



## PU210

### Universal level converter with potential separation

#### Product Features:

- Level converter, potential separator and direction signal decoder for incremental encoder signals
- Signal inputs (A, /A, B, /B, Z, /Z), adjustable either to HTL, TTL or RS422-level
- Suitable for quadrature, symmetrical, asymmetrical as well as single channel signals
- Signal outputs (A, /A, B, /B, Z, /Z), adjustable either to HTL, TTL or RS422-level
- Conversion of a 90° A/B quadrature direction signal to a static direction output and vice-versa
- Encoder connection alternatively via SUB-D-connectors or parallel screw terminal strips
- Potential separation between input and output
- High frequency range up to 500 kHz

Technical Specifications:		
<b>Power supply:</b>	Input voltage: Protection circuit: Ripple: Consumption: Connections:	5 ... 30 VDC reverse polarity protection ≤ 10 % at 24 VDC approx. 50 mA (unloaded) screw terminal, 1.5 mm <sup>2</sup> / AWG 16
<b>Encoder supply:</b>	Only external:	an external voltage can be connected at the screw terminal and is then available at the 9 pin male SUB-D connector
<b>Incremental input:</b>	Level: Channels: Frequency: Internal resistance: Connections:	selectable: TTL / RS422 (differential voltage > 1 V) or HTL (10 ... 30 V) symmetrical: A, /A, B, /B, Z, /Z      asymmetrical: A, B, Z symmetrical: max. 500 kHz      asymmetrical: max. 300 kHz (HTL) R <sub>i</sub> ≈ 10 kOhm screw terminal, 1.5 mm <sup>2</sup> / AWG 16 or SUB-D (male), 9-pin
<b>Incremental output:</b>	Level: Channels: Output current: Output circuit: Signal propagation delay: Connections:	Input voltage minus approx. 2 V A, /A, B, /B, Z, /Z max. 30 mA (per channel) Push-Pull approx. 600 ns screw terminal, 1.5 mm <sup>2</sup> / AWG 16 or SUB-D (male), 9-pin
<b>Housing:</b>	Material: Mounting: Dimensions (w x h x d): Protection class: Weight:	plastic 35 mm top hat rail (according to EN 60715) 22.5 x 102 x 102 mm IP20 approx. 100 g
<b>Ambient temperature:</b>	Operation: Storage:	0 °C ... +45 °C / +32 ... +113 °F (not condensing) -25 °C ... +70 °C / -13 ... +158 °F (not condensing)
<b>Failure rate:</b>	MTBF in years:	71.8 a (long-term usage at 60 °C / 140 °F)
<b>Conformity and standards:</b>	EMC 2004/108/EC: RoHS 2011/65/EU:	EN 61000-6-2, EN 61000-6-3, EN 61000-6-4 EN 50581