3 2 1)	(OPTION) Cable 1 m with Female Connector
1	GND	Black
2	+V	Red
3	U -> A	Blue
4	/ U -> / A	Purple
5	V -> B	Green
6	/ V -> / B	Orange
7	W -> Z	Yellow
8	/ W -> / Z	Brown
9	NC	Shield

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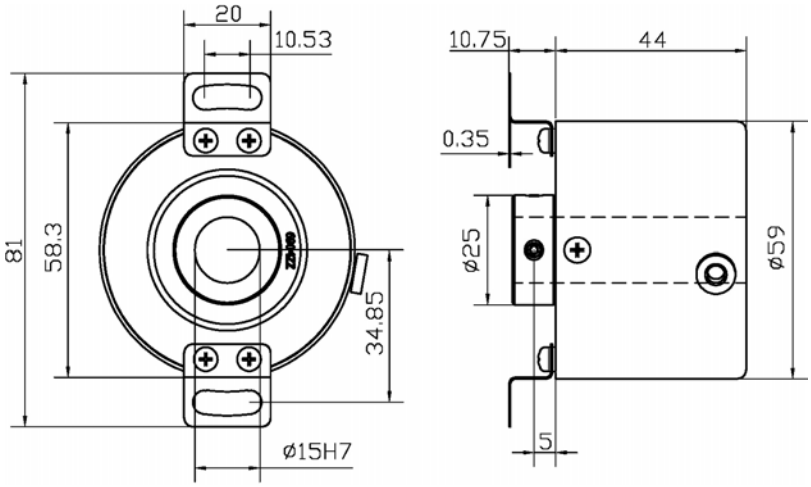
HTR-HM

HOLLOW TYPE ROTARY ENCODER



ELECTRICAL SPEC.

Detection System	Incremental
Output Wave	Square Wave
Standard Number of Pulse Per Revolution	5, 10, 20, 30, 40, 50, 60, 80, 100, 120, 150, 180, 200, 250, 300, 360, 400, 500, 600, 720, 800, 900, 1000, 1024, 2000, 2500
Output Phase	AB phase or ABZ phase
Electronics	NPN Voltage, NPN Open Collector, Push Pull or Line Drive
Power Supply	DC 8~26V, DC 5V fixed
Current Consumption	≤ 60 mA
Output Capacity	Sync. Current: 20 mA, Residual Voltage: 0.5V or less
Max. Response	10K Hz ~ 100K Hz
Phase Different	A, B phase different 90°±45° (T/4±T/8), Z phase T±T/2
Wave Form Rise / Fall	2 μs or less
Polarity	Against Reverse Protection (not with DC 5V)

MECHANICAL SPEC.

Hollow Shaft Diameter	12, 15 mm
Shaft Loading	(60 ~ 1024 PPR) Axial: 3 Kg, Radial: 5 Kg (over 1024 PPR) Axial: 2 Kg, Radial: 4 Kg
Starting Torque (at 25°C)	≤ 600 gf-cm
Max. Speed	2,000 rpm
Vibration	10g (10±1,500 Hz)
Shock	20g per 11 ms
Cable	Ø5.4, 100 cm long
Weight	≤ 450g

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	-10°C ~ 60°C, RH 35% ~ 90% (No Condensation)
Storage Temp.	-20°C ~ 80°C
Protection	IP50: Dust Proof

ORDERING INFORMATION

HTR-HM -

Hole Size	*Pulse per Revolution*	*Output Phase*	*Electronics*	*Supply Voltage*	*Connection*
12: 12 mm **15**: 15 mm	5, 10, 20, 30, 40, 50, 60, 80, 100, 120, 150, 180, 200, 250, 300, 360, 400, 500, 600, 720, 800, 900, 1000, 1024, 2000, 2500 P/R	**2**: AB phase **3**: ABZ phase 4: AB+Z high phase	**Blank**: NPN Voltage **C**: NPN Open-Collector **PP**: Push-Pull *__L__: Line Driver 5Vdc *__HL__: Line Driver 5~26Vdc	**Blank**: 8~26Vdc **5V**: 5Vdc fixed	**Blank**: Radial Cable

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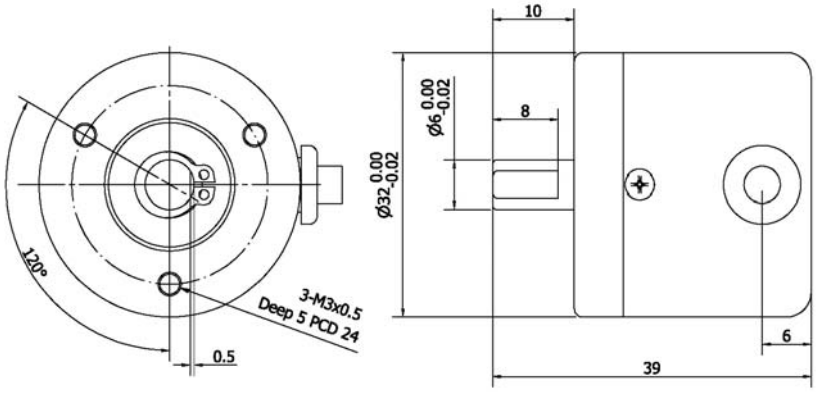
HONTKO

HTR-M2

ECONOMICAL & SMALL ROTARY ENCODER



ELECTRICAL SPEC.

Detection System	Incremental
Output Wave	Square Wave
Standard Number of Pulse Per Revolution	10, 40, 50, 60, 100, 150, 200, 250, 300, 360, 400, 500, 600, 800, 1000
Output Phase	AB phase
Electronics	NPN Voltage , NPN Open Collector
Power Supply	DC 5~12V or DC 10~26V for NPN Voltage, DC 5~26V for NPN Open Collector
Current Consumption	≤ 50 mA
Output Capacity	Sync. Current: 20 mA, Residual Voltage: 0.5V or less
Max. Response	10K Hz ~ 100K Hz
Phase Different	A, B phase different 90°±45° (T/4±T/8)
Wave Form Rise / Fall	2 μs or less
Polarity	Against Reverse Protection

MECHANICAL SPEC.

Shaft Diameter	6 mm
Shaft Loading	Axial: 0.5 Kg, Radial: 1 Kg
Starting Torque (at 25°C)	20 gf-cm or less
Max. Speed	6,000 rpm
Vibration	10g (10±1,500 Hz)
Shock	20g per 11 ms
Cable	Ø4.5, 50 cm long
Weight	≤ 100g

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	-10°C ~ 60°C, RH 35% ~ 90% (No Condensation)
Storage Temp.	-20°C ~ 80°C
Protection	IP50: Dust Proof

ORDERING INFORMATION

HTR-M2 - *Pulse per Revolution* - *Output Phase* - *Electronics* - *Supply Voltage*

Pulse per Revolution	Output Phase	Electronics	Supply Voltage
10, 40, 50, 60, 100, 150, 200, 250, 300, 360, 400, 500, 600, 800, 1000 P/R	**2**: AB phase	**LV**: NPN Voltage	**Blank**: 5~12Vdc
		HV: NPN Voltage	**Blank**: 10~26Vdc
		C: NPN Open-Collector	**Blank**: 5~26Vdc

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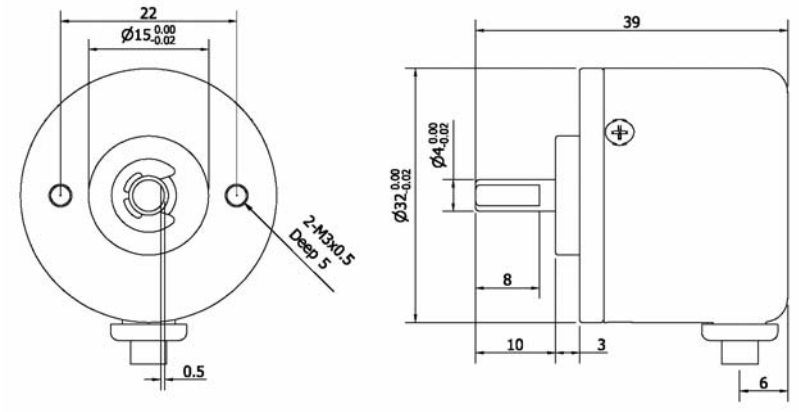
HTR-OS

ECONOMICAL & SMALL ROTARY ENCODER



ELECTRICAL SPEC.

Detection System	Incremental
Output Wave	Square Wave
Standard Number of Pulse Per Revolution	10, 40, 50, 60, 100, 150, 200, 250, 300, 360, 400, 500
Output Phase	AB phase
Electronics	NPN Voltage , NPN Open Collector
Power Supply	DC 5~12V or DC 10~26V for NPN Voltage, DC 5~26V for NPN Open Collector
Current Consumption	≤ 50 mA
Output Capacity	Sync. Current: 20 mA, Residual Voltage: 0.5V or less
Max. Response	10K Hz ~ 100K Hz
Phase Different	A, B phase different 90°±45° (T/4±T/8)
Wave Form Rise / Fall	2 μs or less
Polarity	Against Reverse Protection

MECHANICAL SPEC.

Shaft Diameter	4 mm
Shaft Loading	Axial: 0.5 Kg, Radial: 1 Kg
Starting Torque (at 25°C)	20 gf-cm or less
Max. Speed	6,000 rpm
Vibration	10g (10±1,500 Hz)
Polarity	Against Reverse Protection
Shock	20g per 11 ms
Cable	Ø4.5, 50 cm long
Weight	≤ 100g

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	-10°C ~ 60°C, RH 35% ~ 90% (No Condensation)
Storage Temp.	-20°C ~ 80°C
Protection	IP50: Dust Proof

ORDERING INFORMATION

HTR-OS - *Pulse per Revolution* - *Output Phase* - *Electronics* - *Supply Voltage*

Pulse per Revolution	Output Phase	Electronics	Supply Voltage
10, 40, 50, 60, 100, 150, 200, 250, 300, 360, 400, 500 P/R	**2**: AB phase	**LV**: NPN Voltage	**Blank**: 5~12Vdc
		HV: NPN Voltage	**Blank**: 10~26Vdc
		C: NPN Open-Collector	**Blank**: 5~26Vdc

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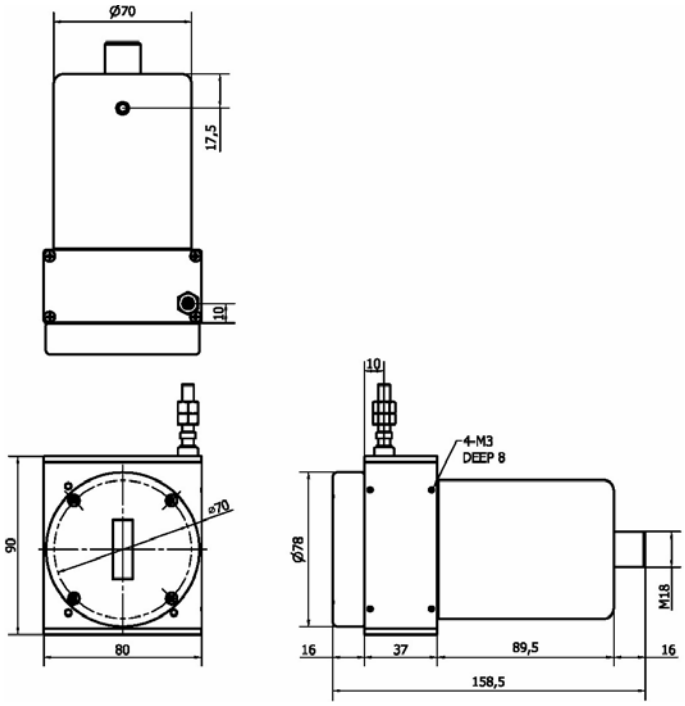
HONTKO

MLS-M

LINEAR WIRE TRANSDUCER

- *PRECISION ELECTRIC 0-10V AND CURRENT 4-20MA SIGNAL OUTPUT*
- *SUITABLE FOR SHORT TO MEDIUM MEASUREMENT RANGE*



ELECTRICAL SPEC.

Full Stroke (mm)	1000, 1250, 1500, 2000
Sensor	Inductive Proximity Sensor
Output Signal Mode	4-20mA (±0.8mA); 0-10V (±0.4V)
Resolution	0.3 mm
Time Delay before availability	≤ 50 msec
Input Power (U_B)	15-30Vdc
No-load supply current	≤ 12 mA
Max. load at current output A2	500Ω (U_B =15V); 1KΩ(U_B =30V)

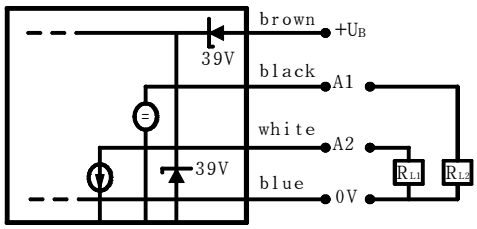
MECHANICAL SPEC.

Wire Specification	(stroke < 1250 mm) Diameter 0.6 mm SUS304 with nylon – coated (stroke < 1500 mm) Diameter 0.7 mm SUS304 with nylon – coated
Max. Travel Speed	500 mm / sec.
Vibration	10 Hz to 2000 Hz, 10 g
Cable	PUR4 X 0.25 mm^2 / 128XØ0.05 mm, cable length 2 m
Weight	< 1,300 g
Starting Torque on Spring	(stroke 0 ~ 1250 mm) 600 g max.; (stroke over 1500 mm) 1000 g max

ENVIRONMENTAL SPEC.

Operating Temp. / Humidity	-25°C ~ 70°C
Storage Temp.	-20°C ~ 80°C
Protection	IP67

ELECTRICAL CONNECTION



U_B	15…30 VDC
U_{A1}	0…+10 VDC
I_{A2}	4…20 mADC

ORDERING INFORMATION

MLS-M - *Measuring Range*

10 :	1000 mm	**15** :	1500 mm
125 :	1250 mm	**20** :	2000 mm

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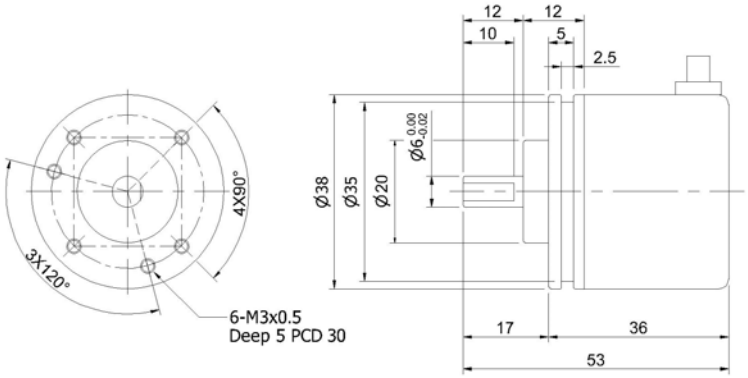
MLS-R

SINGLE TURN
MAGNETIC SENSOR

FEATURES & APPLICATION

- Long Life: 1X10^9 cycles
- High Resolution: +/- 0.1%FS
- Application: Angle, Position, Tension, Speed
- Output Type: 4-20 mA

DIMENSION



ORDERING INFORMATION

MLS-R - [ ]

Output Type

420 : 4-20mA

ELECTRICAL SPEC.

Power Supply	DC 10~30V
Output Type	4-20 mA
Resolution	+/- 0.1%FS
Output Tolerance	+/- 0.1%FS
Output Loading	750 ohm
Dielectric Strength Vrms)	1KV / min.
Dielectric Resistance MΩ min.)	100 M / 500 Vdc
Temp. Coefficient ppm/℃)	+/- 250 ppm/°C

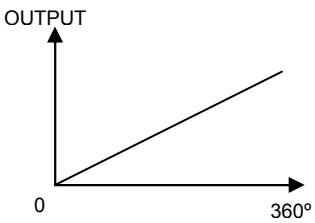
MECHANICAL SPEC.

Shaft Diameter	6 mm
Mechanical Angle	360° continuous
rpm)	1000 rpm
Mechanical Life	1X10^9 cycles
Cable	Ø4.5, 1 m long
Weight	< 200 g

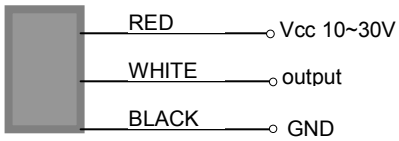
ENVIRONMENTAL SPEC.

Operating Temp.	-20°C ~ 60°C

OUTPUT CURVE



CONNECTION



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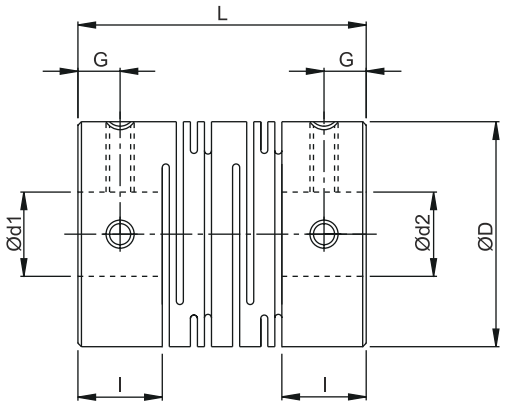
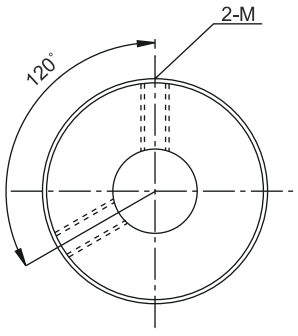




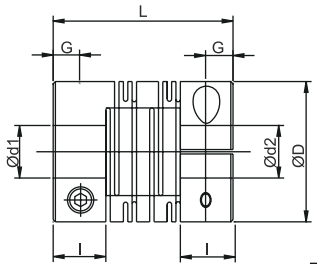
Dimension

Unit:mm

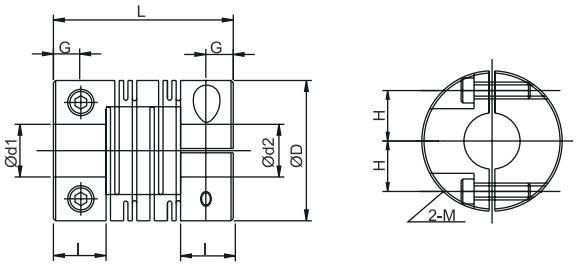
Catalog Number	D	l	L	G	M	Wrench Torque (N.m)	Mass** (g)
SCT-8	8	3.5	14	1.7	M2	0.3	1.4
SCT-12	12	5	18.5	2.5	M2.5	0.5	3.7
SCT-16	16	6.5	23	3	M3	0.7	8.1
SCT-20	20	7.5	26	3	M4	0.7	14
SCT-25	25	8.5	31	4	M4	1.7	27
SCT-32	32	12	41	6	M5	1.7	60
SCT-40	40	15	56	8.5	M5	4	130
SCT-50	50	18	71	10.5	M6	7	260
SCT-63	63	22	90	13	M8	15	490
SCTS-12	12	5	18.5	2.5	M2.5	0.5	9.3
SCTS-16	16	6.5	23	3	M3	0.7	21
SCTS-20	20	7.5	26	3	M4	0.7	38
SCTS-25	25	8.5	31	4	M4	1.7	71
SCTS-32	32	12	41	6	M5	1.7	160
SCTS-40	40	15	56	8.5	M5	4	350
SCTS-50	50	18	71	10.5	M6	7	700
SCTS-63	63	22	90	13	M8	15	1300

性 能 / Function

Catalog Number	Max. Bore (mm)	Rated Torque (N.m)	Max. Torque (N.m)	Max. Rotational Frequency (min_{-1})	Moment* of Inertia ($kg.m_2$)	Static Tortional Stiffness (N.m/rad)	Errors of Eccentricity (mm)	Errors of Angularity (°)	Errors of Shaft End-Play (mm)
SCT-8	4	0.1	0.2	48000	$1.2x10^{-8}$	25	0.10	2	±0.2
SCT-12	6	0.2	0.4	32000	$8.3x10^{-8}$	35	0.10	2	±0.3
SCT-16	8	0.3	0.6	24000	$3.3x10^{-7}$	47	0.10	2	±0.4
SCT-20	10	0.5	1	19000	$9.0x10^{-7}$	120	0.10	2	±0.4
SCT-25	12	1	2	15000	$2.6x10^{-6}$	170	0.15	2	±0.5
SCT-32	16	2	4	12000	$9.6x10^{-6}$	280	0.15	2	±0.5
SCT-40	20	5	10	9600	$3.2x10^{-5}$	350	0.20	2	±0.5
SCT-50	25	10	20	7700	$1.0x10^{-4}$	590	0.20	2	±0.5
SCT-63	35	20	40	6100	$3.2x10^{-4}$	850	0.20	2	±0.5
SCTS-12	6	0.3	0.6	32000	$2.1x10^{-7}$	64	0.10	2	±0.3
SCTS-16	8	0.5	1	24000	$8.4x10^{-7}$	85	0.10	2	±0.3
SCTS-20	10	1	2	19000	$2.4x10^{-6}$	250	0.10	2	±0.3
SCTS-25	12	2	4	15000	$6.8x10^{-6}$	330	0.15	2	±0.4
SCTS-32	16	3.5	7	12000	$2.6x10^{-5}$	850	0.15	2	±0.5
SCTS-40	20	8	16	9600	$8.7x10^{-5}$	1000	0.20	2	±0.5
SCTS-50	25	15	30	7700	$2.7x10^{-4}$	1400	0.20	2	±0.5
SCTS-63	35	35	70	6100	$8.4x10^{-4}$	1800	0.20	2	±0.5



(D)Ø16~Ø32



(D)Ø40~Ø63

Dimension

Unit:mm

Catalog Number	D	l	L	G	H	M	Wrench Torque (N.m)	Mass** (g)
SCT-12C	12	5	18.5	2.5	4	M2	0.5	3.6
SCT-16C	16	6.5	23	3.25	5	M2.5	1	9.2
SCT-20C	20	7.5	26	3.75	6.5	M3	1	16
SCT-25C	25	8.5	31	4.25	9	M4	1.5	28
SCT-32C	32	12	41	6	11	M4	2.5	64
SCT-40C	40	15	56	8.5	14	M5	4	140
SCT-50C	50	18	71	10.5	18	M6	8	270
SCT-63C	63	22	90	13	24	M8	16	530
SCTS-12C	12	5	18.5	2.5	4	M2	0.5	10
SCTS-16C	16	6.5	23	3.25	5	M2.5	1	25
SCTS-20C	20	7.5	26	3.75	6.5	M3	1	43
SCTS-25C	25	8.5	31	4.25	9	M4	1.5	78
SCTS-32C	32	12	41	6	11	M4	2.5	170
SCTS-40C	40	15	56	8.5	14	M5	4	370
SCTS-50C	50	18	71	10.5	18	M6	8	750
SCTS-63C	63	22	90	13	24	M8	16	1400

Function

Catalog Number	Max. Bore (mm)	Rated Torque (N.m)	Max. Torque (N.m)	Max. Rotational Frequency (min_{-1})	Moment* of Inertia ($kg.m_2$)	Static Tortional Stiffness (N.m/rad)	Errors of Eccentricity (mm)	Errors of Angularity (°)	Errors of Shaft End-Play (mm)
SCT-12C	5	0.2	0.4	12000	$7.8x10^{-8}$	35	0.10	2	±0.3
SCT-16C	6	0.3	0.6	9500	$3.4x10^{-7}$	47	0.10	2	±0.4
SCT-20C	8	0.5	1	7600	$9.1x10^{-7}$	120	0.10	2	±0.4
SCT-25C	12	1	2	6100	$2.6x10^{-6}$	170	0.15	2	±0.5
SCT-32C	16	2	4	4800	$9.7x10^{-6}$	280	0.15	2	±0.5
SCT-40C	18	5	10	3800	$3.3x10^{-5}$	350	0.20	2	±0.5
SCT-50C	22	10	20	3100	$1.0x10^{-4}$	590	0.20	2	±0.5
SCT-63C	30	20	40	2400	$3.2x10^{-4}$	850	0.20	2	±0.5
SCTS-12C	5	0.3	0.6	12000	$2.2x10^{-7}$	64	0.10	2	±0.2
SCTS-16C	6	0.5	1	9500	$9.0x10^{-7}$	85	0.10	2	±0.3
SCTS-20C	8	1	2	7600	$2.5x10^{-6}$	250	0.10	2	±0.3
SCTS-25C	12	2	4	6100	$7.1x10^{-6}$	330	0.15	2	±0.4
SCTS-32C	16	3.5	7	4800	$2.7x10^{-5}$	850	0.15	2	±0.5
SCTS-40C	18	8	16	3800	$9.0x10^{-5}$	1000	0.20	2	±0.5
SCTS-50C	22	15	30	3100	$2.8x10^{-4}$	1400	0.20	2	±0.5
SCTS-63C	30	35	70	2400	$8.8x10^{-4}$	1800	0.20	2	±0.5

Stock Bores

Unit:mm

Catalog Number	Stock Bores d1xd2 (H8)													
	2	3	4	5	6	6.35	8	9.525	10	12	14	15	16	18
SCT-8	●	●												
SCTS-8														
SCT-12		●	●	●	●									
SCTS-12		●	●	●	●									
SCT-16			●	●	●	●	●							
SCTS-16				●	●	●	●							
SCT-20				●	●	●	●		●					
SCTS-20				●	●	●	●	●	●					
SCT-25					●	●	●	●	●	●				
SCTS-25					●	●	●	●	●	●				
SCT-32					●	●	●	●	●	●				
SCTS-32							●	●	●	●	●		●	
SCT-40								●	●	●	●		●	
SCTS-40											●	●	●	●
SCT-50										●	●	●	●	●
SCTS-50										●	●	●	●	●
SCT-63											●	●	●	●
SCTS-63											●	●	●	●

Stock Bores

Unit:mm

Catalog Number	Stock Bores d1xd2 (H8)													
	2	3	4	5	6	6.35	8	9.525	10	12	14	15	16	18
SCT-12C			●	●										
SCTS-12C			●	●										
SCT-16C				●	●	●	●							
SCTS-16C				●	●	●	●							
SCT-20C				●	●	●	●							
SCTS-20C				●	●	●	●							
SCT-25C				●	●	●	●		●					
SCTS-25C				●	●	●	●	●	●					
SCT-32C							●	●	●	●				
SCTS-32C									●	●	●			
SCT-40C							●	●	●	●	●	●	●	
SCTS-40C							●	●	●	●	●	●	●	
SCT-50C										●	●	●	●	●
SCTS-50C										●	●	●	●	●
SCT-63C											●	●	●	●
SCTS-63C											●	●	●	●

Material

SCT.SCT-C	Aluminum alloy
SCTS.SCTS-C	Stainless steel

Character

1. One-body shape
2. Zero backlash
3. High rigid
4. Light and landy zero contamination
5. ENCODER , To suit of Encoder
6. High deflection
7. Fixed mode:Clamping type

Product NO:

SCT-20 - Ø5xØ5

TYPE — Inside dia

HONTKO

SE-150

MODULE OPTICAL ENCODER

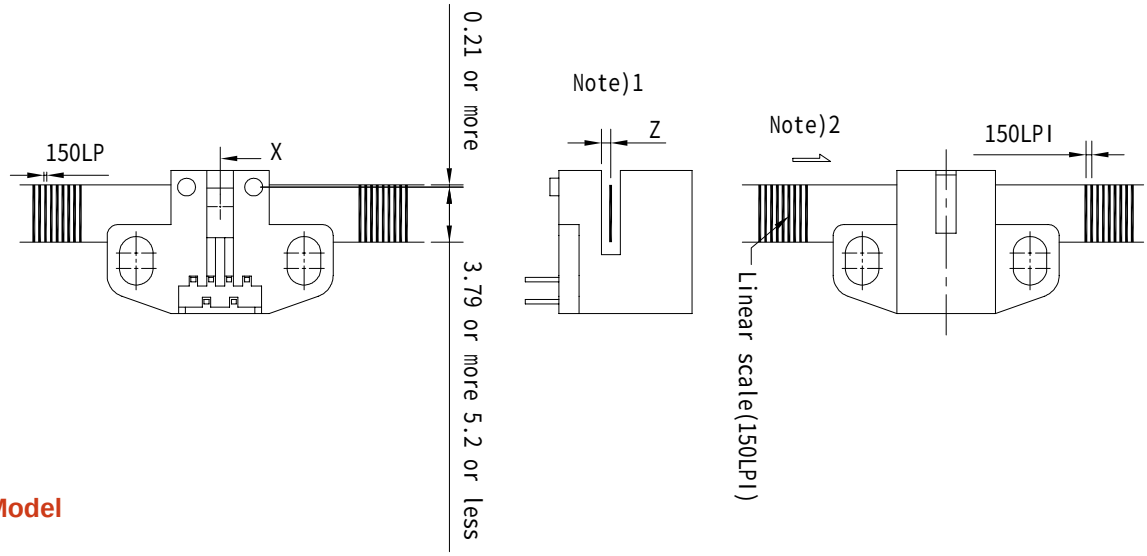
APPLICATION

- ♦ Printer
- ♦ Plotter
- ♦ OA Machine OA
- ♦ Middle and small motors and other control for position or angle measurement.

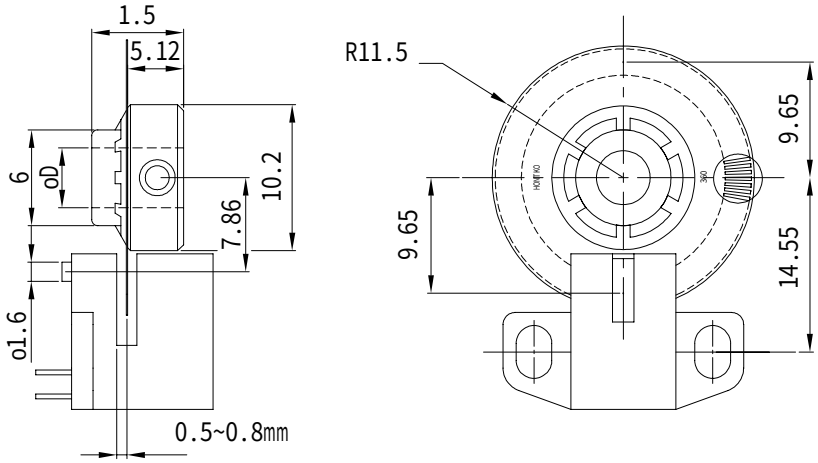
SPECIFICATION

Power Supply	DC 5V +/- 10% (others by request)
Pulse per Revolution	360 P/R (standard), others by request
Output Wave	Square Wave; A,B phase (90+/-45°)
Response	50K Hz Max.
Max. Speed	3,000 R.P.M.
Operating Temp.	0~60℃
Hub Diameter	2 / 2.5 / 3 / 4 mm

ASSEMBLIES



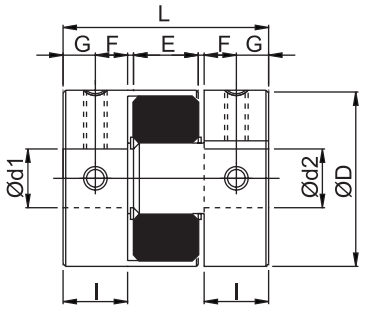
Linear Scale Model



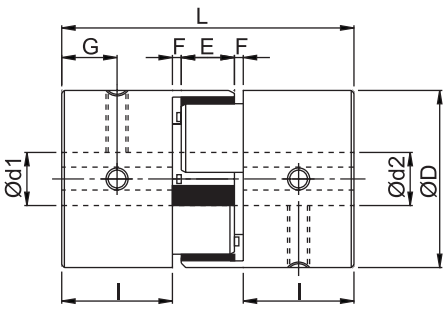
Rotary Model

SENSORMATIC SPECIALIST&SOLUTIONS

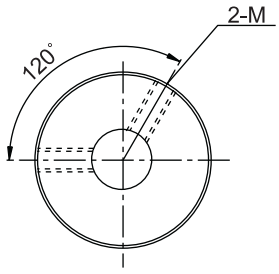
Sensormatic srl - Via della Beverara 13 - 40131 Bologna - Italia
Tel. +39 051 6353 511 - Fax +39 051 6345 925 - www.sensormatic.it



(D)Ø20~Ø30



(D)Ø40~Ø65



Dimension

Unit:mm

Catalog Number	D	I	L	E	F	G	M	Wrench Torque (N.m)	Mass** (g)
SRJ-20-RD	20	10	30	8	1	5	M3	0.7	18
SRJ-30-RD	30	11	35	10	1.5	5.5	M4	1.7	46
SRJ-40-RD	40	25	66	12	2	12.5	M5	4	180
SRJ-40S-RD	40	14	42	12	2	7	M5	4	150
SRJ-55-RD	55	30	78	14	2	15	M6	7	350

Function

Catalog Number	Max. Bore (mm)	Rated Torque (N.m)	Max. Torque (N.m)	Max. Rotational Frequency (min_{-1})	Moment* of Inertia ($kg.m_2$)	Static Tortional Stiffness (N.m/rad)	Errors of Eccentricity (mm)	Errors of Angularity (°)
SRJ-20-RD	9.525	5	10	19000	$1.0x10^{-6}$	55	0.10	1.0
SRJ-30-RD	14	12.5	25	13000	$5.9x10^{-6}$	130	0.10	1.0
SRJ-40-RD	20	17	34	9600	$4.0x10^{-5}$	1200	0.10	1.0
SRJ-40S-RD	20	17	34	9600	$4.0x10^{-5}$	1200	0.10	1.0
SRJ-55-RD	25	60	120	7000	$1.7x10^{-4}$	2600	0.10	1.0

Stock Bores

Unit:mm

Catalog Number	Stock Bores d1xd2 (H8)																	
	3	4	5	6	6.35	7	8	9.525	10	11	12	14	15	16	18	19	20	25
SRJ-20-RD			●	●	●	●	●	●										
SRJ-30-RD						●	●	●	●	●	●	●						
SRJ-40-RD									●	●	●	●	●	●				
SRJ-40S-RD									●	●	●	●	●	●				
SRJ-55-RD													●	●	●	●	●	●

Material

Aluminum alloy

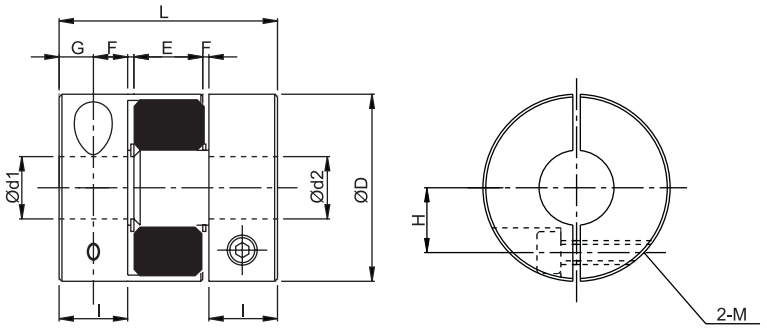
Product NO:

SRJ-20-RD - Ø6xØ6

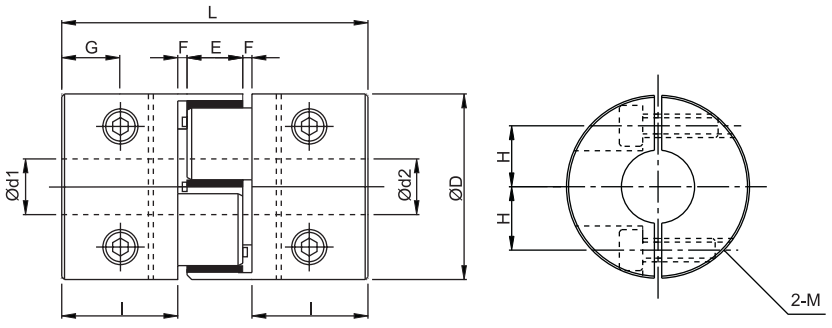
TYPE — Inside dia

Character

1. High torque
2. High rigid
3. Anti-seismic
4. 適合用於　般傳動及切削性
5. 緩衝材：工程塑膠
6. Fixed mode:Set screw type



(D)Ø20~Ø30



(D)Ø40~Ø65

Dimension

Unit:mm

Catalog Number	D	I	L	E	F	G	H	M	Wrench Torque (N.m)	Mass** (g)
SRJ-20C-RD	20	10	30	8	1	5	6.5	M2.5	1	19
SRJ-30C-RD	30	11	35	10	1.5	5.5	10	M4	2.5	50
SRJ-40C-RD	40	25	66	12	2	8.5	14	M5	4	160
SRJ-55C-RD	55	30	78	14	2	10.5	20	M6	8	330

Function

Catalog Number	Max. Bore (mm)	Rated Torque (N.m)	Max. Torque (N.m)	Max. Rotational Frequency (min_{-1})	Moment* of Inertia ($kg.m_2$)	Static Tortional Stiffness (N.m/rad)	Errors of Eccentricity (mm)	Errors of Angularity (°)
SRJ-20C-RD	8	5	10	7600	$1.1x10^{-6}$	55	0.10	1.0
SRJ-30C-RD	15	12.5	25	5100	$6.2x10^{-6}$	130	0.10	1.0
SRJ-40C-RD	18	17	34	3800	$3.9x10^{-5}$	1200	0.10	1.0
SRJ-55C-RD	25	60	120	2800	$1.6x10^{-4}$	2600	0.10	1.0

Stock Bores

Unit:mm

Catalog Number	Stock Bores d1xd2 (H8)																	
	3	4	5	6	6.35	7	8	9.525	10	11	12	14	15	16	18	19	20	25
SRJ-20C-RD			●	●	●	●	●											
SRJ-30C-RD						●	●	●	●	●	●							
SRJ-40C-RD									●	●	●	●	●	●				
SRJ-55C-RD													●	●	●	●	●	●

Material

Aluminum alloy

Product NO:

SRJ-20C-RD - Ø6xØ6

TYPE — Inside dia

Character

1. High torque
2. High rigid
3. Anti-seismic
4. 適合用於一般傳動及切削性
5. 緩衝材：工程塑膠
6. Fixed mode:Clamping type

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