

Incremental encoders

Hollow shaft $\varnothing 28$ to $\varnothing 30$ mm

Resolution 1024...10000 pulses

ITD 41 A 4 Y70



ITD 41 A 4 Y70 with hollow shaft

Features

- Encoder with hollow shaft $\varnothing 28$ -30 mm
- Resolution max. 10000 ppr
- Optical sensing
- Mounting by torque support
- TTL or HTL output signals
- Cable output radial

Technical data - electrical ratings

Voltage supply	5 VDC ± 5 % 8...30 VDC
Reverse polarity protection	Yes
Consumption w/o load	≤ 100 mA
Resolution (steps/turn)	1024...10000
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	≤ 300 kHz (TTL) ≤ 160 kHz (HTL)
Output signals	A, B, 0
Output circuit	TTL linedriver (short-circuit proof) HTL push-pull (short-circuit proof)
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 55011

Technical data - mechanical design

Dimensions (flange)	$\varnothing 80$ mm
Shaft	$\varnothing 28$...30 mm hollow shaft
Motor shaft tolerance	0.25 mm axial 0.05 mm radial
Mounting kit variant	050
Protection DIN EN 60529	IP 54
Operating speed	≤ 7000 rpm
Starting torque	≤ 0.01 Nm
Materials	Housing: aluminium Shaft: stainless steel
Operating temperature	-20 ... $+70$ °C
Relative humidity	90 % non-condensing
Resistance	DIN EN 60068-2-6 Vibration 10 g, 55-2000 Hz DIN EN 60068-2-27 Shock 30 g, 11 ms
Connection	Connector M18, 7-pin
Weight approx.	580 g

Incremental encoders

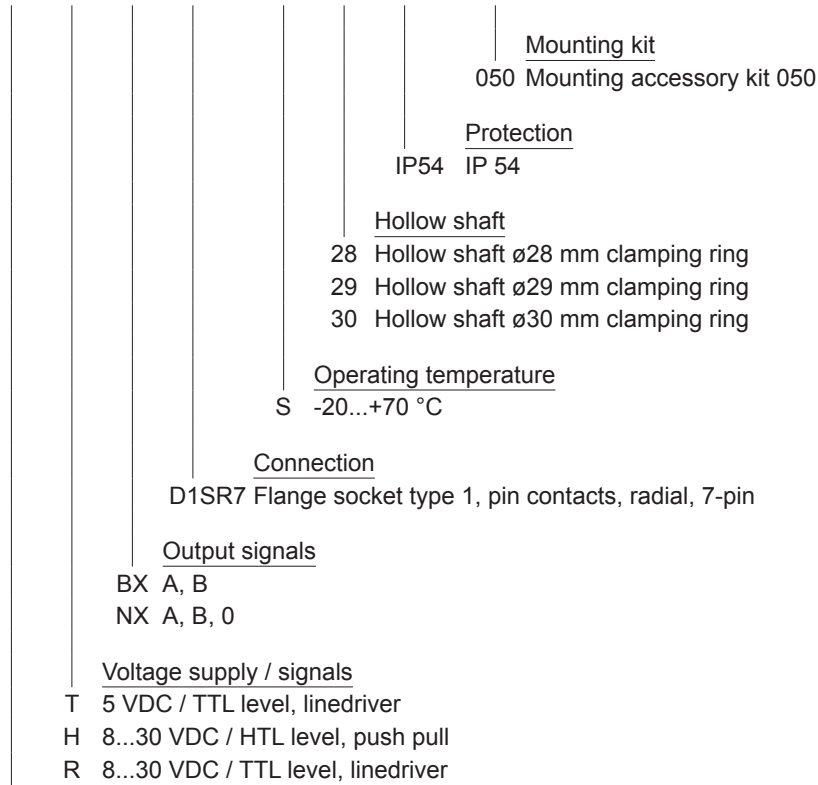
Hollow shaft ø28 to ø30 mm

Resolution 1024...10000 pulses

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Part number

ITD 41 A 4 Y70 **D1SR7** **S** **IP54** **050**



See part number (pulses)

Part number (pulses)

1024	2048	3072	4096	10000
2000	2500	3600	5000	

Incremental encoders

Hollow shaft $\varnothing 28$ to $\varnothing 30$ mm

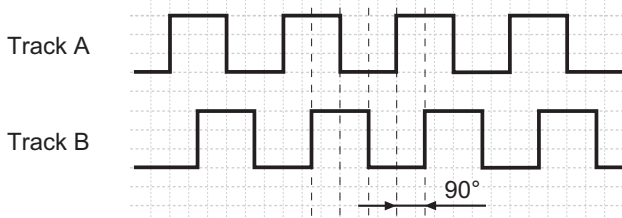
Resolution 1024...10000 pulses

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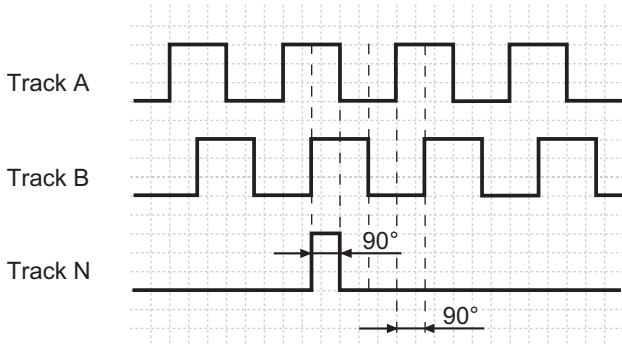
Output signals

Clockwise rotation when looking at the mounting side.

BX-Output signals

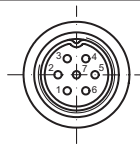


NX-Output signals



Terminal assignment

Connector	Assignment
Pin 3	Track A
Pin 4	Track B
Pin 5	Track N
Pin 2	UB
Pin 1	GND
Pin 6	-
Pin 7	Shield/Housing

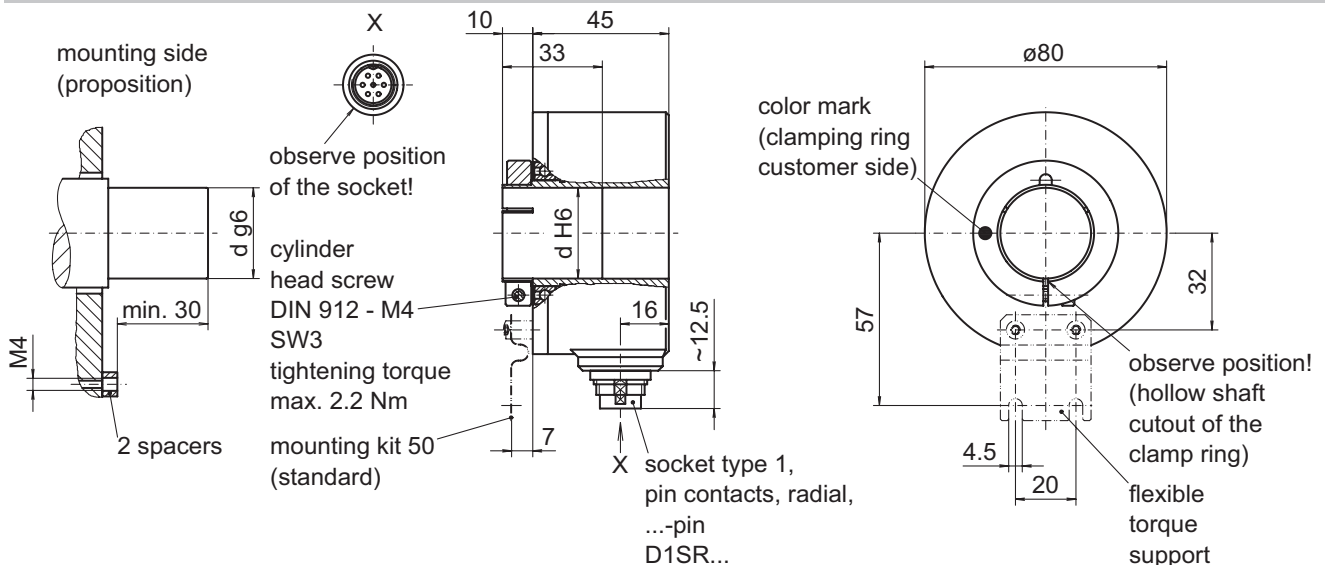


Trigger level

Outputs	Linedriver
Output level High	≥ 2.4 V
Output level Low	≤ 0.5 V
Load	≤ 70 mA

Outputs	Push-pull short-circuit proof
Output level High	$\geq UB - 3$ V
Output level Low	≤ 1.5 V
Load	≤ 70 mA

Dimensions



026- 5 Y70

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