



Incremental encoders DFS60, Rotary

DFS60B-S4EA03600



Model Name > DFS60B-S4EA03600
Part No. > 1038126



Illustration may differ

At a glance

- Compact installation depth
- High resolution up to 16 bits
- Optionally programmable: Output voltage, zero pulse position, zero pulse width and number of pulses
- Connection: Radial or axial cable outlet, M23 or M12 connector, axial or radial
- Electrical interfaces: 5V & 24V TTL/RS-422, 24 V HTL/push pull
- Mechanical interfaces: face mount or servo flange, blind or through hollow shaft
- Remote zero set possible

Your benefits

- Reduced storage costs and downtime due to customer-specific programming
- Variety of different mechanical and electrical interfaces enable the encoder to be optimally adjusted to fit the installation situation
- Excellent concentricity even at high speeds
- High resolution of up to 16 bits ensures precise measurements
- Permanent and safe operation due to a high enclosure rating, temperature resistance and a long bearing lifetime
- Programmability via the PGT-08 programming software and the PGT-10-S display programming tool allow the encoder to be adapted flexibly and quickly according to customer needs
- Programmable zero pulse position simplifies installation



Performance

| | |
|---------------------------|-------------------------------------|
| Error limits: | ± 0.05 ° |
| Measuring step deviation: | ± 0.01 ° |
| Measuring step: | 90 °/electronically/number of lines |
| Initialization time: | 40 ms |
| Pulses per revolution: | 3,600 |

Mechanical data

| | |
|---------------------------------|--------------------------------|
| Mechanical interface: | Solid shaft, Face mount flange |
| Shaft diameter: | 10 mm x 19 mm |
| Mass: | 0.3 kg |
| Start up torque: | 0.5 Ncm (+20 °C) |
| Operating torque: | 0.3 Ncm (+20 °C) |
| Maximum operating speed: | 10,000 /min |
| Moment of inertia of the rotor: | 6.2 gcm ² |

| | |
|---|------------------------------------|
| Bearing lifetime: | 3.6 x 10 ¹⁰ revolutions |
| Max. angular acceleration: | 500,000 rad/s ² |
| Permissible shaft loading radial/axial: | 40 N (axial), 80 N (radial) |

Electrical data

| | |
|--|---|
| Electrical interface: | 10 V ... 32 V, HTL/Push pull, Connector M23, 12-pin, radial |
| Connection type: | Connector M23, 12-pin, radial |
| Maximum output frequency: | 600 kHz |
| Reference signal, number: | 1 |
| Reference signal, position: | 90 °, electronically, gated with A and B |
| Operating voltage range: | 10 V ... 32 V |
| Load current max.: | 30 mA |
| Power consumption: | 0.5 W (without load) |
| MTTFd: mean time to dangerous failure: | 300 a (EN ISO 13849-1) ¹⁾ |

¹⁾ This product is a standard product and does not constitute a safety component as defined in the Machinery Directive.

Calculation based on nominal load of components, average ambient temperature 40°C, frequency of use 8760 h/a. All

electronic failures are considered hazardous. For more information, see document no. 8015532.

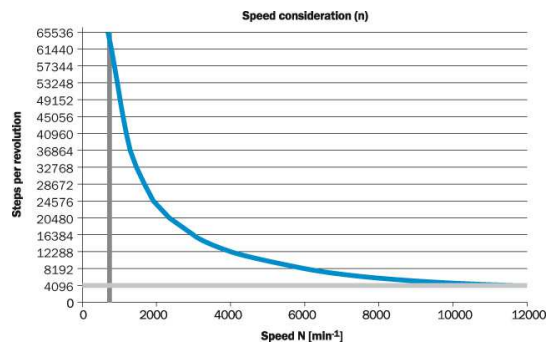
Ambient data

| | |
|--------------------------------|--|
| EMC: | (according to EN 61000-6-2 and EN 61000-6-3) |
| Working temperature range: | -30 °C ... +100 °C |
| Storage temperature range: | -40 °C ... +100 °C, without package |
| Resistance to shocks: | 70 g (according to EN 60068-2-27) |
| Resistance to vibration: | 30 g, 10 Hz ... 2,000 Hz (according to EN 60068-2-6) |
| Enclosure rating: | IP 65 (according to IEC 60529), shaft side, IP 67 (according to IEC 60529), housing side |
| Permissible relative humidity: | 90 % (condensation of the optical scanning not permitted) |

¹⁾ With mating connector fitted

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Drehzahlbetrachtung



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