

Absolute encoders - BiSS C

Cone shaft

Optical singleturn encoders

EFL580 - BiSS C



EFL580 with cone shaft

Features

- Encoder singleturn / BiSS C
- Optical sensing method
- Resolution: singleturn 13 bit
- Additional incremental signals 2048 sine periods
- Cone shaft
- Operating temperature max. +105 °C

Optional

- Resolution 21 bit (for digital speed feedback)
- Alternative connectivity

Technical data - electrical ratings

Voltage supply	5 VDC ±10 %
Reverse polarity protection	Yes
Consumption w/o load	≤50 mA
Interfaces	BiSS C, SinCos
Function	Singleturn
Steps per turn	8192 / 13 bit
Incremental output	2048 sinewaves A, B, sine 1 Vpp
Sensing method	Optical
Code	Binary
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-4
Approval	UL approval / E63076

Technical data - mechanical design

Size (flange)	ø58 mm
Shaft type	9.25 mm cone shaft (1:10)
Protection DIN EN 60529	IP 64
Operating speed	≤6000 rpm (electric)
Rotor moment of inertia	20 gcm ²
Materials	Housing: aluminium Flange: aluminium
Operating temperature	-25...+105 °C
Relative humidity	95 % non-condensing
Resistance	DIN EN 60068-2-6 Vibration 30 g, 16-2000 Hz DIN EN 60068-2-27 Shock 200 g, 3 ms
Weight approx.	620 g (5 m cable), 940 g (Option: 10 m cable)
Connection	Cable 5 m with D-SUB, 15-pin Option: cable 10 m

Absolute encoders - BiSS C

Cone shaft

Optical singleturn encoders

EFL580 - BiSS C

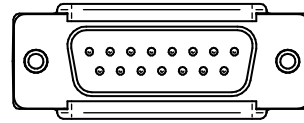
Part number

EFL580.C **R** **K** **.** **D** **J** **6B** **.** **13** **009**

Resolution
 13 13 bit singleturn
Voltage supply / interface
 6B 5 VDC, BiSS C, binary
Connection
 J Cable 5 m, tangential, SUB-D, 15-pin
Protection
 D IP 64
Mounting
 K ø9.25 mm cone shaft, center screw
Flange
 R With stator coupling ø72 mm

Terminal assignment

Connector	Assignment
Pin 1	A
Pin 2	GND
Pin 3	B
Pin 4	UB
Pin 5	Data+
Pin 6	–
Pin 7	–
Pin 8	Clock+
Pin 9	A inv.
Pin 10	GND-Sense
Pin 11	B inv.
Pin 12	UB-Sense
Pin 13	Data-
Pin 14	–
Pin 15	Clock-



Trigger level

BiSS C

BiSS C-Clock

BiSS C-Data

Circuit

RS422

Terminating resistor 220 Ω

RS422

Outputs

Output level

Load

Sine / Cosine

1 V_{pp} ±10 %

<10 mA

Absolute encoders - BISS C

Cone shaft

Optical singleturn encoders

EFL580 - BISS C

Dimensions

