

PROFINET

Absolute Encoders WDGA

Fast and compact



- The world's fastest and most compact PROFINET encoder!
- Ready for the latest PLC technology:
minimum bus cycle time 125 µs
- Designed for smaller installation spaces
- High precision: $\pm 0.0878^\circ$
- High dynamics: 50 µs
- Programmable setting parameters

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Wachendorff Automation has developed and manufactured systems and encoders for over 30 years. These have been used in a variety of applications all over the world. More than 2,000 implemented customer solutions demonstrate our high level of flexibility. Our encoders and systems come with a 5-year warranty – which is unique worldwide.

We have expanded our WDGA series of absolute encoders to include the industrial Ethernet interface PROFINET-IRT.

With our compact PROFINET WDGA58F encoder with bus cover, we have designed the world's smallest device for axial and radial direction. This saves you precious installation space. Extremely high load capacities ensure a long service life and reliable operation. In addition to the excellent mechanical properties, we have used the latest electronic components and most up-to-date communication profiles and encoder profiles.

Thanks to new high-precision and high-dynamic technologies, these extremely robust absolute encoders with magnetic scanning can now be used in areas where, until now, only absolute encoders with optical technology could be used.

Single-turn with QuattroMag® technology

- Resolution up to 16 bit Single-turn
- Accuracy $\pm 0.0878^\circ$ (≤ 12 bit)
- Repeat accuracy $\pm 0.0878^\circ$ (≤ 12 bit)
- Internal dynamic of 50 μ s

Multi-turn with EnDra® technology

- up to 43 bit Multi-turn
- no battery and no gear

Of course the PROFINET protocol includes not only standard functions but also extended parameters such as MRPD and MRP for automatic redundancy functions in the event of a fault.

Wachendorff is currently working on developing other Ethernet interfaces with all the advantages of the WDGA family.

Technical Data:

Types: clamping flange / hollow shaft (blind-bored)

Power supply/Current consumption:

10 VDC up to 32 VDC; typ. 125 mA

Power consumption: 3 W

Operating temperature: -40 °C up to +85 °C, -40 °F up to +176 °F

Sensor data:

Single-turn: patented QuattroMag® technology

Single-turn resolution: up to 65,536 steps/360° (16 bit)

Single-turn accuracy: $\pm 0.0878^\circ$ (≤ 12 bit)

Single-turn repeat accuracy: $\pm 0.0878^\circ$ (≤ 12 bit)

Internal cycle time: 50 μ s

Multi-turn: patented EnDra® technology no battery and no gear.

Multi-turn resolution: up to 43 bit

Interface: PROFINET-IRT (CC-C) V2.3

Device Profile: V4.1, Class 3, 4

Data Transfer: 100BASE-TX

Cycle time: up to 125 μ s

Function: Multi-turn

Code: binary, CW default

Programmable Parameter:

Steps per revolution, counts of revolution, preset, scale, counting direction, MRPD, MRP, LLDP

Diagnostics: (LED)

Traffic and connection management:

L/A1: Port 1

L/A2: Port 2

Status LED:

STAT, MOD: status of encoder and bus

Any Questions? Just call us at +49 (0) 6722/9965-10, send us an E-Mail to wdg@wachendorff.de or call your local distributor: www.wachendorff-automation.com/distri



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