

**Preliminary Technical Datasheet**

**REC - Resolver to Encoder Converter**

**General Description:**

The LTN-REC is a position data converter.  
 The LTN-REC drives autonomous a resolver sensor and converts its output signals to encoder incremental (square wave) output signals (emulates encoder signals).

**Specifications / Additional Informations**

Encoder Output:

- Output Signals: incremental A+, A-, B+, B-, Z+, Z-
- Resolution: 1024 incremental steps per revolution
- Output Voltage Level: 5V-36 V, limited by the supply voltage
- Max. Output Current: 100 mA limited, short circuit proof
- Dynamic Peak Current: 1500 mA max.
- Accuracy: +/- 0,184° (+/- 11 arcmin)
- Repeatability: +/- 1/4 of incremental step
- max. angular speed: up to 1000 rps, load depending, has to be tested.



Resolver Output / Input:

- Output Reference Signal: 8 Vpp (diff.) / 100mA max. / 10kHz
- Input SIN / COS: 4 Vpp (max.) -> Resolver Transformation Ratio K = 0,5

Power Supply:

- Supply Voltage (+Vs): +8 to +15 Vdc or +14 to +36 Vdc
- Power Consumption: ~1 W (e.g. 40 mA @ 24V)
- Operating Temperature: 0 to +85°C

The supply voltage can be supplied over the power connector or optionally over the encoder connector (from the encoder decoding unit).

The LTN-RCC is protected against the wrong polarity and transient overvoltage of power supply and short circuit proof on output terminals.

- Housing: Phoenix Contact "ME 22,5" for top hat rail mounting  
 Dimensions: l=114,5 mm; h = 99 mm, w = 22,5 mm

Connector terminals:

Encoder Out: Sub-D, 9-pole male -> mating connector: female	
Pin 1	GND
Pin 2	Z-
Pin 3	Z+
Pin 4	A-
Pin 5	A+
Pin 6	-
Pin 7	+Vs (Opt.)
Pin 8	B-
Pin 9	B+
Screen	PE

Resolver IN: Sub-D, 9-pole female -> mating connector: male	
Pin 1	Ref-
Pin 2	-
Pin 3	-
Pin 4	-
Pin 5	SIN+
Pin 6	SIN-
Pin 7	Ref+
Pin 8	COS+
Pin 9	COS-
Screen	PE

Power connector: 4-pole plug, screw wire connection, included	
Pin 1 (left)	+Vs
Pin 2	+Vs
Pin 3	GND
Pin 4	GND
Max. loopthroughed current: +Vs: Pin 1 - Pin 2: 3A GND: Pin 3 - Pin 3: 3A	

The PE connection (protective earth) is implemented over the mounting clamp to the top hat rail.

Ordering Informations:

G-RECLDBI-1024-5X1-15	Supply Voltage (+Vs): +8 to +15Vdc	Output Voltage Level: 5V
G-RECLDBI-1024-5X1-24	Supply Voltage (+Vs): +14 to +36Vdc	Output Voltage Level: 5V

Other configurations possible - on request.