RESOLVER

G-REC

RESOLVER TO ENCODER CONVERTER

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 - ENCODER OUTPUT

Output Signals:	incremental A+, A-, B+, B-, Z+, Z-
Resolution:	12 bit / 1024 incremental steps per revolution (other resolutions on request)
Output Voltage Level:	5 V (TTL), 14-36 V (HTL) limited by the supply voltage
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
Rotational speed:	up to 1000 s^{-1} (depending on version)

RESOLVER OUTPUT / INPUT

Output Ref. Signal:	2.8 V_{rms}
	100 mA max.
	10 kHz, 5 kHz (depending on version)
Input SIN / COS:	1.4 V_{rms} (diff.)
Transformation Ratio:	K = 0.5 +/- 10%

POWER SUPPLY

Supply Voltage (+V_S):	+8 to +15 V_{DC} or +14 to +36 V_{DC}
Power Consumption:	~1 W (e.g. 40 mA at 24V)
Operating Temperature:	0 to +85 °C

The supply voltage can be supplied via the power connector or optionally via the encoder connector (from the encoder decoding unit).
The G-REC 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

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CONNECTOR TERMINALS

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

Encoder Out (DX): Sub-D, 25-pole female > mating connector: male	
Pin 1	NC
...	NC
Pin 16	NC
Pin 17	A-
Pin 18	B-
Pin 19	Z-
Pin 20	A+
Pin 21	B+
Pin 22	Z+
Pin 23	+Vs (Opt.
Pin 24	GND
Pin 25	GND
Screen	PE

Resolver IN: Sub-D, 9-pole female -> mating connector: male	
Pin 1	Ref-
Pin 2	NC
Pin 3	NC
Pin 4	NC
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 4: 3A

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

ORDERING INFORMATION

Type	Supply Voltage (+V_S)	Output Voltage Level	Rotational Speed	Part Number	Reference Frequency
G-RECLDBI1024-5X1-15	+8 to +15 V_{DC}	5V	up to 1000 s^{-1}	3933542	10kHz
G-RECLDBI1024-5X1-24	+14 to +36 V_{DC}	5V		3931647	10kHz
G-RECKIBI1024-5X1-24	+14 to +36 V_{DC}	Vs		3932553	10kHz
G-RECKIBI1024-5X1-24CX	+14 to +36 V_{DC}	Vs		3932553-01	10kHz
	Adjusted for long cable lengths. Optimised for 130 m cable.				
G-RECKIBI1024-5X1-24DX	+14 to +36 V_{DC}	Vs	up to 500 s^{-1}	1340804-01	5kHz
	Adjusted for long cable length, tested up to 260 m				

Stated values are standard. Other configurations are available on request.
Subject to change without prior notice. Issued 10/2021

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