



## Incremental encoders DDS36

DDS36E-BBGS00500



**Model Name** > [DDS36E-BBGS00500](#)  
**Part No.** > [1038588](#)



*Illustration may differ*

#### At a glance

- Compact diameter of 36 mm
- Choice of various electric interfaces: TTL/RS-422, HTL/push pull and open collector NPN
- Designs with blind hollow shaft or face mount flange with solid shaft
- Connection with axial cable outlet
- Line counts from 100 up to 2,500
- 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

**The product has been discontinued. Please follow the "replacement product" link for information about alternative products.**



#### Performance

Error limits:	$\pm 0.05^\circ$
Measuring step deviation:	$\pm 0.018^\circ$ <sup>1)</sup>
Measuring step:	$0.18^\circ$ <sup>2)</sup>
Pulses per revolution:	500

<sup>1)</sup> Measuring step x 0.1 <sup>2)</sup>  $360^\circ / (\text{number of lines} \times 4)$

#### Mechanical data

Mechanical interface:	Blind hollow shaft
Shaft diameter:	8 mm
Mass:	130 g
Start up torque:	1 Ncm (20 °C)
Operating torque:	0.8 Ncm (20 °C)
Permissible movement axial static/dynamic:	$\pm 0.5$ mm, $\pm 0.2$ mm
Permissible movement radial static/dynamic:	$\pm 0.3$ mm, $\pm 0.1$ mm
Maximum operating speed:	6,000 U/min <sup>1)</sup>

Moment of inertia of the rotor:	1.5 kg/mm <sup>2</sup>
Bearing lifetime:	2 x 10 <sup>9</sup> revolutions
Max. angular acceleration:	5 x 10 <sup>5</sup> rad/s <sup>2</sup>

<sup>1)</sup> 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

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EMC:	EN 61000-6-2, EN 61000-6-4
Air humidity:	90 % <sup>1)</sup>
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

<sup>1)</sup> Condensation of the optical scanning not permitted

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