

Encoder WDGA 58A EtherNet/IP

www.wachendorff-automation.com/wdga58aeip

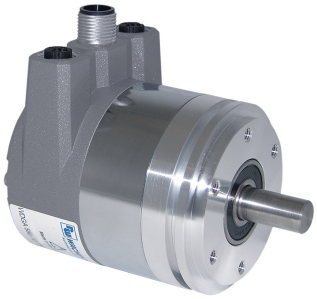
Wachendorff Automation

... systems and encoders

- Complete systems
- Industrial rugged encoders to suit your application
- Standard range and customer versions
- Maximum permissible loads
- 48-hour express production
- Made in Germany
- Worldwide distributor network

IndustrieROBUST

Encoder WDGA 58A absolute EtherNet/IP magnetic, with bus cover and with EnDra®- Technology



- EnDra®: maintenance-free and environmentally friendly
- EtherNet/IP™, Single-/Multiturn
- Compact design with bus cover
- Single-turn/Multi-turn (max. 16 bit/43 bit)
- Forward-looking technology
- 2 colour-duo LED´s as indicator for operating condition and bus status and 2 L/A LED´s
- High shaft load up to 220 N radial, 120 N axial
- Classes Position Sensor, DLR

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Mechanical Data	
Housing	
Flange	synchro flange
Flange material	aluminum
Housing cap	steel case chrome-plated, magnetic shielding
Connection cover	die cast aluminum, powder coated
Housing	Ø 58 mm

Shaft(s)	
Shaft material	stainless steel
Starting torque	approx. 1 Ncm at ambient temperature, approx. 1.416 in-ozf at ambient temperature
Shaft	Ø 6 mm
Advice	Attention: No option AAO = full IP67 version
Shaft length	L: 12 mm
Max. Permissible shaft loading radial	125 N
Max. Permissible shaft loading axial	120 N
Shaft	Ø 8 mm
Advice	Attention: No option AAO = full IP67 version
Shaft length	L: 19 mm
Max. Permissible shaft loading radial	125 N
Max. Permissible shaft loading axial	120 N
Shaft	Ø 10 mm
Shaft length	L: 20 mm
Max. Permissible shaft loading radial	220 N
Max. Permissible shaft loading axial	120 N
Shaft	Ø 9.525 mm, Ø 3/8"
Advice	Attention: No option AAO = full IP67 version
Shaft length	L: 20 mm, L: 0.787 in
Max. Permissible shaft loading radial	220 N, 22.434 kp
Max. Permissible shaft loading axial	120 N, 12.237 kp

Bearings	
Bearings type	2 precision ball bearings
Nominale service life	1 x 10'9 revs. at 100 % rated shaft load 1 x 10'10 revs. at 40 % rated shaft load 1 x 10'11 revs. at 20 % rated shaft load
Max. operating speed	8000 rpm

Machinery Directive: basic data safety integrity level	
$MTTF_d$	300 a
Mission time (TM)	20 a
Nominale service life (L10h)	1 x 10'11 revs. at 20 % rated shaft load and 8000 rpm
Diagnostic coverage (DC)	0 %

Electrical Data	
Power supply/Current consumption	10 VDC up to 32 VDC: typ. 125 mA
Power consumption	typ. 3 W

Sensor data	
Single-turn technology	innovativ hall sensor 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 technology	patented EnDra® technology no battery and no gear.
Multi-turn resolution	43 bit

Integrated web server:	
Configurable	IP address Subnet mask Gateway address
Readable	Encoder parameters
Update	Firmware

Environmental data	
ESD (DIN EN 61000-4-2):	8 kV
Burst (DIN EN 61000-4-4):	2 kV
includes EMC:	DIN EN 61000-6-2 DIN EN 61000-6-3
Vibration: (DIN EN 60068-2-6)	200 m/s^2 (10 Hz up to 1000 Hz)

Shock: (DIN EN 60068-2-27)	5000 m/s² (6 ms)
Design:	according DIN VDE 0160
Turn on time:	<1,5 s

Duty information	
Customs tariff number:	90318020
Country of origin:	Germany

Interface	
Interface:	**Industrial Ethernet**
Protocol:	EtherNet/IP™ Conformance tested according to Version CT-18, Specification Vol 2, Ed 1.29, CIP Specification Vol 1, Ed 3.31
Classes:	Position Sensor, DLR
Data Transfer:	100BASE-TX
Cycle time:	1 ms
Function:	Multiturn
Code:	binary, CW default, programable
Adjustable parameters:	Number of steps per revolution Number of revolution Scalin Direction of rotation CAMs Gear Ratio Preset Resolution Unit Speed IP address Position Position Limit Warning messages ("Frequency Exceeded" and "Position Limits Exceeded")
Objects (CIP Objects):	Identity Object Message Router Assembly Object Connection Manager Position Sensor Object Qos Object TCP/IP Interface Object EtherNet Link Object
EtherNet/IP Features:	DLR (Device Level Ring) possible Qos (Quality of Service) possible ACD (Address Conflict Detection) Multicast- and Unicast- capability
Diagnostics: (LED)	Traffic and connection management: L/A1: Port 1 L/A2: Port 2
Status LED:	STAT, MOD: status of encoder and bus

General Data	
Weight	approx. 700 g, approx. 24.7 oz
Connections	bus cover
Protection rating (EN 60529)	Housing: IP65, IP67; shaft sealed: IP65
Operating temperature	-40 °C up to +85 °C, -40 °F up to +176 °F
Storage temperature	-40 °C up to +100 °C, -40 °F up to +212 °F

More Information

General technical data and safety instructions
http://www.wachendorff-automation.com/gtd

Options
http://www.wachendorff-automation.com/acc

Options

Shafts sealed to IP67, only with shaft Ø 10 mm	Order key
The encoder WDGA 58A EtherNet/IP can be supplied in a full IP67 version. Max. RPM: 3500 min'-1 Permitted Shaft-Loading: axial 100 N; radial 110 N Starting-torque: approx. 4 Ncm at ambient temperature	**AAO**

Shaft length 10 mm (Ø 6 mm)	Order key
The encoder WDGA 58A EtherNet/IP shaft: Ø 6 mm is also available with a shortened shaft L = 10 mm.	**AIX**

Example Order No.	Type		Your encoder
WDGA 58A	WDGA 58A		WDGA 58A
	Shaft	**Order key**	
06	Ø 6 mm Attention: No option AAO = full IP67 version	06	
	Ø 8 mm Attention: No option AAO = full IP67 version	08	
	Ø 10 mm	10	
	Ø 9.525 mm Ø 3/8" Attention: No option AAO = full IP67 version	4Z	
	Single-turn Resolution	**Order key**	
12	Single-turn resolution 1 up to 16 bit, e. g. 12 bit = 12	12	
	Multi-turn Resolution	**Order key**	
18	Multi-turn 18 bit: e. G. 18 bit = 18 e. G. 39 bit = 39	18	
	Data protocol	**Order key**	
EP	EtherNet/IP™ (with bus cover)	EP	EP
	Software	**Order key**	
U	up to date release	U	U
	Code	**Order key**	
B	binary	B	B
	Power supply	**Order key**	
0	10 V up to 32 V (standard)	0	0
	Galvanic isolation	**Order key**	
1	yes	1	1
	Electrical connections	**Order key**	
	Options	**Order key**	
	Shafts sealed to IP67, only with shaft Ø 10 mm	AAO	
	Shaft length 10 mm (Ø 6 mm)	AIX	
	Without option	Empty	

Example Order No.	WDGA 58A	06	12	18	EP	U	B	0	1			
	WDGA 58A				EP	U	B	0	1			Your encoder



For further information please contact our local distributor.
Here you find a list of our distributors worldwide.
https://www.wachendorff-automation.com/contact-sales-en/

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