



RESOLVER
G-REC

RESOLVER TO ENCODER CONVERTER

The LTN-REC is a position data converter.

The LTN-REC drives autonomously 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

CONNECTOR TERMINALS

Encoder Out (Default): Sub-D, 9-pole male -> mating connector: female		Encoder Out (DX): Sub-D, 25-pole female > mating connector: male		Resolver IN: Sub-D, 9-pole female -> mating connector: male		Power connector: 4-pole plug, screw wire connection, included	
Pin 1	GDN	Pin 1	NC	Pin 1	Ref-	Pin 1 (left)	+Vs
Pin 2	Z-	...	NC	Pin 2	NC	Pin 2	+Vs
Pin 3	Z+	Pin 16	NC	Pin 3	NC	Pin 3	GND
Pin 4	A-	Pin 17	A-	Pin 4	NC	Pin 4	GND
Pin 5	A+	Pin 18	B-	Pin 5	SIN+	Max. loopthroughed current:	
Pin 6	NC	Pin 19	Z-	Pin 6	SIN-	+Vs	Pin 1 - Pin 2: 3A
Pin 7	+Vs (Opt.)	Pin 20	A+	Pin 7	Ref+	GND	Pin 3 - Pin 4: 3A
Pin 8	B-	Pin 21	B+	Pin 8	COS+		
Pin 9	B+	Pin 22	Z+	Pin 9	COS-		
Screen	PE	Pin 23	+Vs (Opt.)	Screen	PE		
		Pin 24	GND				
		Pin 25	GND				
		Screen	PE				

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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