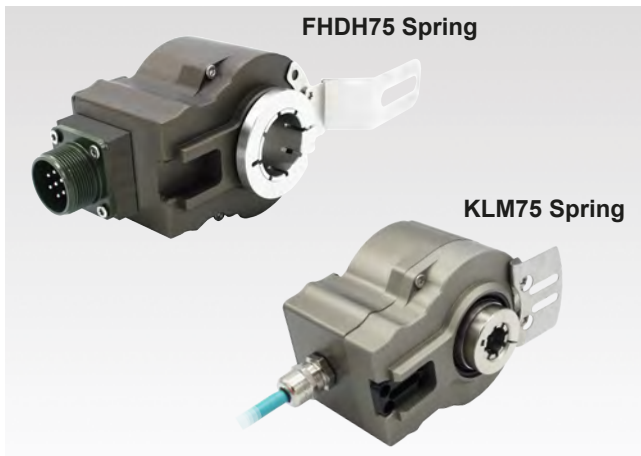


## FHD H75 Series



### Features

- Robust compact housing
- Two bearings with large distance
- High shaft load up to 400N
- Highest operating speed 10.000 rpm
- Terminal box, M2312, ML2507 ML3007, ML3010 connector, cable options

### Technical data - electrical ratings

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

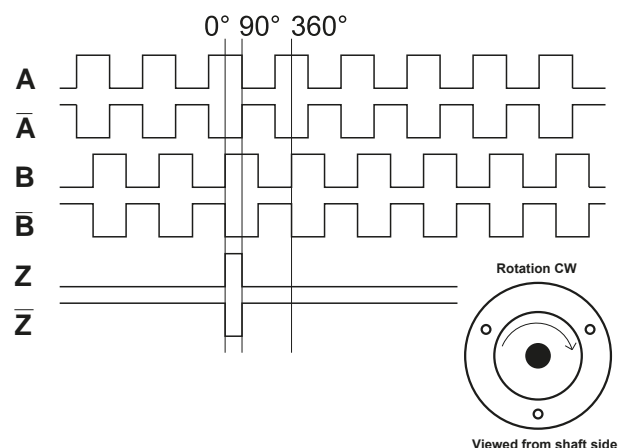
### Technical data - mechanical design

Size (flange)	$\varnothing 75$ mm
Shaft type	$\varnothing 8, 10, 12, 15, 16, 20, 25, 26$ mm
Shaft loading	$\leq 300$ N axial $\leq 400$ N radial
Motor shaft tolerance	0.2 mm radial
Protection DIN EN 60529	IP 66
Operating speed	$\leq 10000$ rpm (mechanical)
Operating torque	$\leq 6$ Ncm
Rotor moment of inertia	160 gcm <sup>2</sup>
Materials	Housing: coated aluminium Shaft: stainless steel
Operating temperature	$-40...+100^\circ\text{C}$ $-40...+90^\circ\text{C}$
Connection	Terminal box Flange connector M2312, ML2507, ML3007, ML3010 Cable 1m
Weight approx.	680 g

### Nominal Dimensions

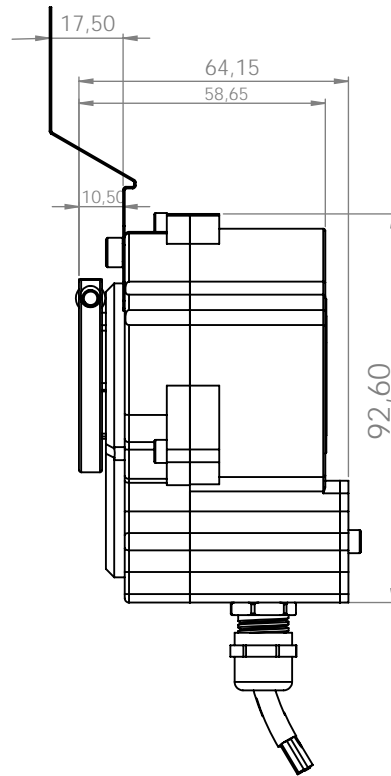
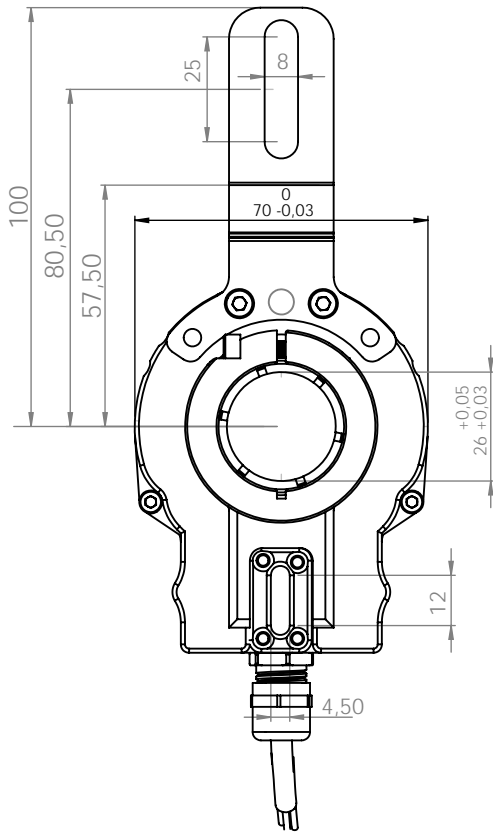
$\varnothing$ nominal dimension		$\varnothing$ nominal shaft dimension	
inch (in ")	metric (in mm)	inch (in ")	metric (in mm)
3,937008	100	1,023622	26
3,645669	92,6	0,984252	25
3,169291	80,5	0,7874016	20
2,755906	70	0,6299213	16
2,525591	64,15	0,5905512	15
2,309055	58,65	0,4724409	12
2,263780	57,5	0,3937008	10
1,023622	26	0,3149606	8
0,984252	25		
0,6889764	17,5		
0,4724409	12		
0,4133858	10,5		
0,3149606	8		
0,1771654	4,5		

### Output signals



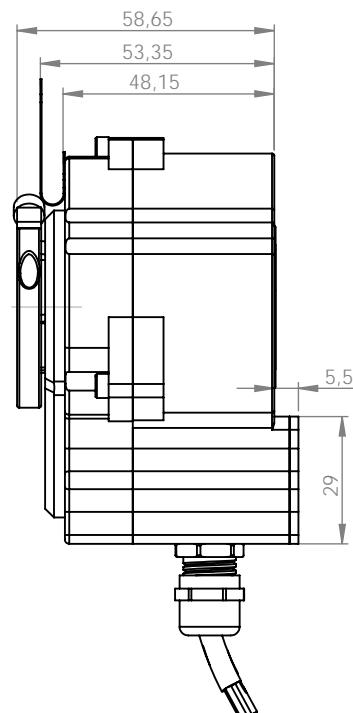
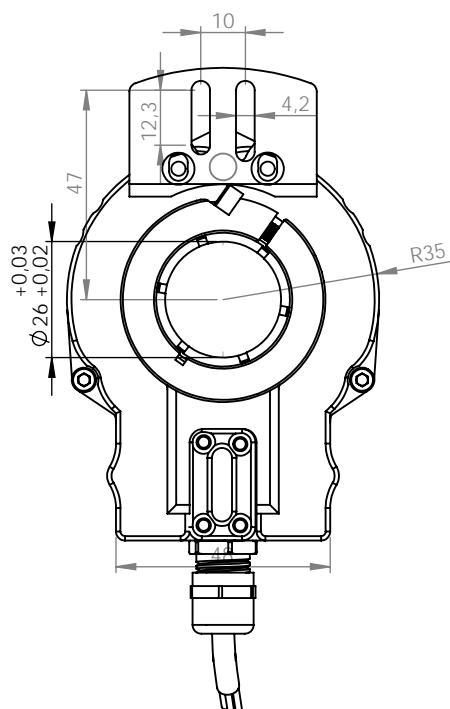
### Mechanical Dimensions

#### Cable version with FHDH75 Spring



R00 / 29.11.21

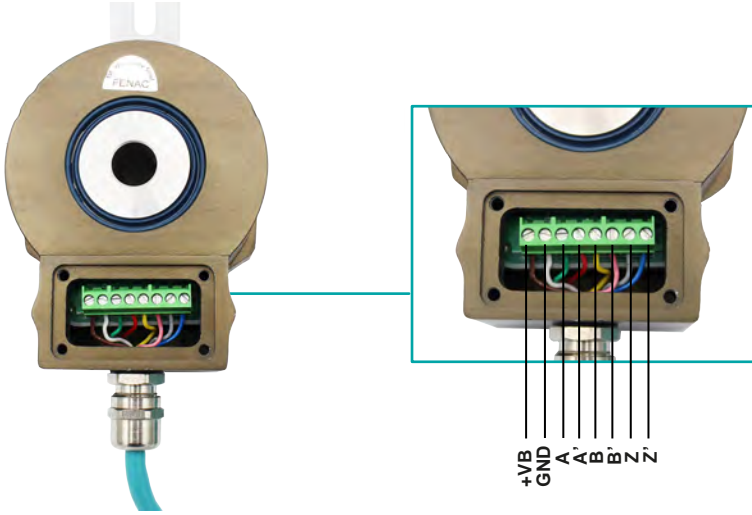
#### Cable version with KLM75 Spring



R00 / 01.06.22

## FHD H75 Series

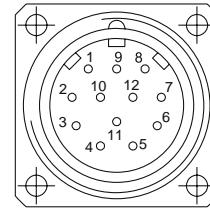
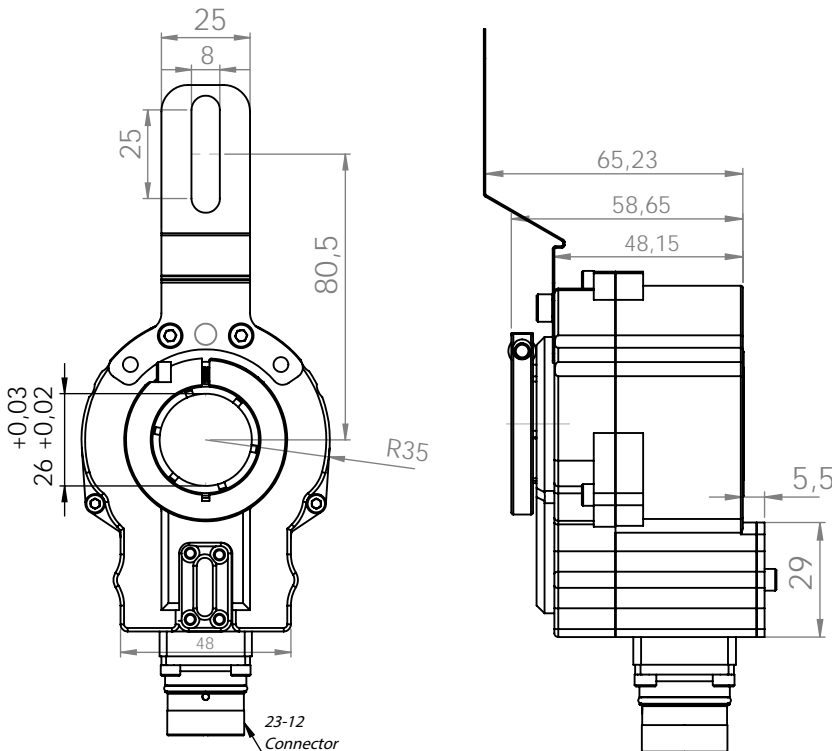
### Cable Wiring



Function	Color	Renk	Explanation
+VB	Brown	Kahve	Supply Voltage
GND	White	Beyaz	Ground
A	Green	Yeşil	A
A'	Red	Kırmızı	A' Inverted
B	Yellow	Sarı	B
B'	Pink	Pembe	B' Inverted
Z	Gray	Gri	Z
Z'	Blue	Mavi	Z' Inverted
Shield	Black	Siyah	Shield

### Mechanical Dimensions

#### M23 12 Pin version



M2312R

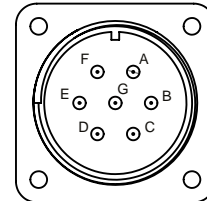
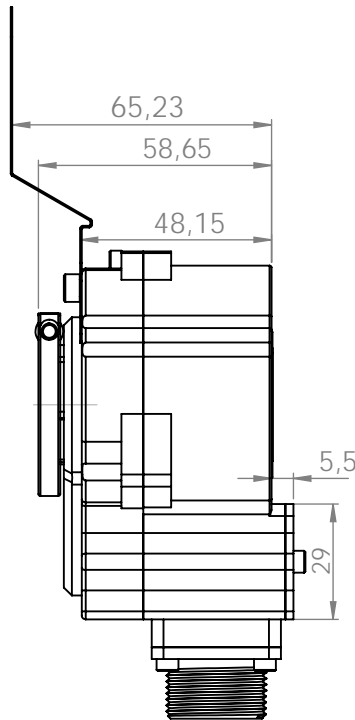
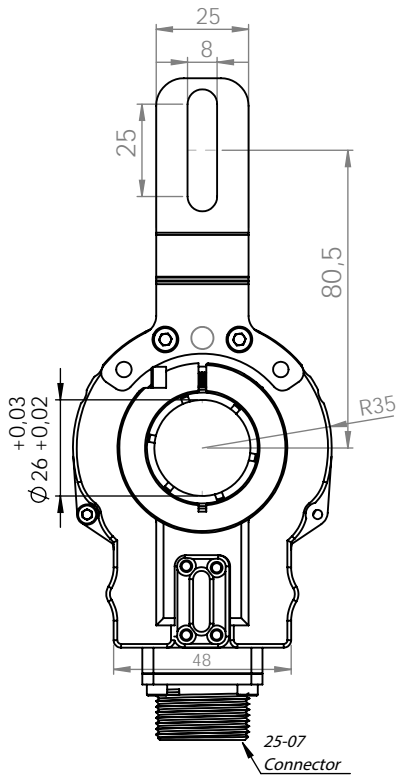
M2312R	Explanation
pin 2-12	Supply Voltage
pin 10-11	Ground
pin 5	A
pin 6	A' Inverted
pin 8	B
pin 1	B' Inverted
pin 3	Z
pin 4	Z' Inverted

## FHD H75 Series

### Mechanical Dimensions

### Connector Wiring

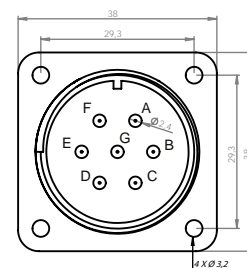
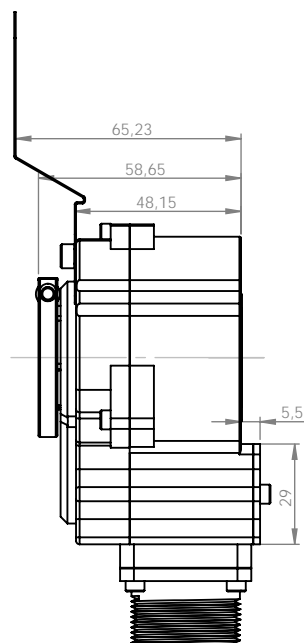
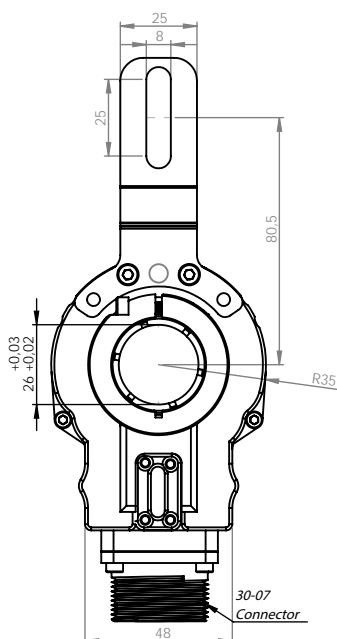
**M25 07 Pin Military Socket**



M2507	Explanation
pin A	B
pin B	A
pin C	B'
pin D	Supply Voltage
pin E	A'
pin F	Ground
pin G	Housing

T000 / 02.03.2022

**M30 07 Pin Military Socket**



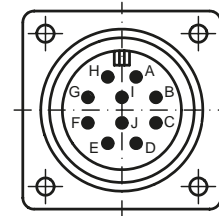
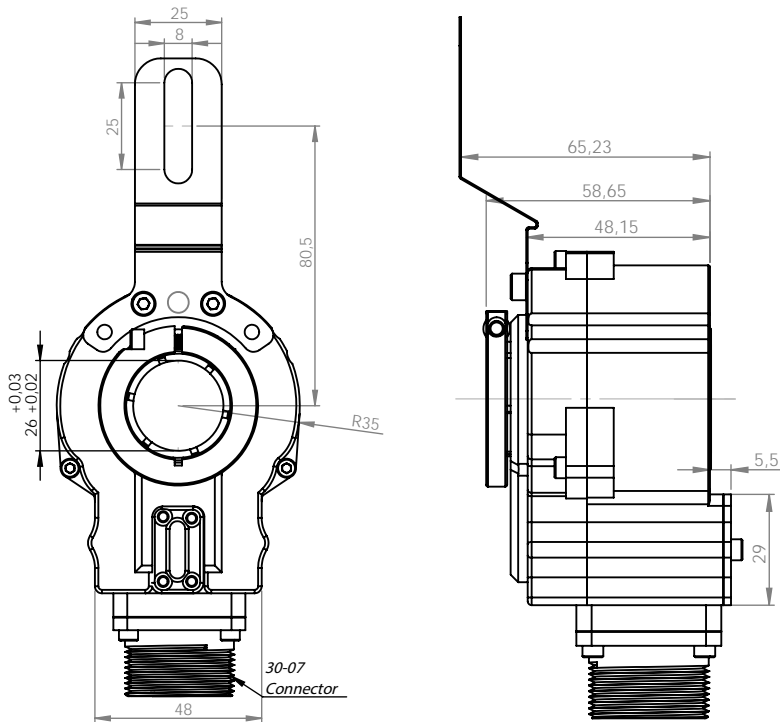
M3007	Explanation
pin A	A
pin B	B
pin C	Z
pin D	Supply Voltage
pin E	NC
pin F	Ground
pin G	Housing

T000 / 09.12.2021

## FHD H75 Series

### Mechanical Dimensions

#### M30 10 Pin Military Socket



M3007	Explanation
pin A	A
pin B	B
pin C	Z
pin D	Supply Voltage
pin E	NC
pin F	Ground
pin G	Housing
pin H	A' inverted
pin I	B' inverted
pin J	Z' inverted

T000 / 09.12.2021

### Encoder Part Number

