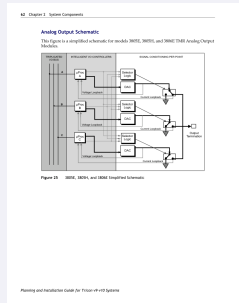


AMIKON TECHNICAL INTELLIGENCE

Product Data Sheet

Triconex 3805E

TMR Analog Output Module



OUTPUTS	CURRENT	RESOLUTION	SOURCE
8 commoned return	4-20 mA	12 bits	9720077-012

Triconex 3805E provides eight DC-coupled analog outputs with a commoned return. Its 12-bit output stage supplies the documented 4-20 mA operating range, with a 2-21.2 mA over-range capability and external field-loop power.

01

VERIFIED PRODUCT PARAMETERS

Output points	8
Return arrangement	Commoned return, DC-coupled
Output resolution	12 bits
Nominal output current	4-20 mA
Extended output capability	2-21.2 mA
Output accuracy	Less than 0.25% of 0-21.2 mA FSR, within 4-20 mA, 0-60 degrees C
External loop voltage	24 VDC nominal; 42.5 VDC maximum; reverse-voltage protected
Loop voltage versus load	250 ohm: >20 V; 500 ohm: >25 V; 750 ohm: >30 V; 1000 ohm: >35 V
Specified loop-supply current	1 A minimum for the tabulated load cases
Output over-range protection	42.5 VDC continuous; 0 VDC continuous

Technical values were verified against Invensys 9700077-012, February 2009.

02 ADDITIONAL TECHNICAL DATA

Channel-failure switch time	10 ms typical; 20 ms maximum
Loop-power indication	Pwr1 and Pwr2 detect presence above 20 VDC, not load adequacy
Load alarm condition	Unable to drive current from an output, for example an open load
Per-point loopback monitoring	Two independent circuits: signal verification and selected-channel current verification
Logic power	Less than 15 W

03 SYSTEM ROLE AND APPLICATIONS

Size loop power for the actual load: the manufacturer specifies progressively higher supply voltages as resistance increases. Pwr1 and Pwr2 indicate the presence of more than 20 VDC, but do not establish adequate voltage for the attached load. Check loop voltage, current and termination before service.

- Command a connected 4-20 mA receiving device through the selected output channel. Verify commanded and actual current at low, middle and high operating points against the approved control scaling.
- Connect the documented redundant loop-power sources at the termination panel. Check each source against the total loop resistance and required current, rather than relying only on a lit Pwr indicator.
- Use the Load indication together with measured loop voltage and current to locate an open or undrivable output circuit. The module monitors both the analog signal and actual selected-channel current.

04 OFFICIAL INSTALLATION FACTS

- Confirm 3805E identity and the commoned-return termination arrangement.
- Provide external loop power through the correct termination panel.
- Check required supply voltage against each loop load and the 1 A minimum table rating.
- Do not infer adequate load voltage from Pwr1 or Pwr2 alone.

05 OFFICIAL DOCUMENTATION

Invensys 9700077-012, February 2009

AMIKON PRODUCT SUPPORT

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