

Industrial types

Solid shaft



NUMBER OF PULSES

- Miniature industry standard encoder for high numbers of pulses
- High reliability
- Application e.g.:
 - CNC axles
 - Machine tools
 - Robots
 - Special purpose machines
 - High-speed winding machines

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 / 1250 / 1500 / 2000 / 2048 / 2500 / 3000 / 3600
 Other number of pulses on request

TECHNICAL DATA mechanical

Shaft diameter	6 mm / 6.35 mm
Absolute max. shaft load	radial 10 N, axial 5 N
Absolute max. speed	max. 10 000 min ⁻¹
Torque	≤ 0.3 Ncm
Moment of inertia	approx. 2.8 gcm ²
Protection class (EN 60529)	Housing IP64, bearings IP64
Operating temperature	-10 ... +70 °C
Storage temperature	-25 ... +85 °C
Vibration resistance	100 m/s ² (10 ... 2000 Hz)
Shock resistance	1 000 m/s ² (6 ms)
Connection	1.5 m cable ¹ or connector, axial or radial
Housing	Aluminium
Flange	S = synchro flange, R = pilot flange
Weight	approx. 80 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 RS 422 (R, T):	DC 5 V ± 10 %
	with push-pull (K, I):	DC 10 - 30 V ²
Max. current w/o load	40 mA (DC 5 V), 60 mA (DC 10 V), 30 mA (DC 24 V)	
Standard output versions ³	RS 422 (R):	A, B, N, \bar{A} , \bar{B} , \bar{N} , \overline{Alarm}
	RS 422 (T):	A, B, N, \bar{A} , \bar{B} , \bar{N} , Sense
	push-pull (K):	A, B, N, \overline{Alarm}
	push-pull complementary (I):	A, B, N, \bar{A} , \bar{B} , \bar{N} , \overline{Alarm}

² Pole protection

³ Output description and technical data see chapter "Technical basics"

PIN ASSIGNMENT

Cable PVC (A, B)		Output		
Colour	Lead mm ²	RS 422 (R, T)	push-pull (K)	push-pull complementary (I)
red	0.5	DC 5 V	DC 10 - 30 V	DC 10 - 30 V
yellow/red	0.14	Sense V _{CC}		Sense V _{CC}
white	0.14	Channel A	Channel A	Channel A
white/brown	0.14	Channel \bar{A}		Channel \bar{A}
green	0.14	Channel B	Channel B	Channel B
green/brown	0.14	Channel \bar{B}		Channel \bar{B}
yellow	0.14	Channel N	Channel N	Channel N
yellow/brown	0.14	Channel \bar{N}		Channel \bar{N}
black	0.5	GND	GND	GND
yellow/black	0.14	Alarm/Sense GND ¹	Alarm	Alarm
screen ²		screen ²	screen ²	screen ²

¹ depending on ordering code

² connected with encoder housing

ORDERING INFORMATION

Type	Model	Number of pulses	Supply voltage	Flange, Protection, Shaft	Output	Connection
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
RI36-	O Standard	5 ... 3 600	A DC 5 V E DC 10 - 30 V (only with push-pull)	S.31 Synchro, IP64, 6 mm S.35 Synchro, IP64, 6.35 mm R.31 Pilot, IP64, 6 mm R.35 Pilot, IP64, 6.35 mm	T RS422 + Sense K push-pull short circuit proof R RS422 + Alarm I push-pull complementary	A Cable axial B Cable radial N BINDER ³ 6 pole, axial (only push-pull) J BINDER ³ , 6 pole, radial (only push-pull)

³ encoder connector with pins