# WACHENDORFF

The Encoder Experts

# EtherCAT Absolute Encoders
## WDGA encoders fast and compact

DEVELOPED AND
MADE IN GERMANY
5 YEARS WARRANTY

wachendorff-automation.com/ethercat

EtherCAT®

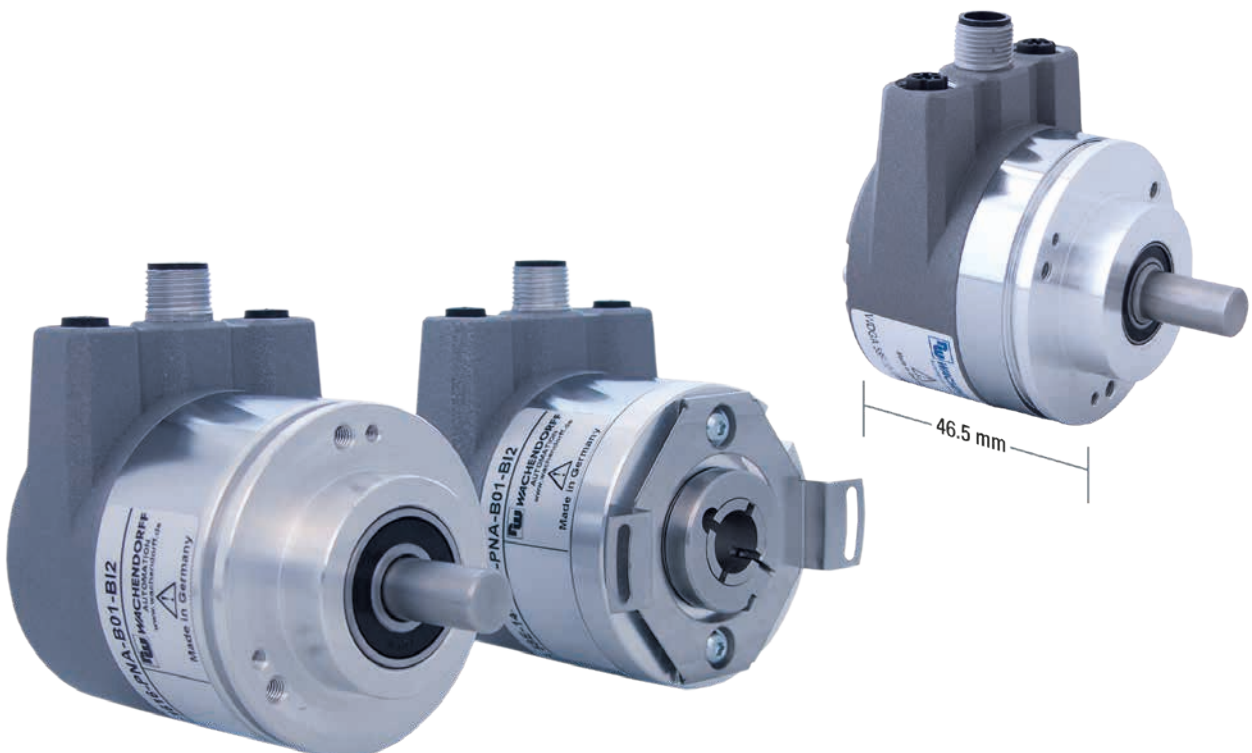The world´s fastest and most compact EtherCAT encoder
Ready for the latest PLC technology
Designed for smaller installation spaces
High precision: ±0.0878°
High dynamics: 50 µs
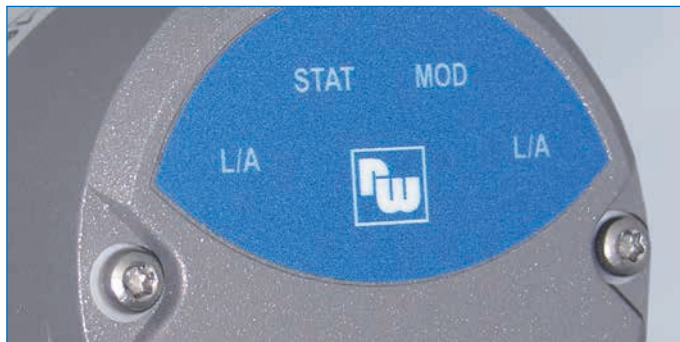Programmable setting parameters

46.5 mm

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LISTED

Industrie ROBUST

# EtherCAT Absolute Encoders WDGA
## ... Fast and compact



46,5 mm



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 EtherCAT.**

With our compact EtherCAT 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 ± 0.0878° (≤12 bit)
- Repeat accuracy ± 0.0878° (≤12 bit)
- Internal dynamic of 50 µs

### Multi-turn with EnDra® technology
- up to 43 bit Multi-turn
- no battery and no gear

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:** typ. 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: ±0.0878° (≤ 12 bit)
Single-turn repeat accuracy: ± 0.0878° (≤ 12 bit)
Internal cycle time: 50 µs
Multi-turn: patented EnDra® technology no battery and no gear.
Multi-turn resolution: up to 43 bit

**Interface: EtherCAT IO (CC-C) V2.3**
Device Profile: CiA DS-406 V4.0.2, Class 3
Data Transfer: 100BASE-TX
Cycle time: 50 µs
Function: Multi-turn
Code: binary, CW default, programable

**Programmable Parameter:**
Steps per revolution, counts of revolution, preset, scale, counting direction, 2x 8 cam switches, DC-Mode

**Diagnostics: (LED)**
Traffic and connection management:
L/A1: Port 1 (IN)
L/A2: Port 2 (OUT)

**Status LED:**
STAT, MOD: status of encoder and bus

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**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: