

Incremental rotary encoder TH140P-1CAK2R6TN-01024

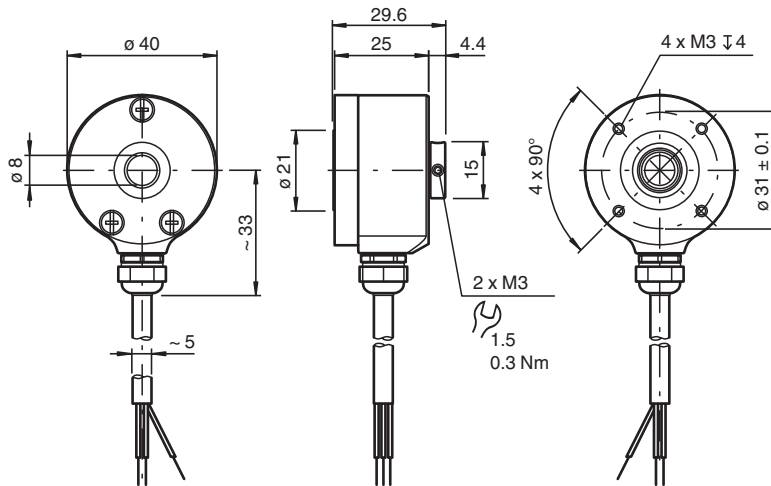
- Compact design
- 1024 ppr
- 4.75 V ... 30 V with short-circuit proof push-pull output
- Degree of protection IP65



Function

The TH140 continues the new economical target line of Pepperl+Fuchs. With a small outside diameter of 40 mm, the unit is ideal for use in industrial areas where very little space is available. The technology of the rotary encoder is adapted to the new requirements of the rotary encoder market. Innovative fast technology with Opto-ASIC forms the central basis of the device.

Dimensions



Technical Data

General specifications

Detection type	photoelectric sampling
Pulse count	1024

Electrical specifications

Operating voltage	U_B	4.75 ... 30 V DC
No-load supply current	I_0	max. 55 mA

Output

Output type	push-pull, incremental	
Voltage drop	U_d	≤ 2.5 V
Load current	max. per channel 30 mA , short-circuit protected	
Output frequency	max. 100 kHz	
Rise time	980 ns	

Technical Data

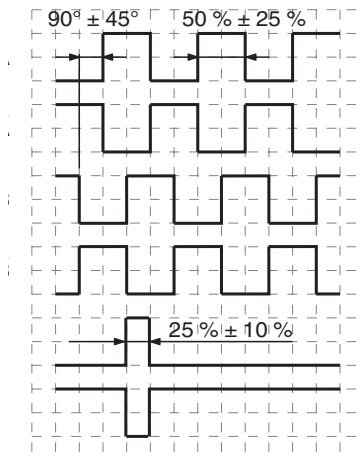
De-energized delay	t_{off}	980 ns
Connection		
Cable		Ø5 mm, 8 x 0.08 mm ² , 2 m
Standard conformity		
Degree of protection		DIN EN 60529, IP65
Climatic testing		DIN EN 60068-2-3, no moisture condensation
Emitted interference		EN 61000-6-4:2007/A1:2011
Noise immunity		EN 61000-6-2:2005
Shock resistance		DIN EN 60068-2-27, 100 g, 6 ms
Vibration resistance		DIN EN 60068-2-6, 10 g, 10 ... 2000 Hz
Approvals and certificates		
UL approval		cULus Listed, General Purpose, Class 2 Power Source
Maximum permissible ambient temperature		max. 60 °C (max. 140 °F)
Ambient conditions		
Operating temperature		-10 ... 60 °C (14 ... 140 °F)
Storage temperature		-25 ... 85 °C (-13 ... 185 °F)
Mechanical specifications		
Material		
Housing		Aluminum
Flange		Aluminum
Shaft		Stainless steel
Mass		approx. 160 g
Rotational speed		max. 6000 min ⁻¹
Moment of inertia		≤ 5 gcm ²
Starting torque		≤ 1 Ncm

Connection

Signal	Cable, 8-core
GND	White
+U _b	Brown
A	Green
B	Grey
\bar{A}	Yellow
\bar{B}	Pink
0	Blue
$\bar{0}$	Red
Screen	-

Operation

Signal outputs



↻ cw - with view onto the shaft

Type Code

T H I 4 0 P - 1 C A K 2 R 6 T N - 0 1 0 2 4

- Pulse count** 1024
- Temperature range** N normal
- Output switching** T 4,75 V ... 30 V, push-pull
- Signal output** 6 A + B + 0 and \bar{A} + \bar{B} + $\bar{0}$
- Exit position** R radial
- Connection type** K2 cable Ø5 mm, 8 x 0.08 mm², 2 m
- Flange type** A Hollow shaft
- Shaft dimensions** 1C Hollow shaft Ø8 mm, clamping ring at cover side
- Housing material** P Aluminium IP65

Release date: 2022-12-12 Date of issue: 2022-12-12 Filename: 296517_eng.pdf

T	H	I	4	0	P	-	1	C	A	K	2	R	6	T	N	-	0	1	0	2	4
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Shaft version
H Hollow shaft

Pulse count 1024
Temperature range
N normal
Output switching
T 4,75 V ... 30 V, push-pull
Signal output
6 $A + B + 0$ and $\bar{A} + \bar{B} + \bar{0}$