

Economy Types



- Economy encoder
- High protection IP65
- Push-pull or NPN-O.C.
- Applications, e.g.
 - textile machinery

NUMBER OF PULSES

5 / 10 / 20 / 25 / 28 / 32 / 50 / 60 / 72 / 100 / 128 / 144 / 200 / 250 / 256 / 288 / 300 / 360 / 400 / 500 / 512 / 600 / 720 / 900 / 1000 / 1024
 Other number of pulses on request

TECHNICAL DATA
mechanical

Shaft diameter	6 mm
Absolute max. shaft load	radial 10 N, axial 5 N
Absolute max. speed	10 000 min ⁻¹
Torque	≤ 1 Ncm
Protection class (EN 60529)	Housing IP65, bearings IP64
Operating temperature	0 ... +60 °C
Storage temperature	-25 ... +85 °C
Vibration resistance (IEC 68-2-6)	100 m/s ² (10 ... 2000 Hz)
Shock resistance (IEC 68-2-27)	1000 m/s ² (6 ms)
Connection	1.5 cable axial ¹
Material	Housing: plastic, Flange: aluminium
Flange	Pilot flange
Weight approx.	75 g

¹ Other cable length on request

TECHNICAL DATA
electrical

General design	as per DIN VDE 0160, protection class III, contamination level 2, overvoltage class II
Supply voltage (SELV)	with push-pull (D): DC 5 V ± 10 % with push-pull (K): DC 5 V ¹ ± 10 % oder DC 10 - 30 V ¹ with push-pull complementary (I): DC 10 - 30 V ¹ at NPN-O.C. (S): DC 10 - 24 V ¹
Max. current w/o load	40 mA (DC 5 V), 30 mA (DC 24 V) with push-pull (K,I) 40 mA (DC 24 V), bei NPN-O.C. (S)
Standard output versions	push-pull ² / push-pull complementary ² / NPN-O.C. ³

¹ Pole protection

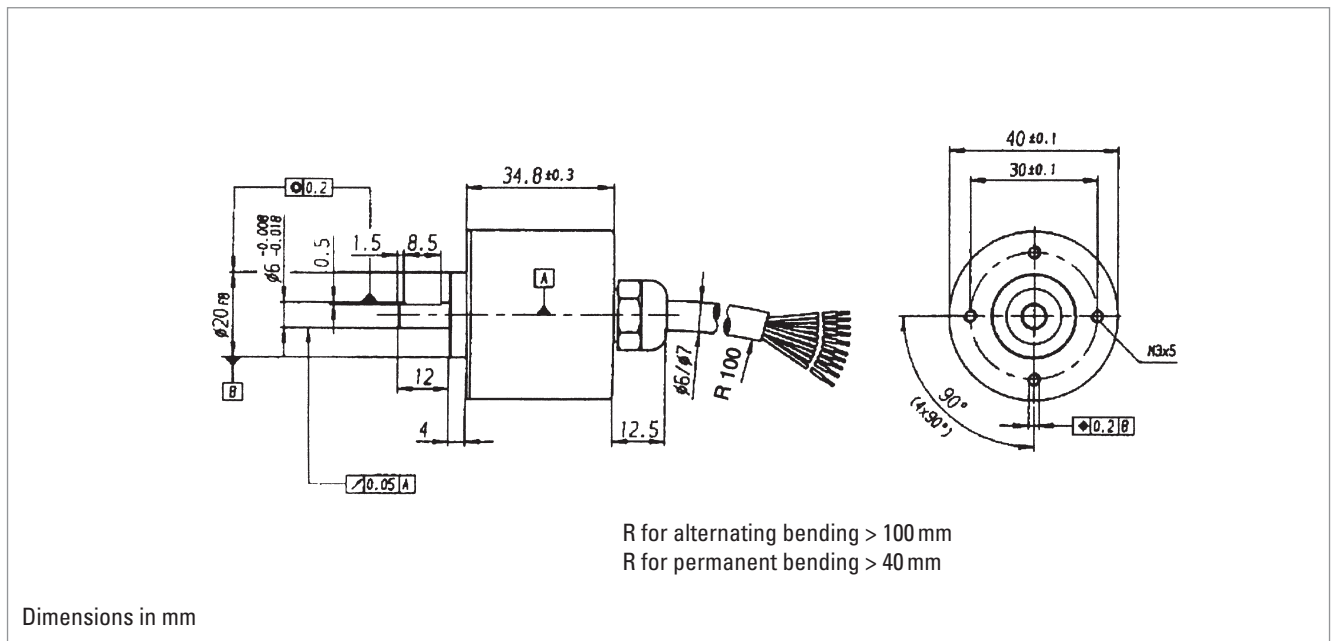
² Output description and technical data see chapter "Technical basics"

³ NPN-O.C. with internal pull-up resistor = 10 KΩ, max. pulse frequency = 50 KHz, max. output lead = ± 30 mA, tolerance ± 30° electrical, delay time 4μs

Incremental Shaft Encoders Economy Types

Type RI 42

DIMENSIONAL DRAWINGS



PIN ASSIGNMENT

Colour (PVC)	Output circuit push-pull (K, D), Open Collector (S)	push-pull complementary (I)
white	Channel A	Channel A
white/brown		Channel \bar{A}
green	Channel B	Channel B
green/brown		Channel \bar{B}
yellow	Channel N	Channel N
yellow/brown		Channel \bar{N}
yellow/black	Alarm	Alarm
yellow/red		Sense V_{CC}
red	DC 5/10 - 30/10 - 24 V	DC 10 - 30 V
black	GND	GND

ORDERING INFORMATION

Type	Model	Number of pulses	Supply voltage	Flange, Protection, Shaft	Output	Connection
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RI42-	0 Standard	5 ... 1 024	A DC 5 V ¹ E DC 10 - 30 V ² C DC 10 - 24 V ³	R.41 Pilot, IP64, 6 mm	K push-pull ⁴ short circuit proof D push-pull DC 5 V, ± 30 mA S Open Collector NPN I push-pull complementary	A Cable axial
¹ only with output K, D ² only with output K, I ³ only with output S ⁴ ±10 mA at DC 5 V, ±30 mA at DC 10 - 30 V						