# 600-300-7AA01




## Counter, 32 Bit
### 1x 24V, 500 kHz

- 32-bit counter
- Up to 500 KHz (4-fold evaluation)
- Accommodates 24 V incremental encoders and proximity sensors
- Filters: 10 kHz | 50 kHz | 100 kHz | 500 kHz
- All inputs can be inverted
- Limits for counter and measured readings
- Hysteresis for input
- Pulse duration for output
- Refresh rate / averaging time for measuring mode
- 8 bytes of input data (count and status)
- 8 bytes of output data (preset count and commands)

## Info

Counters are used to detect pulses that are faster than a controller's cycles, i.e., signals that the controller will be unable to detect properly and that therefore need to be pre-processed. The counter module detects the edges of 24 V signals as pulses. The impulses can be counted or converted into a frequency, rotational speed, or period. The counter module features an additional 24 V input and a 24 V output for a direct response to start pulses and to quick system state changes.

Capturing modes Pulse & directionRotary encoder with single evaluationRotary encoder with double evaluationRotary encoder with quadruple evaluation Counting methods Continuous countingOnce-only countingPeriodic counting Measuring mode Frequency measurementRotational speed measurementPeriod measurement Programmable input PLC inputApproval (HW gate)SynchronizationPeriodic synchronizationLatchLatch & retriggerCan be inverted Programmable output PLC outputCount >= Reference valueCount <= Reference valueCount = Reference valueCan apply a substitute value at STOP Note: Individual modules cannot be combined with the IO systems of other manufacturers.

## Technical data

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| **General information** | |
| Order number | 600-300-7AA01 |
| Article name | 1x Counter 24 V, 500 KHz, 32 bit |
| Scope of delivery | 1x Counter 24 V, 500 KHz, 32 bit |
| Dimensions (DxWxH) | 110 x 14 x 73 mm |
| Weight | Approx. 70 g |
| Input voltage | 24 V DC |
| Power dissipation | 0.8 W |
| Input characteristic curve | Type 2, EN 61131-2 |
| Short-circuit protection | Electronic |
| Parameter configuration length | 16 bytes |
| Number of counters | 1 |
| Counter bit depth | 32 bits |
| ounting frequency per channel | Max. 500 kHz (for 4x evaluation) |
| Hot-swap capable | Yes |
| **Electrical isolation** | |
| from the backplane bus | Yes |
| Between the channels | No |
| **Current draw** | |
| External | Max. 10 mA + load |
| Internal | Max. 86 mA |
| **Output current** | |
| Rated value | 500 mA |
| Leakage current | Max. 0.5 A |
| **Ambient conditions** | |
| Ambient temperature | 0 °C ... +60 °C |
| Transport and storage temperature | -20 °C ... +80 °C |
| Relative air humidity | 95 % r H without condensation |
| Protection rating | IP 20 |
| Certifications | CE, UL |
| **UL** | |
| Surrounding Air Temperature | 0 °C ... +60°C |
| Pollution degree | 2 |
| **CE** | |
| Noise immunity | DIN EN 61000-6-2 "EMC Immunity" |
| Interference emission | DIN EN 61000-6-4 "EMC Emission" |
| Vibration and shock resistance | DIN EN 60068-2-6:2008 „Vibration", DIN EN 60068-2-27:2010 „Shock" |