

AMIKON TECHNICAL INTELLIGENCE

Product Data Sheet

Siemens 6ES7550-1AA01-0AB0

TM Count 2x24V counter module

[illegible]

CHANNELS	ENCODER INPUT	INPUT FREQUENCY	DIGITAL I/O
2 x 32 bit	24 V	200 kHz	6 DI / 4 DQ

Siemens 6ES7550-1AA01-0AB0 is the TM Count 2x24V technology module with two 32-bit counting channels. It acquires 24 V incremental or pulse signals and provides three digital inputs and two digital outputs per channel.

01 VERIFIED PRODUCT PARAMETERS

Counting channels	2 channels; 32-bit counter range
Encoder signal classes	24 V sourcing, sinking or push-pull A/B/N signals
Encoder frequency	200 kHz input; 800 kHz count with quadruple evaluation
Load supply L+	24 V DC; permitted range 19.2 to 28.8 V DC
Encoder supply output	Common 24 V supply; maximum 1 A total across both channels
Digital inputs	6 configurable inputs; 3 per channel; IEC 61131 Type 3
Digital outputs	4 sourcing transistor outputs; 0.5 A each, 2 A total
Process address space	Standard module interface: 32 input bytes, 24 output bytes
Backplane power	1.3 W; typical module power loss 4 W
Operating temperature	Horizontal -30 to 60 deg C; vertical -30 to 40 deg C; derating applies

Technical values were verified against Siemens A5E31870371-AC, 12/2020 and the Siemens Industry Mall record for the exact article number.

02 MECHANICAL AND LIFECYCLE DATA

Dimensions (W x H x D)	35 x 147 x 129 mm
Weight (official manual)	Approx. 0.25 kg
Country of origin	Germany
Lifecycle	Active product; firmware V2.0 covered by this source

03 SYSTEM ROLE AND APPLICATIONS

Use configurable gates, capture events and comparison values for engineered counting and measurement tasks. Firmware V2.0 adds Fast Mode with a reduced feedback interface; available functions depend on the selected operating mode.

- Gated event counting: acquire encoder pulses only inside a configured hardware/software gate window.
- Velocity measurement: calculate frequency, period or scaled velocity from the pulse stream.
- Direct comparison switching: operate channel outputs when count or measured values meet configured limits.

04 OFFICIAL INSTALLATION FACTS

- Qualified personnel must isolate supply power and secure connected machinery before work.
- Mount on the S7-1500 rail with the correct U connector and 40-pin front connector.
- Connect 24 V DC to power terminals 41 (L+) and 44 (M); follow the complete Siemens pin assignment.
- Match A/B/N wiring to the encoder; ground cable shields at the front-connector shield support and encoder.

05 OFFICIAL DOCUMENTATION

Siemens A5E31870371-AC, 12/2020

AMIKON PRODUCT SUPPORT

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