hohner
Elektrotechnik Werne

Series 72

- Multi-turn rotary encoder with shaft
- Measuring range greater than 360°
- Multi-plate technology
- 18-bit wider C'Mos counter
- Integrated accumulator
- Additional filter circuits

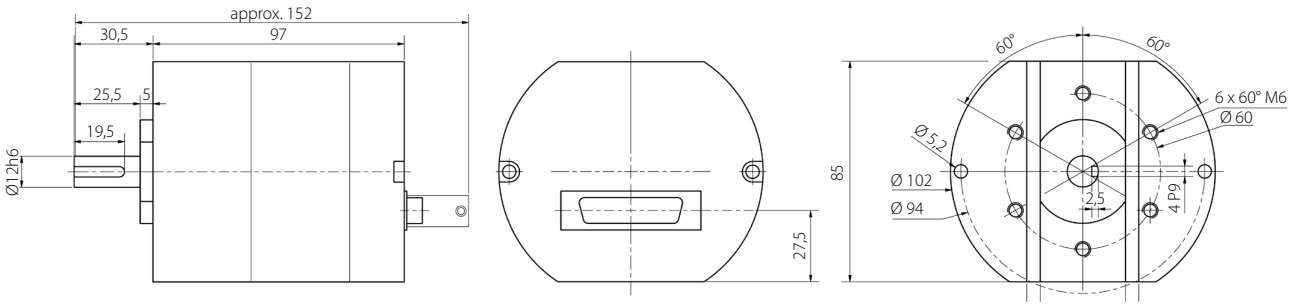
Electrical specifications

Max. step frequency:	25 kHz
Perm. temperature range:	-30°. . . +70° C
Power supply:	10 V. . . 30 V DC
Max. current consumption:	120 mA
Power failure safety:	max. 48 hrs.

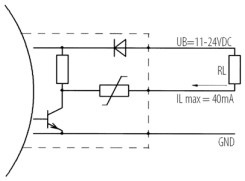
Mechanical specifications

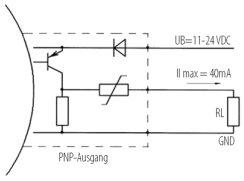
Housing:	Zinc die-casting
Flange:	Zinc die-casting
Shaft:	stainless steel 12 mm
Bearing:	Deep groove ball bearing
Weight:	approx. 1.2 kg
Protection type:	IP 54 according to DIN 40050
Max. speed:	6000 U/min
Moment of inertia:	270 gcm^2
Torque:	3 Ncm
Max. shaft load:	axial 10 N radial 10 N

Mechanical dimensions



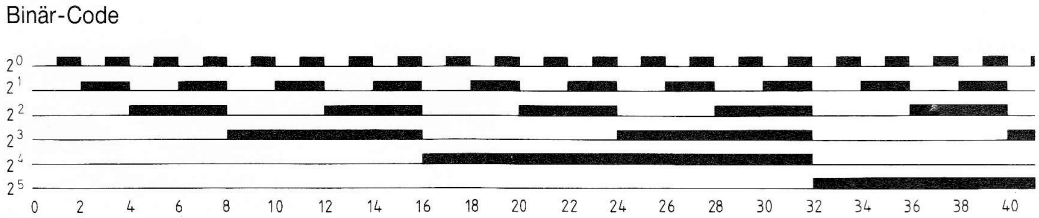
Output circuits

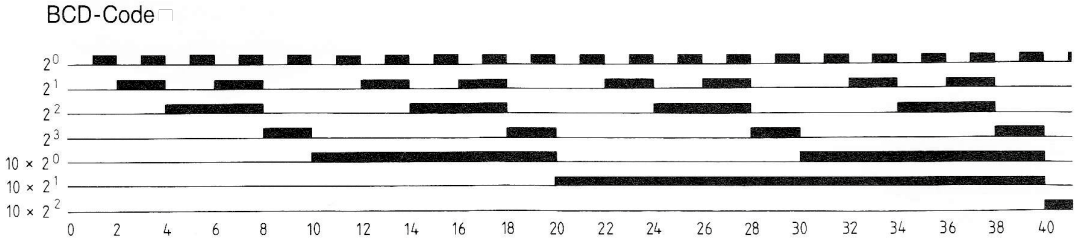




Order ref.: NPN PNP

Output signals





Order reference

Serie 72 | 1 | 4 | 0 | U | | | – | | Division up to max. 2600 (as of 2, each division available by 2)

Mech. Design
140 = Standard

Coding + Count direction
U* = Bin ⟷ 18-bit = 262 144
or
BCD ⟷ 18-bit = 39 999

* reversible

Output circuit
N = NPN (current sink)
P = PNP (current source)

Modification
B = without buffer
C = Standard
D = Reset pulse
K = Cable output

Special versions (upon request)

- External buffering
- Without buffering
- Cable output
- Flange-triggered reset pulse

Functional description of the control inputs

Pin	Desc.	Explanation
25 *	Reset Acknowledgement Alarm	A signal (+ Ub) resets the internal counter. The alarm output is acknowledged at the same time.
24 *	Code Selection of output code	A signal (+ Ub) switches the code type from binary to BCD code
23 *	Change of counting direction	A signal (+ Ub) changes the counting direction. Looking at the shaft: Sequence of numbers increasing for an anticlockwise shaft)
22	Alarm/Relay output Unilateral mass of switching	When the internal battery no longer has sufficient voltage and counting errors could arise, this is indicated by resetting the output. Furthermore, the internal power supply is monitored during operation.

* All control inputs are switched via octocoupler

Functional description of alarm output: (after applying the operating voltage)

The counter is reset and the alarm output is acknowledged by resetting.

The alarm output is only set when the battery voltage has exceeded a certain value during actuation of the reset.

This depends on the battery discharge and can take a few minutes.

If the reset is controlled with a static signal of + Ub, the release of the count is signalled by setting the alarm output.

Options:

Option1/Pin 21: Acknowledgement input for alarm signal independent of reset

Option2/Pin 21.22: Potential-free relay contact for alarm signal

Pin configuration type 72-140 U. . .

Pin	25-pole connector			Wire colour at cable output (DIN 47 100)
	Valence for binary code	Valence for BCD code		
1 2	– +	– +		white brown
3 4 5 6	2^0 2^1 2^2 2^3	1 2 4 8	x 10^0	green yellow grey pink
7 8 9 10	2^4 2^5 2^6 2^7	1 2 4 8	x 10^1	blue red black purple
11 12 13 14	2^8 2^9 2^{10} 2^{11}	1 2 4 8	x 10^2	grey-pink blue-red white-green brown-green
15 16 17 18	2^{12} 2^{13} 2^{14} 2^{15}	1 2 4 8	x 10^3	white-yellow yellow-brown white-grey grey-brown
19 20	2^{16} 2^{17}	1 2	x 10^3	white-pink pink-brown
21 22 23 24 25	Option Alarm ↔ Binary / BCD Reset	Option Alarm ↔ Binary / BCD Reset		white-blue brown-blue white-red brown-red white-black