



Incremental encoders DDS50

DDS50E-S4GS00600



Model Name > **DDS50E-S4GS00600**
Part No. > **1038757**



Illustration may differ

At a glance

- Compact diameter of 50 mm
- Choice of various electric interfaces: TTL/RS-422, HTL/push pull and open collector NPN
- Face mount flange with solid shaft
- Connection type using axial cable outlet
- Line counts from 100 up to 2,500 possible
- Working temperature range: -10 °C ... 70 °C
- Enclosure rating: IP65

Your benefits

- Compact design easily fits in applications with limited installation space
- Extensive incremental encoders product portfolio means users can select the right solution for their requirements
- Excellent price-performance ratio with a rugged IP 65 enclosure rating

Note: The product has been phased out. The replacement depends on the application. A replacement option can be found in the DBS63 or DBS50 product family.

Please contact your national subsidiary/agent for further information.



Performance

| | |
|---------------------------|-------------------------|
| Error limits: | ± 0.05 ° |
| Measuring step deviation: | ± 0.015 ° ¹⁾ |
| Measuring step: | 0.15 ° ²⁾ |
| Pulses per revolution: | 600 |

¹⁾ Measuring step x 0.1 ²⁾ 360°/(number of lines x 4)

Mechanical data

| | |
|-----------------------|--------------------------------|
| Mechanical interface: | Solid shaft, Face mount flange |
| Shaft diameter: | 8 mm x 15.5 mm |
| Mass: | 145 g |
| Start up torque: | 1 Ncm (20 °C) |
| Operating torque: | 4 Nmm (20 °C) |

| | |
|---|--|
| Maximum operating speed: | 6,000 U/min ¹⁾ |
| Moment of inertia of the rotor: | 0.8 kg/mm ² |
| Bearing lifetime: | 2 x 10 ⁹ revolutions |
| Max. angular acceleration: | 5 x 10 ⁵ rad/s ² |
| Permissible shaft loading radial/axial: | 50 N, 30 N |

¹⁾ Self-warming 3.3 K per 1,000 1/min

Electrical data

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|--|--|
| Electrical interface: | 7 V ... 24 V, HTL/Push pull, Cable, axial, 3 m |
| Connection type: | Cable, axial, 3 m |
| Operating power consumption (no load): | 100 mA |
| Supply voltage: | 7 V ... 24 V |
| Output current: | 20 mA |
| Maximum output frequency: | 300 kHz |
| Reference signal, number: | 1 |
| Reference signal, position: | 90 °, electronically, gated with A and B |

Ambient data

| | |
|--|--------------------------------------|
| EMC: | EN 61000-6-2, EN 61000-6-4 |
| Protection class housing side with cable outlet: | IP 65 |
| Protection class shaft side: | IP 65 |
| Air humidity: | 90 % ¹⁾ |
| Working temperature range: | -10 °C ... 70 °C |
| Storage temperature range: | -25 °C ... 85 °C, without package |
| Resistance to shocks: | 100 g, 6 ms (EN 60068-2-27) |
| Resistance to vibration: | 5 g, 10 Hz ... 200 Hz (EN 60068-2-6) |
| Enclosure rating: | IP 65 |

¹⁾ Condensation of the optical scanning not permitted

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