Incremental encoders

End shaft ø12 mm

Resolution 512…2048 pulses

TIL Y 1

TIL Y 1 with end shaft

Features

- **Encoder with end shaft ø12 mm**
- **Resolution max. 2048 ppr**
- **V-Lock clamping**
- **Mounting by torque support**
- **TTL or HTL output signals**
- **Tangential cable output**

Optional

- **Cable with connector**

Technical data - electrical ratings

Voltage supply	5 VDC ±5 % 8...26 VDC
Reverse polarity protection	Yes
Consumption w/o load	≤85 mA
Resolution (steps/turn)	100...2048
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	≤120 kHz
Output signals	A, B, N + inverted
Output circuit	TTL linedriver (short-circuit proof) HTL push-pull (short-circuit proof)

Technical data - mechanical design

Dimensions (flange)	60 x 72 mm
Shaft	ø12 mm hollow shaft
Motor shaft tolerance	0.25 mm axial 0.1 mm radial
Mounting kit variant	042
Protection DIN EN 60529	IP 65
Operating speed	≤3000 rpm
Starting torque	≤0.01 Nm
Materials	Housing: aluminium Shaft: stainless steel
Operating temperature	-20...+85 °C
Relative humidity	90 % non-condensing
Resistance	DIN EN 60068-2-6 Vibration 10 g, 55-2000 Hz DIN EN 60068-2-27 Shock 100 g, 11 ms
Connection	Cable 0.6 m
Weight approx.	320 g

TIL Y 1

Part number

TIL Y 1			NI	KT0.6	S	12	IP65	042

See part number (pulses)

Voltage supply / signals
- T 5 VDC / TTL level, linedriver
- H 8...26 VDC / HTL level, push pull

Output signals
- NI A, A inv, B, B inv, 0, 0 inv

Connection
- KT0.6 Cable 0.6 m, tangential

Operating temperature
- S -20...+85 °C

End shaft
- 12 End shaft ø12 mm

Protection
- IP65 IP 65

Mounting kit
- 042 Mounting accessory kit 042

Part number (pulses)

512	1024	2048

Other pulse numbers upon request.

Incremental encoders

End shaft ø12 mm

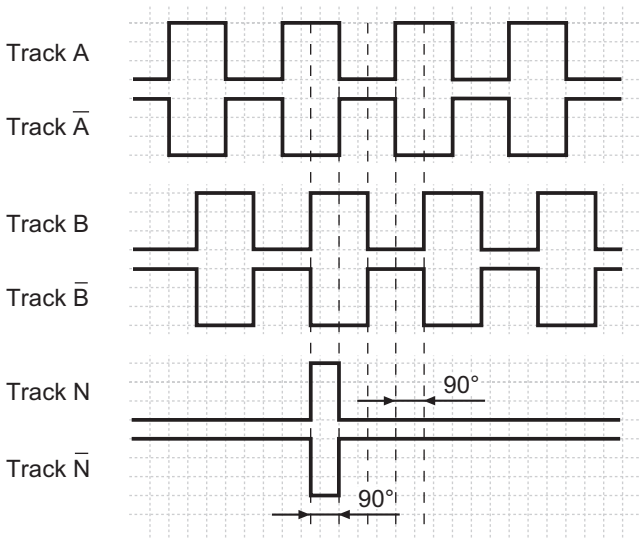
Resolution 512…2048 pulses

TIL Y 1

Output signals

Clockwise rotation when looking at the mounting side.

NI-Output signals



Terminal assignment

Core colour	Assignment
green	Track A
brown	Track A inv.
grey	Track B
black	Track B inv.
pink	Track N
white	Track N inv.
red	UB
blue	GND
transparent	Shield/Housing

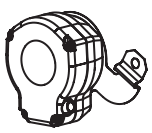
Trigger level

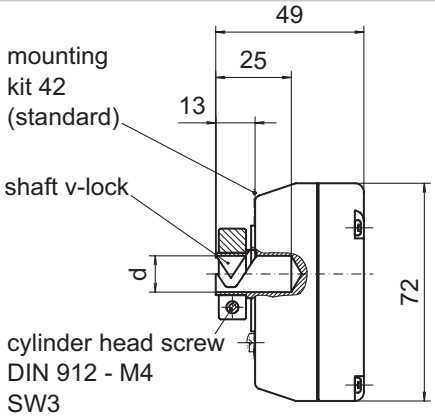
Outputs	**Linedriver**
Output level High	≥2.4 V
Output level Low	≤0.5 V
Load	≤20 mA

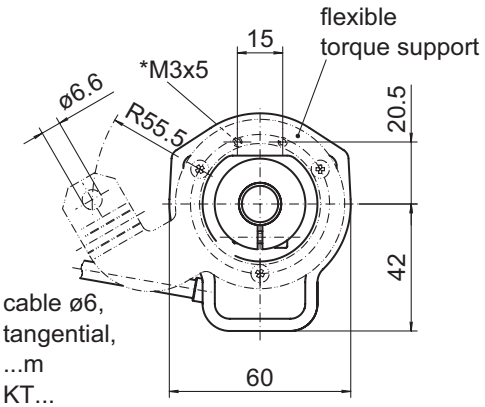
Outputs	**Push-pull** short-circuit proof
Output level High	≥UB -3 V
Output level Low	≤1.5 V
Load	≤20 mA

Dimensions

perspectives
on a scale of 1:2







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