

Incremental encoders

Solid shaft ø6 mm with synchro flange

100...512 pulses per revolution (OG 6), 10...10000 pulses OG60)

OG 6, OG 60



OG 60

Technical data - electrical ratings

Consumption w/o load	< 100 mA
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output signals	K1, K2, K0 + inverted
Output stages	HTL TTL/RS422
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-3
Approvals	CE, RoHS, UL approval / E256710

OG 6

Voltage supply	9...26 VDC 5 VDC ±5 % 9...24 VDC
Pulses per revolution	100...512
Phase shift	90° ±20°
Scan ratio	40...60 %
Output frequency	≤120 kHz

OG 60

Voltage supply	9...26 VDC 5 VDC ±5 %
Pulses per revolution	10...10000
Phase shift	90° ±8°
Scan ratio	46...54 %
Output frequency	≤250 kHz

Features

- Robust aluminium housing
- Encoder with solid shaft ø6 mm
- Optical sensing
- Synchro flange
- Logic level TTL with regulator
OG 6: UB 9...24 VDC, OG 60: UB 9...26 VDC

Optional

- OG 60: Right angel flange socket

Technical data - mechanical design

Size (flange)	ø58 mm
Shaft type	ø6 mm solid shaft
Shaft loading	≤50 N axial ≤60 N radial
Flange	Synchro flange
Operating speed	≤12000 rpm (mechanical)
Operating torque typ.	1 Ncm
Materials	Housing: aluminium Shaft: stainless steel

OG 6

Protection DIN EN 60529	IP 54
Rotor moment of inertia	18 gcm ²
Operating temperature	-20...+70 °C
Resistance	IEC 60068-2-6 Vibration 10 g, 10-2000 Hz IEC 60068-2-27 Shock 100 g, 6 ms
Connection	Connecting terminal
Weight approx.	300 g

OG 60

Protection DIN EN 60529	IP 65
Rotor moment of inertia	22 gcm ²
Operating temperature	-30...+85 °C
Resistance	IEC 60068-2-6 Vibration 10 g, 10-2000 Hz IEC 60068-2-27 Shock 300 g, 6 ms
Connection	Flange connector M23, 12-pin Mating connector
Weight approx.	400 g

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Part number

Incremental encoder

OG 6

Voltage supply / signals
C 9...26 VDC / output circuit HTL (C) (for output signals D)
CI 9...26 VDC / output circuit HTL (C) with inverted signals (for output signals DN)
TTL 5 VDC / output circuit TTL with inverted signals
R 9...24 VDC / output circuit TTL with inverted signals (for output signals DN)

Pulse number - see table

Output signals
D K1, K2
DN K1, K2, K0

Pulse number

100	200	360	500	512
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Other pulse numbers on request.

Incremental encoder

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Voltage supply / signals
CI 9...26 VDC / output circuit HTL (C) with inverted signals
TTL 5 VDC / output circuit TTL with inverted signals
R 9...26 VDC / output circuit TTL with inverted signals

Pulse number - see table

Output signals
DN K1, K2, K0

Pulse number

10	300	625	1800	4096
20	360	720	2000	5000
60	400	900	2048	6000
100	500	1000	2500	8192
200	512	1250	3000	10000
256	600	1500	3600	

Other pulse numbers on request.

Accessories

Eccentric disks
(clamping claws)

Connectors and cables

HEK 8 Sensor cable for encoders

Mounting accessories

K 35 Spring disk coupling
for solid shaft ø6...12 mm

Diagnostic accessories

HENQ 1100 Analyzer for encoders

Incremental encoders

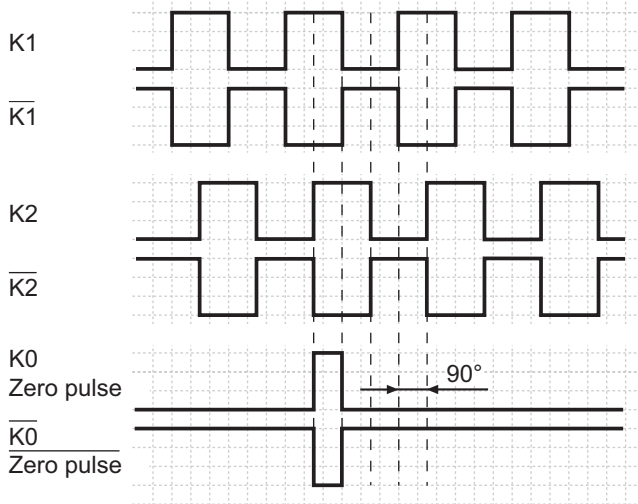
Solid shaft $\varnothing 6$ mm with synchro flange

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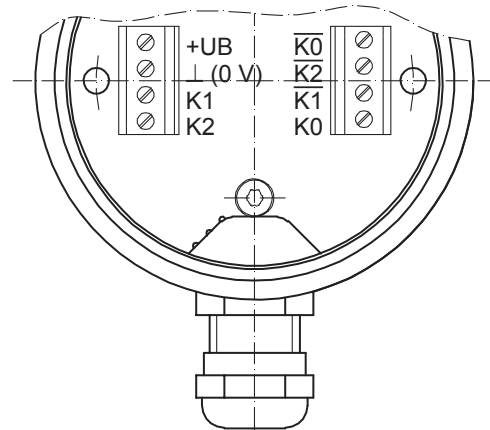
Output signals

At positive rotating direction



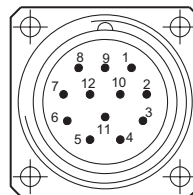
Terminal assignment

View A - Connecting terminal OG 6



View B- Flange connector M23 OG 60, 12 pin, male contacts, CW

Pin	Assignment
1	$\overline{K2}$ (K2 inv.)
2	Do not use
3	K0 (Zero pulse)
4	$\overline{K0}$ (Zero pulse inv.)
5	K1
6	$\overline{K1}$ (K1 inv.)
7	Do not use
8	K2
9	Do not use
10	0 V
11	Do not use
12	+UB



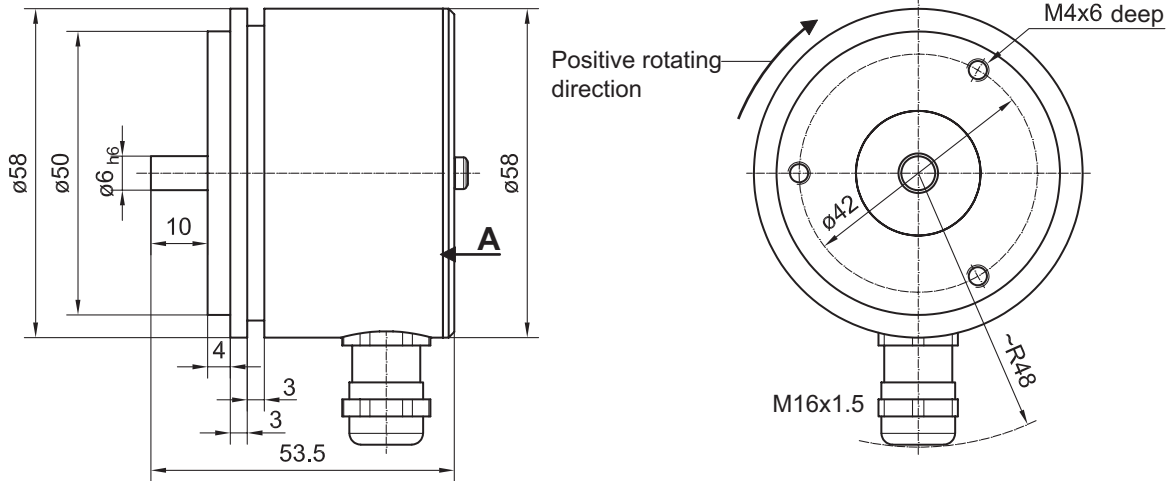
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Dimensions

OG 6



OG 60

