

Heavy Duty Redundant Series

End hollow shaft $\varnothing 12...16$ mm, cone shaft $\varnothing 17$ mm

1000...10000 pulses per revolution



**Two Redundant
&
Independent Outputs**

FHD RH100 Series



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

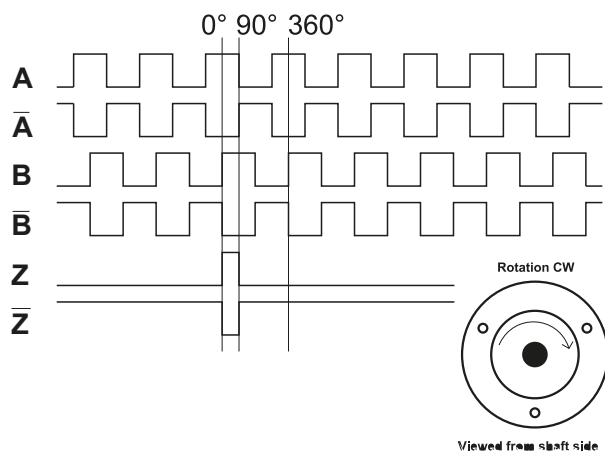
Technical data - electrical ratings

Voltage supply	9...30 VDC 5 VDC ± 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	$\varnothing 12...16$ 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...+100 °C -40...+90 °C
Connection	Terminal box Flange connector M23, 12-pin Cable 1 m
Weight approx.	1.1 kg

Output signals

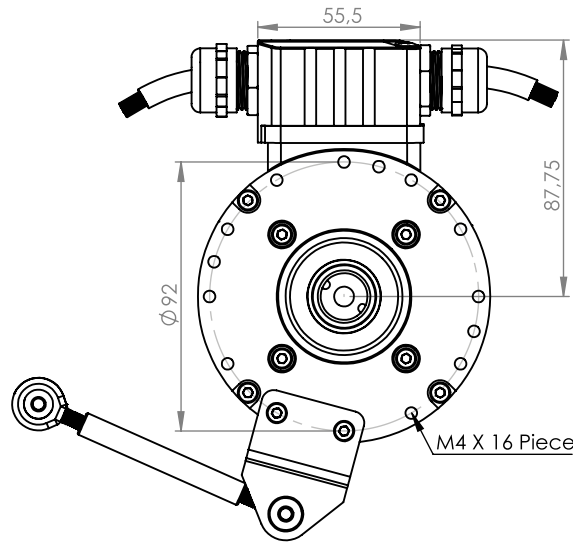


Heavy Duty Series

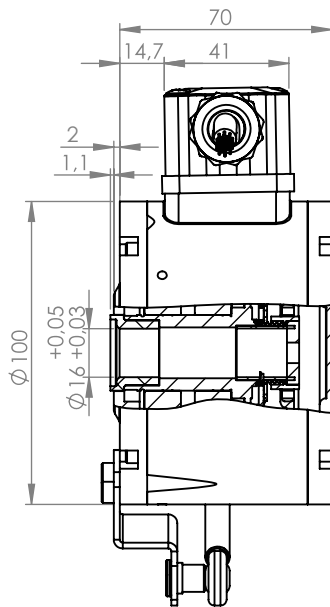
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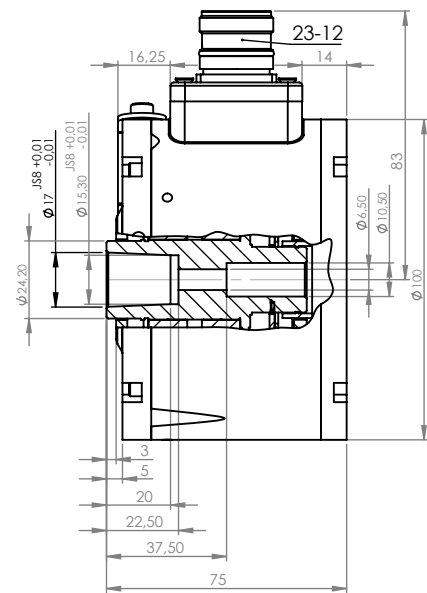
Mechanical Dimensions



End Hollow Shaft Version



Conic Shaft Version



Encoder Part Number

FHD **RH** **100** **16** **6** **30V** **1024** - **RS**

RH : 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

Output Channels

- 1 : A
- 2 : AB
- 3 : ABZ
- 4 : AB+A' B'
- 6 : ABZ+A' B' Z'

Electrical Connections:

- RS : Redundant Cable Connection Single
- RD : Redundant Cable Connection Double

PPR Options :

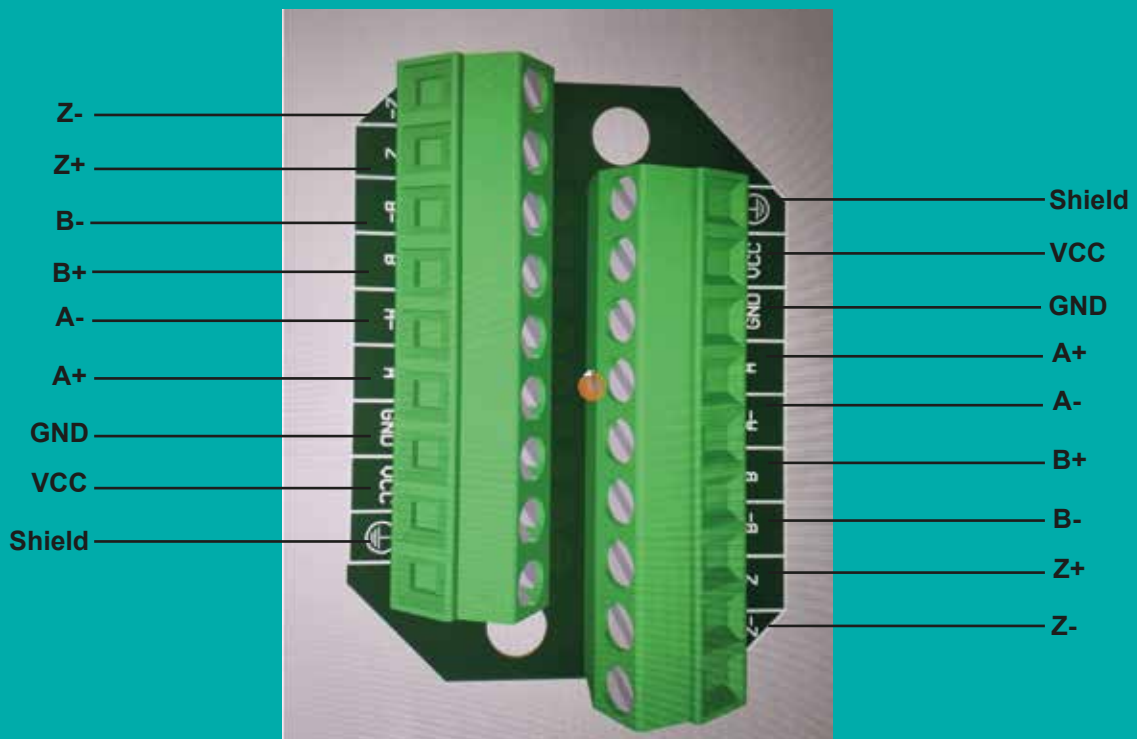
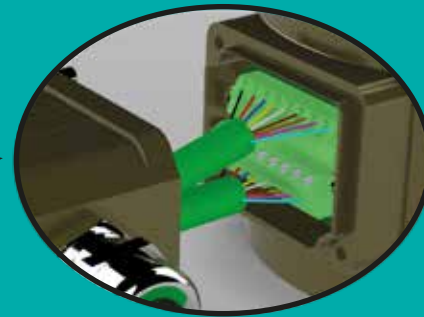
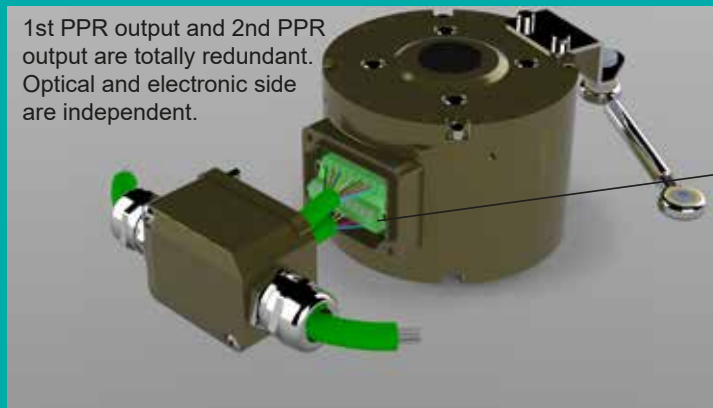
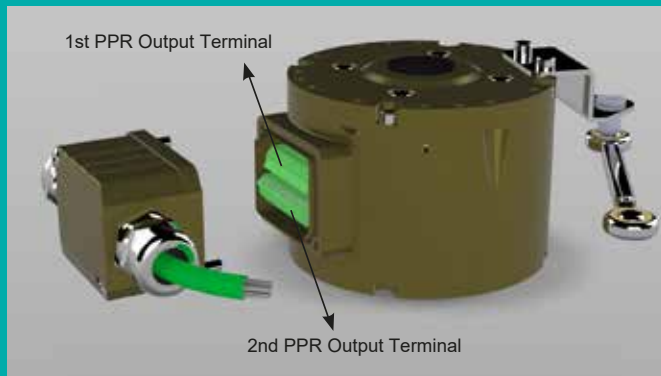
1000 - 1024 - 2000 - 2048 - 2500 - 4096 - 5000 - 8092 - 10000

Supply Voltage and output circuit :

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

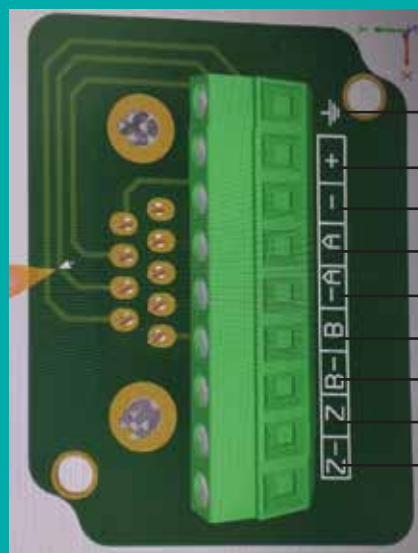
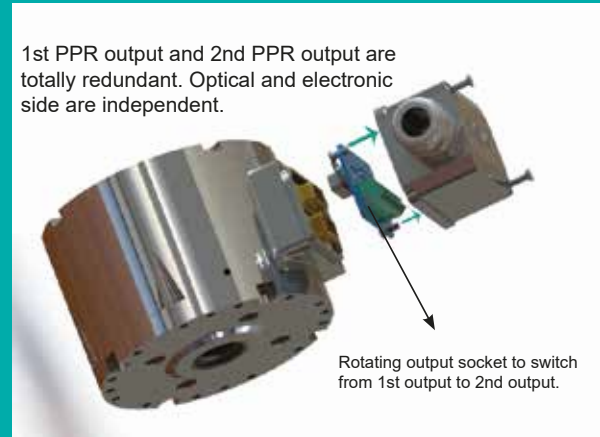
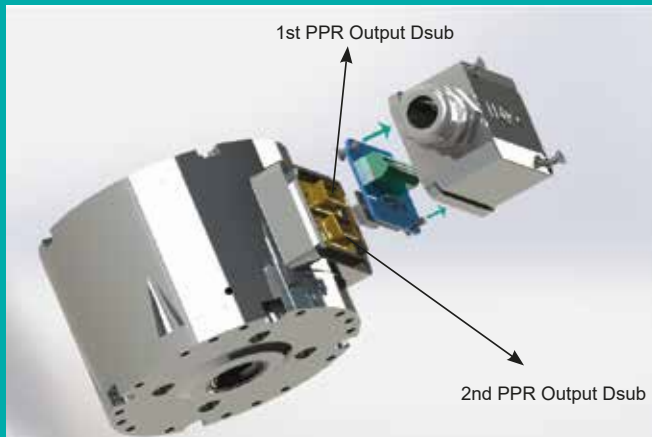
FHD RH100 Series

Redundant Double Terminal Assignment



FHD RH100 Series

Redundant Single Terminal Assignment



- Shield
- VCC
- GND
- A+
- A-
- B+
- B-
- Z+
- Z-