



Online Data sheet

HM 2602

Encoder WDG N 36A

www.wachendorff-automation.com/wdgn36a

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

Encoder WDGN 36A via Smartphone (NFC) configurable



Illustration similar



Wachendorff Apps WDGN

- Due to high quality electronics any number of pulses up to 16384 via NFC configurable
- HTL/TTL via NFC configurable
- Protection class IP67, at shaft input IP65
- High output frequency up to 1 MHz
- Reverse polarity protection and short-circuit protection at 4.75 VDC to 32 VDC

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Configurable via NFC

Resolution	
Pulses per revolution PPR	1-16384 configurable ppr
Mechanical Data	
Flange	servo flange
Flange material	aluminum
Housing material	Stainless steel, NFC cover: Thermoplastic polyamide
Flange diameter	Ø 36 mm [Ø 1.417"]
Shaft(s)	
Shaft material	stainless steel
Starting torque	approx. 0.3 Ncm [0.425 in-ozf] at ambient temperature
Shaft	Ø 6 mm [Ø 0.236"]
Shaft length	L: 11.5 mm [0.453"]
Max. Permissible shaft loading radial	80 N [8.157 kp]
Max. Permissible shaft loading axial	50 N [5.098 kp]
Bearings	
Bearings type	2 precision ball bearings
Nominal service life	1.4 x 10 ⁸ revs. at 100 % rated shaft load 2 x 10 ⁹ revs. at 40 % rated shaft load 1.7 x 10 ¹⁰ revs. at 20 % rated shaft load
Max. operating speed	12000 rpm
Machinery Directive: basic data safety integrity level	
MTTF _d	1200 a
Mission time (TM)	25 a
Nominal service life (L10h)	1.7 x 10 ¹⁰ revs. at 20 % rated shaft load and 12000 rpm
Diagnostic coverage (DC)	0 %
Electrical Data	
Power supply VDC	4.75 - 32 VDC
Current consumption	typ. 80 mA
Signal shape	square-wave
Output circuit	configurable HTL, TTL (A,B,N + inv.)
Channels	AB, ABN, and inverted signals
Output	push-pull
Load	max. 40 mA / channel
Signal level mA	at 20 mA

Signal level H>	HTL: H > UB - 2.5 VDC; TTL: H > 2.5 VDC
Signal level L	L < 2.5 VDC
Output frequency	HTL: max. 600 kHz; TTL: max. 1 MHz
Circuit protection	no
Light reserve warning	no

Configurable via NFC:

BASIC: (BAS)

Channels:	ABN and inverted
HTL / TTL	freely selectable
Pulses / revolution:	1 ppr up to 16384 ppr freely selectable

Advanced (ADV):

Channels:	4 channels configurable + inv. signals (ABN possible)
HTL / TTL:	freely selectable
Pulses / revolution:	1 ppr up to 16384 ppr freely selectable
Number of pulses for each channel:	individually selectable
Set zero pulse:	yes
Pulse width and position:	Width and position adjustable

Environmental data

Noise immunity:

ESD (DIN EN 61000-4-2):	8 kV
EMC: (DIN EN 61000-4-3):	10 V/m
Burst (DIN EN 61000-4-4):	2 kV
High frequency fields (DIN EN 61000-4-6):	10 V
Surge (DIN EN 61000-4-5):	2 kV
Radio interference:	According DIN EN 55011

NFC:

EMC:	According ETSI EN 301 489
RED:	According ETSI EN 300 330
Electrical safety:	DIN EN 61010-1 (VDE 0411-1) / IEC 61010-1 / UL 61010-1 / CSA C22.0 No 61010-1-12
Vibration: (DIN EN 60068-2-6)	300 m/s ² (10 Hz up to 2000 Hz)
Shock: (DIN EN 60068-2-27)	1000 m/s ² (6 ms)

Duty information

Customs tariff number:	90318020
Country of origin:	Germany

General Data

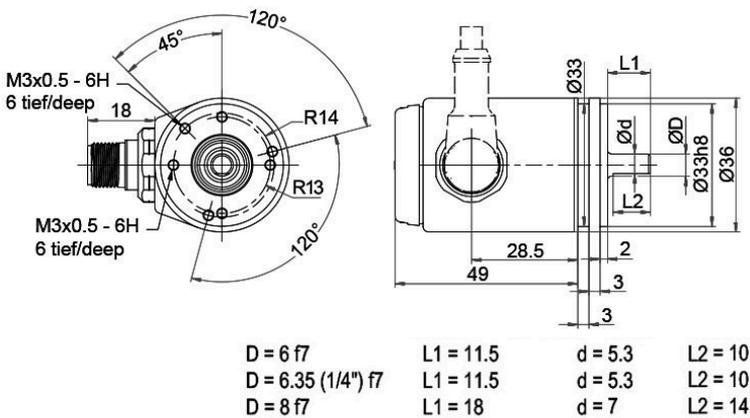
Weight	approx. 130 g [4.586 oz]
Connections	cable or connector outlet
Protection rating (EN 60529)	Housing: IP65, IP67; shaft sealed: IP65; cable outlet K1: IP40
Operating temperature	Connector: -40 °C up to +85 °C, Cable: -20 °C up to +80 °C. Connector: -40 °F up to +185 °F, Cable: -4 °F up to +176 °F.
Storage temperature	Connector: -40 °C up to +100 °C, Cable: -30 °C up to +80 °C Connector: -40 °F up to +212 °F, Cable: -22 °F up to +176 °F

More Information

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

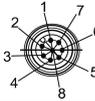
Options
<http://www.wachendorff-automation.com/acc>

Sensor-connector (M12x1) SC radial, 8-pin (BAS)



Alle Abmessungen in mm / All dimensions in mm

Description	ABN inv. poss.
SC8 radial, 8-pin, Connector connected to encoder housing	•

Assignments	
	SC8
	8-pin
	
Circuit	BAS
GND	1
(+) Vcc	2
A	3
B	4
N	5
A inv.	6
B inv.	7
N inv.	8

Example Order No.	Type				Your encoder
WDGN 36A	WDGN 36A				WDGN 36A
	Shaft				
06	06				06
	Pulses per revolution PPR:				
1-16384 configurable	1-16384 configurable				1-16384 configurable
	Channels:				
ABN	ABN				ABN
	Output circuit				
BAS	Resolution PPR	Power supply VDC	Output circuit	-	Order key
	configurable 1-16384	4.75 - 32	configurable HTL, TTL (A,B,N + inv.)	-	BAS
	Electrical connections				
SC8	Description		ABN inv. poss.	Order key	
	Connector: (shield connected to encoder housing) sensor-connector, M12x1, 8-pin, radial		•	SC8	
	Options				
	Description		Order key		
	Low-friction bearings		AAC		
	Cable length		Cable length		
	Without option		Empty		

Example Order No.=	WDGN 36A	06	1-16384 configurable	ABN	BAS	SC8		WDGN 36A	06	1-16384 configurable	ABN	BAS	SC8		Your encoder
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