

Heavy Duty Series

End hollow shaft $\varnothing 12 \dots 16$ mm, cone shaft $\varnothing 17$ mm
1000...10000 pulses per revolution



FHD H100

with redundant option



Features

- Robust, compact housing
- Two bearings with large distance
- High shaft load up to 400 N
- Highest operating speed 10000 rpm
- Terminal box, M23 connector, Cable options

Technical data - electrical ratings

Voltage supply	9...30 VDC 5 VDC $\pm 5\%$
Consumption w/o load	≤ 100 mA
Pulses per revolution	1000...10000
Phase shift	$90^\circ \pm 15^\circ$
Scan ratio	45...55 %
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	≤ 200 kHz
Output signals	A, B, Z + inverted
Output stages	push-pull TTL/RS422
Shaft insulation	2.8 kV
Transmission length	≤ 400 m at 100kHz
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-3
Approvals	CE

Technical data - mechanical design

Size (flange)	$\varnothing 100$ mm
Shaft type	$\varnothing 12 \dots 16$ mm (blind hollow shaft) $\varnothing 17$ mm (cone shaft 1:10)
Shaft loading	≤ 300 N axial ≤ 400 N radial
Motor shaft tolerance	0.2 mm radial
Protection DIN EN 60529	IP 66
Operating speed	≤ 10000 rpm (mechanical)
Operating torque	≤ 6 Ncm
Rotor moment of inertia	160 gcm ²
Materials	Housing: coated aluminium Shaft: stainless steel
Operating temperature	$-40 \dots +100$ °C $-40 \dots +90$ °C
Connection	Terminal box Flange connector M23, 12-pin Cable 1 m
Weight approx.	1.1 kg

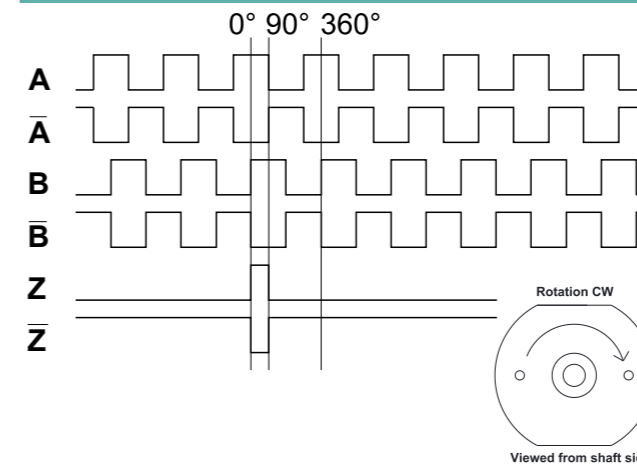
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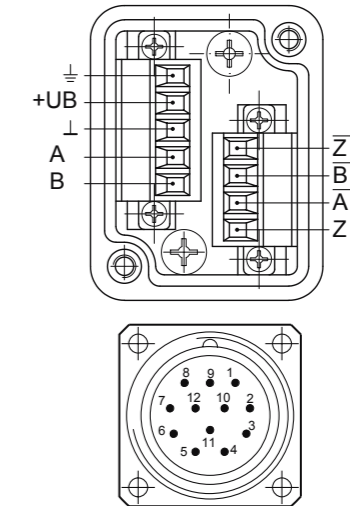
Output signals



Terminal assignment

FHD H100

Connecting terminal terminal box

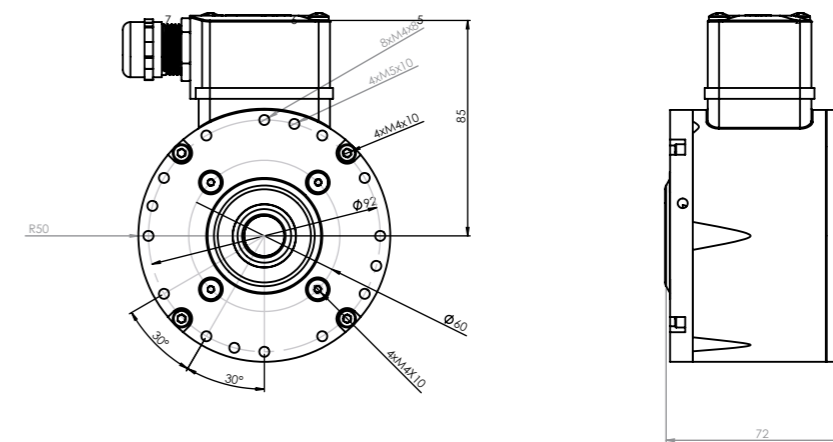


FHD H100

Flange connector
M23, 12-pin, male, CW

Pin	Assignment
1	\overline{B}
2	nc
3	Z
4	\overline{Z}
5	A
6	\overline{A}
7	nc
8	B
9, 10	nc
11	GND
12	+UB

Mechanical Dimensions



Encoder Part Number

FHD **HR** **100** **6** **DN** **30V** **1024** - **T**

H : Hollow shaft
HR : Hollow shaft redundant

Flange : 100mm

Shaft Diameter

10 : Blind hollow shaft $\varnothing 10$ mm
12 : Blind hollow shaft $\varnothing 12$ mm
16 : Blind hollow shaft $\varnothing 16$ mm
17 : C17 conic shaft $\varnothing 17$ mm

DN: ABZ + Inverted

Electrical Connections:

T : Terminal box
M : M23 12L pin connector
C : Cable
R : Redundant Dsub Connection

PPR Options :

1000 - 1024 - 2000 - 2048 - 2500 - 4096 - 5000 - 8092 - 10000

Supply Voltage and output circuit :

5V : 5V in / out
245V : 5-30V in 5V out
30V : 5-30V in / out