

Data sheet for Incremental encoder

Article No. : 6FX2001-4NA10



Figure similar

Client order no. :
Order no. :
Offer no. :
Remarks :

Item no. :
Consignment no. :
Project :

Electrical data

| | |
|-------------------------------------|---|
| Operating voltage Up | DC 10 ...30 V |
| Max. power consumption without load | 150 mA |
| Signal level | UH >= 21 V at IH = 20 mA at 24 V; UL <= 2,8 V at IL = 20 mA at 24 V |
| Resolution | 100 S/R |
| Accuracy | 648 rad |
| Sampling frequency, max. | 300 kHz |
| Switching time (10 ... 90 %) | ≤ 200 ns |
| | Rise / fall time t+/t- <= |
| Phase relation signal A to B | 90 ° |
| Edge clearance at 300 kHz | 0.45 μs |
| LED failure monitoring | High impedance driver |

Cable length

To the downstream electronics, max. 300 m

Ambient temp in operation

Fixed installation of flange outlet or cable

- At Up = 10V ... 30V -40 ... 100 °C

Flexible cable

- At Up = 10V ... 30V -10 ... 100 °C

Standards

| | |
|---------------------------|---|
| Compliance with standards | CE, cULus |
| EMC class filter | Tested according to the EMC guidelines 89/336/EEC and the rules of the EMC guidelines (generic standards) |

Mechanical data

| | |
|--------------------------------|-----------------------------|
| Shaft diameter | 10 mm |
| Shaft length | 20 mm |
| Angular acceleration, max. | 100,000 rad/s ² |
| Rotor moment of inertia | 0.00000145 kgm ² |
| Vibration (55...2000 Hz), max. | 300 m/s ² |
| Friction torque (at 20°C) | 0.01 Nm |
| Starting torque (at 20°C) | 0.01 Nm |
| Net weight | 0.3 kg |

Max. admissible speed

| | |
|------------|-------------|
| Electrical | 180,000 rpm |
| Mechanical | 12,000 rpm |

Load capacity

n ≤ 6000 rpm

| | |
|-----------------------|------|
| - Axial | 40 N |
| - Radial at shaft end | 60 N |

n > 6000 rpm

| | |
|-----------------------|------|
| - Axial | 10 N |
| - Radial at shaft end | 20 N |

Shock, max.

| | |
|------|------------------------|
| 2 ms | 2,000 m/s ² |
| 6 ms | 1,000 m/s ² |

Degree of protection

| | |
|----------------|------|
| At housing | IP67 |
| At shaft input | IP64 |