

Hollow Shaft Optical Absolute Encoders



FNC TASO 30H Series



Features

- SSI or BiSS Interface Rotary Encoder
- Optical sensing
- Resolution up to 21 bit
- 30 mm diameter body
- 8 mm diameter hollow shaft

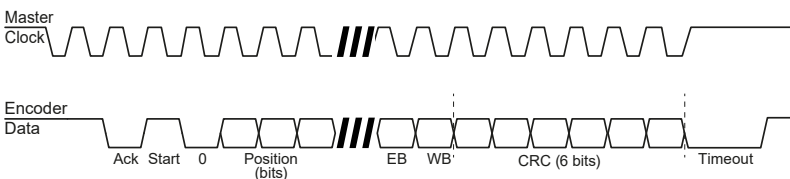
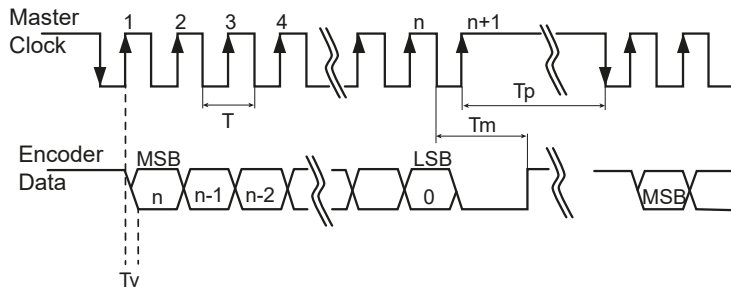
Technical data - Mechanical Ratings

Dimensions	30 mm
Shaft Diameter	8 mm
Materials	Housing : Aluminium Shaft : Stainless Steel
Operating Tem.	-40 to +85 °C

Technical data - Electrical Ratings

Supply Voltage	5V
Interface	SSI or BiSS
Protection	Reverse voltage protection Over voltage protection
Resolution (steps/turn)	up to 21 bit
Absolute accuracy	$\leq \pm 0.02^\circ$ after fine calibration

Pulse Diagram SSI / BiSS



Symbol Description

n Total number of data bits

T Clock Period

$f = 1/T$ Clock frequency

Tv Bit update time

Tp Pause time

Tm Monoflop time

ACK Absolute position one clock cycle

Start Encoder signal for "start" data transmit

"0" Start with follower

AP Absolute position data

EB Error bit

WB Warning bit

CRC Cyclic redundancy check

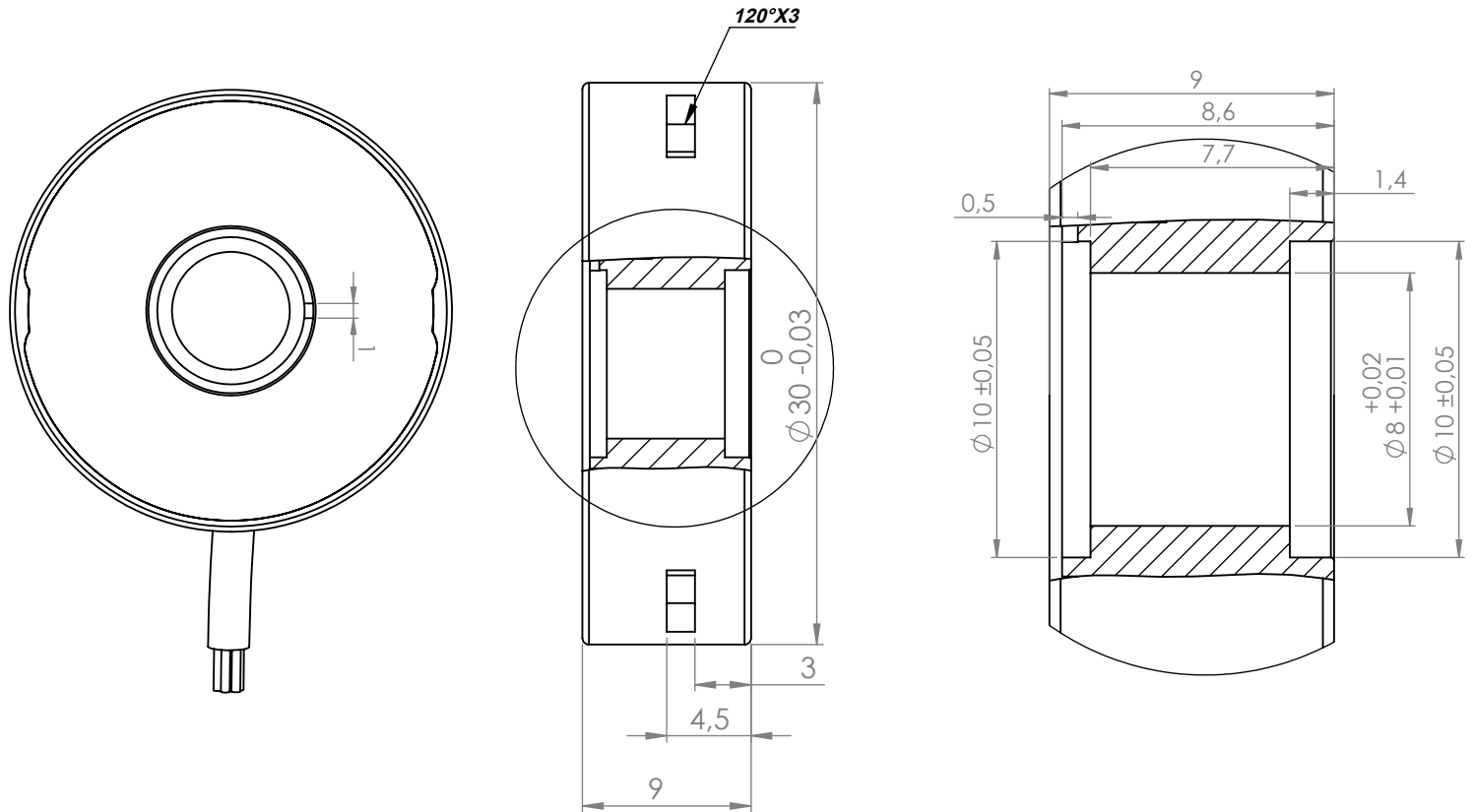
Timeout Elapse between the sequential "start" request cycle's

SSI DESCRIPTION

BISS DESCRIPTION

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Mechanical Dimensions



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Cable Wiring

Function	Color	Renk
+5V	 Brown	Kahverengi
GND	 White	Beyaz
Clock+	 Blue	Mavi
Clock-	 Blue-Black	Mavi-Siyah
Data+	 Orange	Turuncu
Data-	 Orange-Black	Turuncu-Siyah

Part Number

FNC TASO 30 H 8 S21 5V B – R02

TASO : Thin Absolute SSI Optical
TABO : Thin Absolute BiSS Optical

Housing
30 : 30 mm

8 : 8 mm

Singleturn resolution
S : Single Turn
up to 21 bit

Electrical Connections:

R02 : radial 20 cm, shield not connected (standart)
R02S : radial 20 cm, shield connected to housing

B : Binary **G** : Gray

Supply Voltage and output circuit :
5V : 5V in / out