



Stainless steel housing Ø 100 x 160 mm
 Optional water- or air-cooling, electrical heating
 against condensing of humidity
 Protection IP 67



Robust Encoder AWG 101 / ED 58

Optical incremental encoder AWG101, For operation at rough conditions

Resolution

Resolution (Pulses/Revolution):

Jede Auflösung von 1 - 6000	7000	7200	7500
8000	8192	9000	9144
10000			
Every other resolution up to 500 000 on request			

Type explanation

AWG101 /ED58-6-2500-30-P-RC12

Robust Encoder	AWG101
Stainless steel housing	Yes
Encoder type	Incremental
Flange diameter	Ø 100 mm
Case diameter	Ø 100 mm
Number of channels	3 = A + B + M 6 = AA + BB + MM
Resolutions	xxxx = Impulse pro Umdrehung
Supply voltage	05 = 5 VDC ± 5% 30 = 10..30 VDC
Output driver	D-RS422 P S
Position of connection	R S
Connector	C12 = 12 pins M23 M10 = 10 pins MIL
Shaft diameter	Ø 10 mm

Technical data

Mechanical data

Rotational speed	$\leq 5000 \text{ min}^{-1}$
Breakaway torque	$\leq 15 \text{ Ncm}$
Loading of bearings	1500 N radial 1000 N axial
Angular acceleration	$\leq 10^4 \text{ rad/sec}^2$
Weight	$\leq 6 \text{ kg}$
Case	Stainless steel 1.43.01 / AISI 304
Sealings	Viton

Environmental conditions

Vibration	200 ms^{-2} (50 Hz / 1h)
Shock	2000 ms^{-2} (11 ms)
Operating temperature	0 .. +80°C standard -40 .. +200°C optional
Atmospheric humidity	$\leq 95\% \text{ r.h.}$
Protection class	IP 67 (DIN 40050/IEC 144)

Electrical data

Scanning type	Optical, without contact
Transmitter, infrared	LED
Receiver	Photo-Transistor
Measurement accuracy	$\pm 1'$ standard
Supply voltage	$V_{cc} = 5 \text{ VDC} \pm 5\%$ $V_{cc} = 10 \dots 30 \text{ VDC}$
Power consumption	200 mA max.
Output frequency	$\leq 300 \text{ kHz}$ (Output D) $\leq 160 \text{ kHz}$ (Output P, S)
Signal level	High $> V_{cc} - 2 \text{ V}$ (Output D, P) Low $< 0,5 \text{ V}$ (Output D, P) Analog 1 V_{ss} (Output S)
Load capacity of the outputs	20 mA, kurzschlußfest, verpolungssicher Short-circuit proof, protection against reverse connection of supply voltage

AWG options

Electrical heating

Temperature control	Thermostat +5° / +15°C
Power consumption	18 W (12 V / 1,5 A) 72 W (24 V / 3,0 A)

Forced-air cooling

Pressure reducing valves	1 bar, input and output
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Water cooling

Cooling-helix	Copper pipe 3/8" with 2 chromed 5/8" hose couplings
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Cable

Wire colour	Signal
Brown 0,5 mm ²	+Vcc
Blue	+Vcc Sense ¹⁾
White/Green	0 V GND
White	0 V Sense
Brown	Signal A+
Green	Signal A- ²⁾
Grey	Signal B+
Pink	Signal B- ²⁾
Red	Signal M+
Black	Signal M- ²⁾
Shield	N.C.

1) nur bei Vcc = 5 VDC TTL

2) nur bei 6 Ausgangskanälen

Connector 12 pins M23

Connection	Signal
Pin 1	Signal B- ¹⁾
Pin 2	+Vcc Sense ²⁾
Pin 3	Signal M+
Pin 4	Signal M- ¹⁾
Pin 5	Signal A+
Pin 6	Signal A- ¹⁾
Pin 7	N.C.
Pin 8	Signal B+
Pin 9	Shield
Pin 10	0 V GND
Pin 11	0 V Sense
Pin 12	+Vcc

1) nur bei 6 Ausgangskanälen

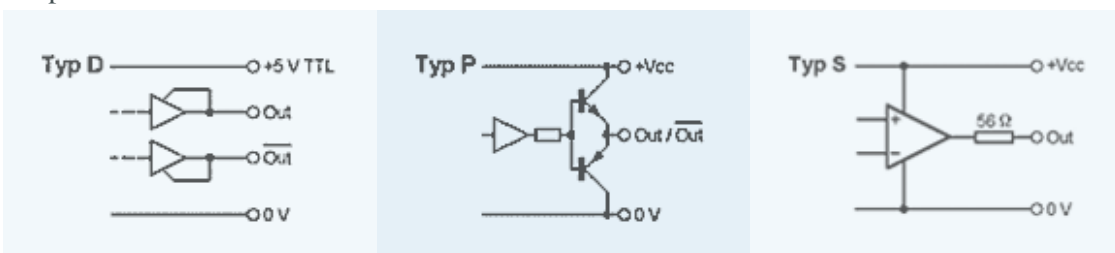
2) nur bei Vcc = 5 VDC TTL

Connector 10 pins MIL

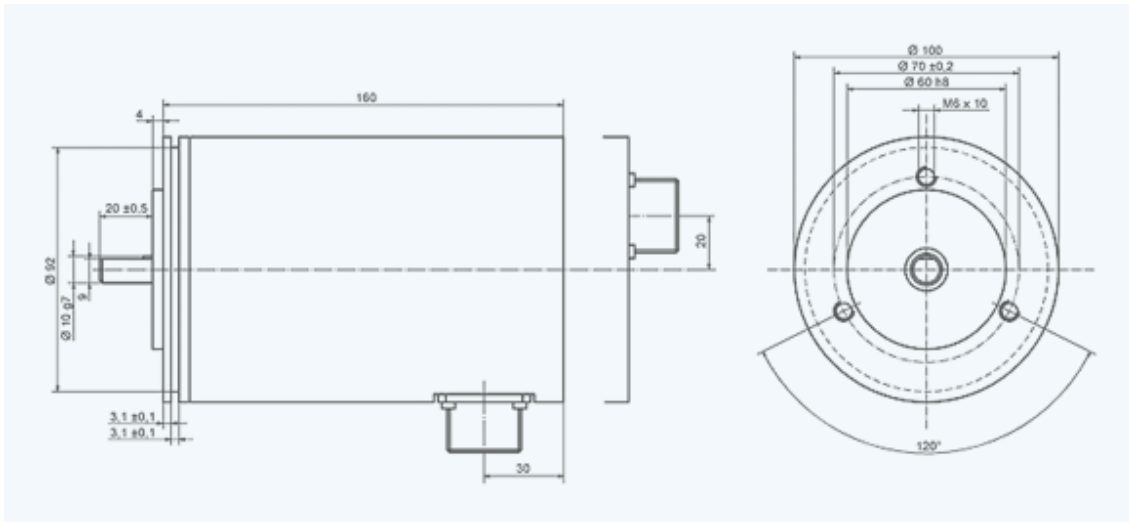
Connection	Signal
Pin A	Signal B+
Pin B	Signal A+
Pin C	Signal M+
Pin D	+Vcc
Pin E	+Vcc Sense
Pin F	0 V GND
Pin G	Shield
Pin H	Signal B- ¹⁾
Pin I	Signal A- ¹⁾
Pin J	Signal M- ¹⁾

1) nur bei 6 Ausgangskanälen

Output driver



Outline drawing



Version E 620-304 · Subject to change

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