

Magnetic Heavy duty encoder

MHE100 incremental encoder

HTL or TTL output (RS422 compatible)

WaySen
Positionsmesstechnik



Technical description:



MAGlevel



Feature:

- Robust housing, long life SKF ball bearing, special shaft sealing
- Insulated hollow shaft, shaft current protection
- Housing diameter Ø 98 mm, 30°, 90°, 120° torque arm mounting plate.
- Hollow shaft diameter Ø 12 mm, Ø 16 mm, Ø 20 mm or cone shaft Ø 17mm, 1:10
- Cable or M23 plug outlet according to industry harsh environment
- High protection class up to IP66
- High radial and axial shaft load
- Incremental output: Supply 10-30V or 5VDC
- Output level: HTL output
TTL(RS422 compatible)
- Optional: Double encoder

Application:

Still plant, metallurgy industry, crane and hoist, mining equipment etc drive control.

Electrical feature:

Power supply:	10-30VDC (reverse protection) or 5VDC	
No-load supply current:	Max. 60 mA with 24 V DC	
Power consumption:	Max. 2.5 Watts	
Max Output frequency:	120 kHz	
EMC:	Emitted interference according to EN 50082-2	
	Interference rejection according to EN 61000-6-2	
Pulse counts(ppr):	Pulse: 128, 256, 512, 1024, 2048, 4096, 8192 (other enquiry)	
Output type:	HTL	TTL(RS422 compatible)
Output level:	$U_{low} \leq 1V, U_{high} \geq 22V$	$U_{low} \leq 0.5V, U_{high} \geq 2.5V$
Voltage drop:	<3V	-----
Load current (per channel)	50 mA (peak 140mA)	average 25mA
Pulse ratio:	1 : 1 ± 15%	
Square-wave displacement	80° 100°	

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Mechanical feature:

Housing material:	Aluminium, stainless steel as option
Ball bearing working life	Depend on the shaft load Typical > 60,000H
Shaft load	Axial: 200N, Radial: 300N
Moment of inertia	$\leq 300 \text{ gcm}^2$
Starting torque	$\leq 11 \text{ Ncm}$
RPM(continue running)	Max. 5,000 RPM
Shock resistance (EN 60068-2-27)	$\leq 300 \text{ g}$ (halfsine, 6 ms)
Long time shock(EN60028-2-29)	$\leq 200 \text{ g}$ (halfsine, 10ms)
Vibration resistance (EN 60068-2-6)	$\leq 20 \text{ g}$ (10 Hz ... 2,000 Hz)
Mass (standard)	$\approx 1.2\text{g}$
Mass (stainless steel)	$\approx 3\text{kg}$
Connection	Cable or M23 plug outlet
Hollow Shaft diameter	$\varnothing 12 \text{ mm}$, $\varnothing 16 \text{ mm}$, $\varnothing 20 \text{ mm}$, or cone shaft $\varnothing 17\text{mm}$, 1:10
Hollow Shaft length	52mm

Working environment:

Working temperature;	- 25 + 85 °C, (option - 40. + 85 °C)
Storage temperature:	- 25 + 85 °C, (option - 40. + 85 °C)
Humidity	98 % (without condensation)
Protection class (EN 60529)	Housing: IP 66 Shaft: IP65

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Electrical connection:

M23 connector pin alignment:

12	10	5	6	8	1	3	4	Housing
Ub(+24V)	Gnd	A	A/	B	B/	O	O/	Shield

Cable outlet cable color alignment:

Brown	White	Green	Yellow	Grey	Pink	Blue	black	Housing
Ub(+24V)	Gnd	A	A/	B	B/	O	O/	Shield

Accessories:

Motor mounting adapt shaft: ADP-S40-52

Encoder torque arm: M6 series

M23 connector without cable: M23-F12

M23 connector with 1M cable: M23-F12-1M

M23 connector with 2M cable: M23-F12-2M

M23 connector with 5M cable: M23-F12-5M

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Type code :

MHE100 - [A] . [B] . [C] . [D] . [E] . [F]

MHE 100 – Magnetic Heavy duty encoder, Euro Standard design

[A]: 6 – A+B+0 and A/+B/+0/

4 - A+B and A/+B/

3 - A+B+0

2 - A+B

1 -A

[B]: Pulse counts:

[C]: Pulse output level

H – HTL

T – TTL (RS422 compatible)

X – TTL(10-30VDC power supply,TTL output RS422 compatible)

[D]: Option 1

K1– Cable outlet 1M

K2–Cable outlet 2M

K5–Cable outlet 5M

P1– M23 connector

[E]: Option 2

N – Standard

D– Double encoder (enquiry the factory)

[F]: Outlet option 3

S – Standard torque arm

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Mechanical dimension (standard):

