Data Sheet

safety - control - motion - interface

GV222 / GV224 / GV228
GT222 / GT224 / GT228

Pulse splitters for incremental encoders with and without potential separation

Product features:

- Power supply from 10 up to 30 VDC
- 1 encoder input for channels A, /A, B, /B, Z, /Z
- Input levels selectable between RS422, TTL and HTL
- Optionally types with 2, 4 or 8 outputs with or without potential separation available (see below)
- Output levels are specified by external power supply
- Short-circuit proof +5VDC and +24VDC encoder supply

Available devices:

- GV222: Pulse splitter with 2 outputs, short-circuit proof encoder supply, temperature range of -20 °C to +60°C.
- GV224: Pulse splitter with 4 outputs, short-circuit proof encoder supply, temperature range of -20 °C to +60 °C.
- GV228: Pulse splitter with 8 outputs, short-circuit proof encoder supply, temperature range of -20 °C to +60°C.
- GT222: Pulse splitter with 2 potential separated outputs, short-circuit proof supply, temperature range of -20 °C to +60 °C.
- GT224: Pulse splitter with 4 potential separated outputs, short-circuit proof supply, temperature range of -20 °C to +60 °C.
- GT228: Pulse splitter with 8 potential separated outputs, short-circuit proof supply, temperature range of -20 °C to +60 °C.

Technical Specifications		
Power supply:	Input voltage:	10 … 30 VDC
	Protection circuit:	Reverse polarity protection
	Ripple:	≤ 10 % at 24 VDC
	Consumption:	approx. 25 mA, with an unloaded encoder supply
	Connections:	screw terminal, 1,5 mm² / AWG16
Encoder supply:	Output voltage 1:	24 VDC (ca. 0,8 V less than supply voltage)
	Output current:	max. 250 mA, (galvanically connected with the power supply)
	Output voltage 2:	5 VDC
	Output current:	max. 500 mA, (galvanically connected with the power supply)
	Protection:	short circuit proof
	Connections:	screw terminal, 1,5 mm² / AWG16, 9-pin
	Further possibilities:	a) Externally by a separate source b) By the same source that supplies the splitter (10…30V)
Incremental input:	Signal levels (selectable):	RS422 / TTL (differential voltage > 0,5 V), HTL Differential (differential voltage > 2 V), HTL (asymmetrical): LOW 0 … 6 V, HIGH 8 … 40 V TTL (asymmetrical): LOW < 0,8 V, HIGH >2,0 V
	Channels:	asymmetrical: A, B, Z or symmetrical: A, /A, B, /B, Z, /Z
	Frequency:	max. 1 MHz at RS422 / TTL max. 500 kHz at HTL Differential max. 250kHz at SE TTL / SE HTL
	Connections:	screw terminal, 1,5 mm² / AWG16
Incremental outputs:	Number of outputs:	2 (GT222/GV222), 4 (GT224/GV224) resp. 8 (GT228/GV228),
	Output logic:	push-pull
	Signal levels:	5 … 30 V (can be supplied by respective ext. COM+ terminal)
	Signal delay time:	approx.. 160 ns
	Output current:	max. 30 mA
	Protection:	short-circuit proof
	Connections:	screw terminal, 1,5 mm² / AWG16
Potential separation:	GT222 / GT224 GT228	Potential separation between input and the outputs as well as all outputs among each other.
Indicators:	Number of indicators:	2 LEDs
	Function:	1 x green for "ready for operate" state 1 x yellow for error detection at the inputs A, B, Z
Housing:	Material:	plastic
	Mounting:	mounting rail (EN 60715, 35mm C-Profile)
	Dimensions (B x H x T):	*GV222/GV224/GT222/GT224:* 34 x 100 x 131 mm / 1.34 x 3.94 x 5.16 inches (w x h x d) (without connectors) 34 x 118 x 140 mm / 1.34 x 4.65 x 5.51 inches (w x h x d) (inclusive connectors))
	Weight:	approx.. 160 g
	Dimensions (B x H x T):	*GV228/GT228:* 54 x 100 x 131 mm / 2.13 x 3.94 x 5.16 inches (w x h x d) (without connectors) 54 x 118 x 140 mm / 2.13 x 4.65 x 5.51 inches (w x h x d) (inclusive connectors)
	Weight:	approx.. 240 g
	Protection:	IP20
Ambient temperature:	Operation:	-20 °C … +60 °C / -4 °F … +140 °F (not condensing)
	Storage:	-30 °C … +75° C / -22 °F … +167 °F (not condensing)
Failure rate:	MTBF in years: (continuous operation at 60 °C / 140 °F)	GV222: 144,9 a / GT222: 131,7 a GV224: 120,9 a / GT224: 102,0 a GV228: 85,4 a / GT228: 67,7 a
Conformity & standards:	EMC 2014/30/EU:	EN 61326-1: 2013 for industrial location EN 55011: 2016 + A1: 2017 + A11: 2020 Class A
	RoHS (II) 2011/65/EU	
	RoHS (III) 2015/863:	EN IEC 63000: 2018