

WDG553XDOM

Counter for incremental encoders, 1 MHz



- Electronic counter series for high-end applications
- Two independent encoder inputs, each with channels A, /A, B, /B
- 1 MHz of counting capability and individual impulse scaling facility
- Selectable operating modes as counter, rev counter, position indicator and more
- Control outputs
- RS232 interface
- 8 decades (13 mm, 0.51")

www.wachendorff-automation.com/WDG553XDOM

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Pulse counter, tachometer and speed indicator with touchscreen and graphic display

Product Features:

- Multifunctional unit with several operating modes, e. g. speed or position indicator, counter, flow time indicator, timer, stopwatch or process indicator
- Universal inputs (HTL/RS422) for encoders / sensors with NPN / PNP / NAMUR characteristic
- Bright and high-contrast display with event-dependent color variations
- Emulation of a 7-segment display inclusively icons and units
- Intuitive and easy parameterization by plain text and touchscreen
- 5 /24 V auxiliary output for encoder supply
- Input frequencies up to 1 MHz
- Linearization with 24 control points
- Numerous features, e. g. scaling, filtering, start-up suppression
- 3.78 x 1.89 inch (96 x 48 mm) norm panel housing and IP65 protection

Available Options:

Basic unit with HTL / RS422 inputs (A, /A, B, /B), 3 control inputs

- Option AC: Power supply 115 ... 230 VAC
- Option AO: 16 bit analog output, 4 control outputs, serial RS232 interface
- Option AR: 16 bit analog output, 4 control outputs, serial RS485 interface
- Option CO: 4 control outputs, serial RS232 interface
- Option CR: 4 control outputs, serial RS485 interface
- Option RL: 2 relay outputs Options can be combined

| Specifications | | |
|---|--|---|
| Connections: | Connector type: | screw terminal, 1.5 mm ² / AWG 16 |
| Power supply DC: | Input voltage: Protection circuit: Consumption: Fuse protection: | 18 ... 30 VDC reverse polarity protection approx. 100 mA (unloaded) extern: T 0.5 A |
| Power supply AC: (Option AC) | Input voltage: Power consumption: Fuse protection: | 115 ... 230 VAC ± 10%, 50 ... 60 Hz approx. 3 VA (unloaded) extern: T 1.0 A |
| Encoder supply: | DC version: AC version: | 24 VDC (approx. 1 V lower than the power supply voltage), max 250 mA 24 VDC (± 15%) (max 150 mA until 45°C / 80 mA by more than 45°C) |
| Encoder supply: (6888.5155) | DC version: AC version: | 24 VDC (approx. 1 V lower than the power supply voltage), max 250 mA or 5 VDC (± 15%), max. 250 mA 24 VDC (± 15%) (max 150 mA until 45°C / 80 mA by more than 45°C) or 5 VDC (± 15%), max. 250 mA |
| Incremental inputs: | Number of inputs (channels): Configuration: Format: Frequency: | 2 (A, B) PNP, NPN, Namur or Tri-State HTL (Low 0 ... 3 V, High 9 ... 30 V) max. 250 kHz |
| Incremental inputs: (6888.5155) | Number of inputs (channels): Configuration: RS422: HTL differential HTL PNP / NPN: | 2 with inverted signal (A, /A, B, /B) RS422, HTL differential, HTL PNP or HTL NPN max. 1 MHz (RS422 differential signal > 0,5 V) max. 1 MHz (HTL differential signal > 2 V) max. 350 kHz (Low 0 ... 5 V, High 9 ... 30 V) |
| Control inputs: | Number of inputs: Format: Frequency: Reaction time: Load: | 3 HTL, PNP (Low 0 ... 3 V, High 9 ... 30 V) max. 1 kHz 1 ms max. 2 mA at 24 VDC |
| Accuracy: | Measurement: | +/- 50 ppm, +/- 1 digit |
| Analog output: (Option AO/AR) | Configuration: Voltage output: Current output: Resolution: Accuracy: Reaction time: | current or voltage operation -10...+10 V (max. 2 mA) 0/4 ... 20 mA (burden: max. 270 Ohm) 16 Bit ± 0,1 % 0°C ... +45°C ± 0,15 % -20°C ... 0°C und +45°C ... +60°C < 10 ms (as of software version 6888.515006G) |
| Control outputs: (Option AO/AR/CO/CR) | Number of outputs: Format / level: Output current: Reaction time: | 4 5 ... 30 V (depend on the COM+ voltage), PNP max. 200 mA < 1 ms |
| Relay outputs: (Option RL) | Number of outputs: Configuration: AC-Switching capacity: DC-Switching capacity Reaction time: | 2 potential free changeovers max. 250 VAC / 3 A / 750 VA max. 150 VDC / 2 A / 50 W < 20 ms |
| Serial interface: (Option AO/AR/CO/CR) | Format (Option AO/CO): Format (Option AR/CR) Baud rate: | RS232 RS485 9600, 19200 or 38400 baud |
| Display: | Type: Display range: Digit height (single + dual): Digit height (large display): Color: Operation: | Graphic LCD with backlight 8 digits plus sign (-99999999 ... 99999999) 13 mm (0,51 inch) 26mm (1,02 inch) red / green / yellow (selectable) resistive touchscreen |
| Housing: | Material: Mounting: Dimensions (w x h x d): Cut out (w x h): Protection class: Weight: | ABS, UL 94 V-0 panel 96 x 48 x 116 mm / 3.78 x 1.89 x 4.56 inch 91 x 43 mm / 3.58 x 1.69 inch IP65 (front), IP20 (rear) approx. 200 g |
| Ambient temperature: | Operation Storage: | -20°C ... +60°C / -4 ... 140°F non-condensing -25°C ... +70°C / -13 ... 158°F |
| Ambient conditions: | Altitude: Humidity: Pollution Degree: | max. 2000 m (6560 ft) above sea level max. 80% relative humidity up to 30°C 2 |
| Conformity and standards: | EMC 2014/30/EU: LV 2014/35/EU: (Only for option AC and RL) RoHS (II) 2011/65/EU RoHS (III) 2015/863: | EN 61326-1: 2013 for industrial location EN 55011: 2016 + A1: 2017 + A11: 2020 Class A EN 61010-1: 2010 + A1:2019 + AC: 2019-04 EN IEC 61010-2-201: 2018 EN IEC 63000: 2018 |