

WACHENDORFF

The Encoder Experts



Encoder WDG 100I Hollow shaft with insulating sleeve



wachendorff-automation.com/wdg100I

- Rugged and extremely flat
- Insulating sleeve to protect the bearings from currents
- High dielectric strength
- Balanced stainless steel clamping ring
- High protection level up to IP55
- Up to 20,480 PPR



Industrie ROBUST

WDG 100I Hollow shaft encoder

... with insulating sleeve to protect the bearings from currents



- Rugged and extremely thin thru-bore encoder
- Insulating sleeve to protect the bearings from currents
- High electric strength of 500 V
- Balanced stainless steel clamping ring for smooth running
- High noise immunity
- Operating temperature: -40 °C up to +80 °C
- High protection rating up to IP55 all around
- Full connection protection with 10 VDC up to 30 VDC

www.wachendorff-automation.com/wdg100i

High dielectric strength – long service life

Incremental hollow shaft encoders are used in drive motors, especially in the areas of elevator construction, crane technology and wind energy. These applications require extremely rugged encoders.

The WDG 100I series was specifically designed for these applications and the used mechanical and electronic components guarantee a long service life. Particularly the design and the dimensions of the bearings ensure reliability and a long service life.

The encoder is mounted directly on the motor shaft. The precision-balanced clamping ring of the WDG 100I ensures the vibration-free operation of the encoder on the motor shaft.

Apart from mechanical vibrations, so-called shaft currents can also affect the bearings and electronics of the encoder through the motor shaft. This can result in a gradual failure of the encoder mechanism – in particular the bearings – and impair the digital signals.

A tailor-made, pre-assembled insulating sleeve protects the WDG 100I encoder against these shaft currents.

The insulating sleeve is available in different diameters. It can be fitted quickly and easily. The perfectly matching shapes of the

sleeve and the shaft as well as an integrated lock nut prevent them from accidentally falling out. Nevertheless it is possible to dismantle the insulating sleeve and replace it in order to fit a different shaft diameter.

Incremental encoder WDG



Type:	WDG 100I
Material:	Aluminium
Resolution:	up to 20,480 ppr
Housing Ø:	100 mm
Shaft with insulating sleeve Ø:	up to 42 mm
Max. operating speed:	3,500 rpm (IP55 all around: 1,500 rpm)
Permissible shaft loading:	max. 200 N radial, max. 100 N axial
Output circuits:	TTL, RS422 comp., HTL, 1 Vpp sin/cos
Channels:	AB, ABN and inverted signals
Max. pulse frequency:	up to 2 MHz
Power supply:	4.75 VDC up to 5.5 VDC, 5 VDC up to 30 VDC, 10 VDC up to 30 VDC
Electric strength: (DIN EN 60243-2)	Insulating sleeve: 500 V
Operating temperature:	-20 °C up to +80 °C, (Insulating sleeve: -50 °C up to +100 °C) 1 Vpp: -10 °C up to +70 °C, optional -40 °C up to +80 °C
Protection rating:	IP54, optional IP55 all around
Further information:	www.wachendorff-automation.com /wdg100i

Any Questions? Just call us at +49 (0) 67 22 / 99 65 414, send us an E-Mail to support-wa@wachendorff.de or call your local distributor: www.wachendorff-automation.com/distri

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Your distributor: