

Preliminary Technical Datasheet

G-RDC - Resolver to Digital Converter

General Description:

The LTN G-RDC is a position data converter. The LTN G-RDC drives autonomous a resolver sensor and converts its output signals to digital position data.

Specifications / Additional Informations

Data Output / Control I/O:

- Output Signals: 16 bit: binary position data, parallel, H-active
 1 bit: /BIT (Error), L-active
- Input Signals 1 bit: /Inhibit, L-active
 1 bit: /Enable, L-active
- Resolution: 16-bit / 65536 steps per revolution
- Output Voltage Level: TTL (5V)
- Max. Output Current: 30 mA
- Accuracy: 0,072° (4 arcmin +1LSB max.)
- Repeatability: +/- 1 LSB
- max. angular speed: up to 18 rps (should be specified in the order)



Resolver Output / Input:

- Output Reference Signal: 4 Vrms / 100mA max. / 5kHz
- Input SIN / COS: 2 Vrms -> Resolver Transformation Ratio K = 0,5

Power Supply:

- Supply Voltage (Vs): +10 to +36 Vdc
- Power Consumption: ~1,5 W (e.g. 60 mA @ 24V)
- Operating Temperature: 0 to +85°C

The supply voltage can be supplied over the "Power connector" or optionally over the "Data connector". The LTN G-RDC is protected against the wrong polarity and transient overvoltage of power supply .

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:

Data Out /Control I/O: Sub-D, 25-pole female -> mating connector: male			
Pin 1	Out DB1 (MSB)	Pin 17	Out /BIT (Error)
Pin 2	Out DB2	Pin 18	IN /Inhibit
Pin 3	Out DB3	Pin 19	IN /Enable
Pin 4	Out DB4	Pin 20	NC
...	...	Pin 21	NC
...	...	Pin 22	NC
Pin 13	Out DB13	Pin 23	Vs (Opt.)
Pin 14	Out DB14	Pin 24	GND
Pin 15	Out DB15	Pin 25	GND
Pin 16	Out DB16 (LSB)	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-RDCTLSC65536-0XX-24	Supply Voltage (+Vs): +10 to +36Vdc	Output Voltage Level: TTL (5V)
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Other configurations possible - on request.