

Allen-Bradley 1746SC-CTR4

Counter Flowmeter Module

Product identity and function

Allen-Bradley 1746SC-CTR4 is a Spectrum Controls four-channel counter and turbine-flowmeter module for the SLC 500 platform. It accepts DC counter signals or variable-reluctance AC inputs and exchanges data with the SLC processor through the chassis backplane.

01 / Function

Provides four configurable counter or turbine-flow channels

02 / Function

Accepts 5, 12 or 24 V DC counter inputs and variable-reluctance AC inputs

03 / Function

Supports input frequencies up to 50 kHz

04 / Function

Communicates with the SLC 500 processor through the chassis backplane

PRODUCT FIELD	OFFICIAL VALUE
Manufacturer	Spectrum Controls for the Allen-Bradley SLC 500 platform
Catalog number	1746SC-CTR4
Module function	Four-channel counter / turbine flowmeter
Input channels	4

Evidence boundary: Values are limited to the supplied Spectrum Controls 1746sc-CTR4/CTR8 User Manual, the official installation guide and the official Spectrum Controls catalog. Final channel scaling and machine logic remain project-specific.

Evidence reviewed: Spectrum Controls 1746sc-CTR4/CTR8 User Manual 0300181-09 and official 1746sc installation/catalog documents.

Official technical parameters

Allen-Bradley 1746SC-CTR4 / verified set 1

PARAMETER	VERIFIED VALUE
Manufacturer	Spectrum Controls for the Allen-Bradley SLC 500 platform
Catalog number	1746SC-CTR4
Module function	Four-channel counter / turbine flowmeter
Input channels	4
DC counter input levels	5 V DC, 12 V DC or 24 V DC
Variable-reluctance input range	50 mV to 75 V peak AC
External counter-enable inputs	4
Maximum input frequency	50 kHz

Common applications

High-speed event counting Counts documented single-ended pulse inputs at rates up to 50 kHz.	Turbine flow measurement Processes compatible variable-reluctance turbine pickup signals and applies the configured scaling.
Rate and totalization Provides count and rate information to the SLC 500 processor for machine or process logic.	Legacy SLC 500 maintenance Restores a four-channel installation while preserving wiring, scaling and filter assignments.

Evidence reviewed: Spectrum Controls 1746sc-CTR4/CTR8 User Manual 0300181-09 and official 1746sc installation/catalog documents.

Applications and product precautions

Allen-Bradley 1746SC-CTR4

01 / Check

Verify the complete 1746SC-CTR4 catalog identity and assigned SLC 500 chassis slot before work.

02 / Check

Place the machine, flow system and associated outputs in the approved maintenance state before module removal.

03 / Check

Record all four channel modes, K/M/R scaling values, filter selections and counter-enable assignments.

04 / Check

Remove chassis and field power and verify a safe state before disconnecting the 24-pin removable terminal block.

05 / Check

Confirm the SLC chassis power budget includes 175 mA at 5 V DC and 75 mA at 24 V DC for 1746SC-CTR4.

06 / Check

Match each field signal to the configured 5, 12 or 24 V DC input level or the documented variable-reluctance range.

07 / Check

Use the documented conductor range and tighten the terminal block to 0.5 N m without damaging the removable connector.

08 / Check

After installation, verify channel LEDs, counts, rates, scaling, enable inputs and controlled machine or flow response before release.

Model-specific engineering FAQ

Allen-Bradley 1746SC-CTR4

How many channels does 1746SC-CTR4 provide?

1746SC-CTR4 provides four general-purpose counter or turbine-flowmeter channels.

Which input signal types can 1746SC-CTR4 accept?

It supports 5, 12 or 24 V DC counter inputs and variable-reluctance AC inputs from 50 mV to 75 V peak.

What is the maximum input frequency of 1746SC-CTR4?

The user manual specifies operation up to 50 kHz, with selectable 15, 30 and 50 kHz input filters.

Which count ranges are available in 1746SC-CTR4?

The module supports maximum count selections of plus or minus 32K or plus or minus 8M.

How quickly does 1746SC-CTR4 update its channels?

The documented update time is 4 ms per channel.

What isolation is provided by 1746SC-CTR4?

The module provides 1000 V DC channel-to-rack isolation; the channels are not isolated from each other.

What SLC 500 power budget is required for 1746SC-CTR4?

Allow 175 mA from the 5 V DC backplane rail and 75 mA from the 24 V DC rail.

What should be retained when replacing 1746SC-CTR4?

Preserve slot identity, all channel modes, input level, K/M/R scaling, filters, enable assignments and the as-found count or flow baseline.

Answers are limited to the exact identity and the cited manufacturer evidence; project configuration remains installation-specific.

Related products and contact

Verified ApterPower navigation links; not approved substitutes

NO.	RELATED PRODUCT	APTERPOWER LINK
01	Allen-Bradley 1746-P2	View Allen-Bradley 1746-P2 page
02	Allen-Bradley 1746-P4	View Allen-Bradley 1746-P4 page
03	Allen-Bradley 1746-A4	View Allen-Bradley 1746-A4 page
04	Allen-Bradley 1746-OW16	View Allen-Bradley 1746-OW16 page
05	Allen-Bradley 1746-OW4	View Allen-Bradley 1746-OW4 page
06	Allen-Bradley 1746-OV32	View Allen-Bradley 1746-OV32 page
07	Allen-Bradley 1746-OG16	View Allen-Bradley 1746-OG16 page
08	Allen-Bradley 1746-OBP16	View Allen-Bradley 1746-OBP16 page
09	Allen Bradley 1336T-LM1EN	View Allen Bradley 1336T-LM1EN page
10	Allen Bradley 1336T-LM1EN-74103-015-52A-297346	View Allen Bradley 1336T-LM1EN-74103-015-52A-297346 page
11	Allen Bradley 1492-ACABLE010TB	View Allen Bradley 1492-ACABLE010TB page
12	Allen Bradley 150-C30NBR	View Allen Bradley 150-C30NBR page
13	Allen Bradley 150-F135NBDB	View Allen Bradley 150-F135NBDB page
14	Allen Bradley 1503VC-BMC5	View Allen Bradley 1503VC-BMC5 page
15	Allen Bradley 1503VC-BMC5-MC1	View Allen Bradley 1503VC-BMC5-MC1 page
16	Allen Bradley 1715-TASOF8	View Allen Bradley 1715-TASOF8 page

Recommendation links are navigation aids only and do not establish compatibility.

APTER POWER CONTACT

WHATSAPP / PHONE +86 180 3023 5313

EMAIL sales13@apterpower.com

WEBSITE www.apterpower.com



1746SC-CTR4