



Model Number

THI40N-0YAKYRYTN-00200 #198336

Features

- **Compact design**
- **4.75 V ... 30 V with short-circuit proof push-pull output**
- **RS 422 functionality at 5 V operation**

Description

The THI40 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. The rotary encoder is available with a pulse count of up to 1024 pulses per revolution.

Technical data

General specifications

Pulse count 200

Electrical specifications

Operating voltage U_B 4.75 ... 30 V DC
5 V DC for RS-422

No-load supply current I_0 max. 55 mA

Output

Output type push-pull, incremental or RS-422, incremental

Voltage drop U_d ≤ 2.5 V (< 2.5 V)

Load current max. 30 mA, short-circuit protected (max. 20 mA, conditionally short-circuit protected)

Output frequency max. 100 kHz (max. 100 kHz)

Rise time 980 ns (225 ns)

De-energized delay t_{off} 980 ns (225 ns)

Connection

Cable $\varnothing 5$ mm, 3 x 0.08 mm², 5 m, 60 mm stripped. Wire ends with crimp contacts AMP-794058-1

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

Ambient conditions

Operating temperature -10 ... 70 °C (14 ... 158 °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 gcm²

Starting torque ≤ 1 Ncm

General information

Model number Meaning of characters in the model number
0Y: 6 mm hollow shaft with customer specific torque rest
KY: 5 m PUR cable, 3 x 0.08 mm² with crimp contacts
RY: only one output channel A

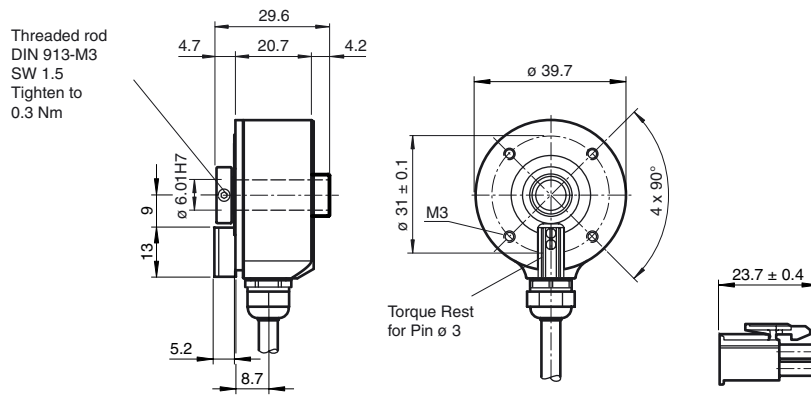
Scope of delivery AMP connector housing 17216-1 included with delivery

Approvals and certificates

UL approval cULus Recognized, General Purpose, Class 2 Power Source

Maximum permissible ambient temperature ≤ 60 °C (≤ 140 °F)

Dimensions



Electrical connection

signal	wire colour
+V _S	brown
GND	white
channel A	green