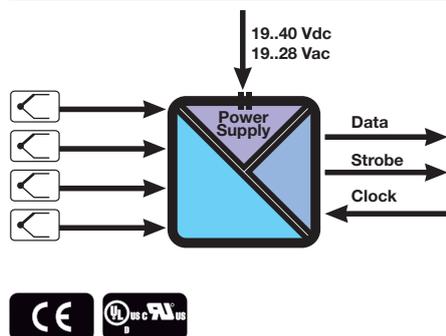




Z-4TC-D

4-CH THERMOCOUPLE A/D CONVERTER



Z-4TC-D allows to acquire up to N.4 Thermocouple sensors (J, K, E, N, S, R, B, T) through a PLC with only digital input/output. The PLC interface is based on three PNP-type signals suited for connection to most PLCs available in the market. The interface is composed of a CLOCK signal generated by the PLC (transistor output), a DATA signal and STROBE signal generated by the module.

TECHNICAL SPECIFICATIONS

General Data

Power supply	19..40 Vdc / 19..28 Vac / 50-60 Hz
Power consumption	2,5 W
Isolation	1.500 Vac (3 way)
Power transducers	Yes
Status Indicators	Power supply, error, data transmission, data reception, input status
Protection Degree	IP20
Operating Temperature	0..+55 °C
Dimension (W x H x D)	17.5 x 100 x 112 mm
Mounting	35 mm DIN rail guide

Communication, Memory Process

PLC communication	3-wire synchronous serial: CLOCK, DATA, STROBE, standard levels 24V pnp.
PLC type	Interface for PLC on standard digital I/O (only DC).
Sampling time	Sampling time settable at 400 ms @ 14 bit + sign, 200 ms @ 13 bit + sign
Distance	Up to 100 m (with shielded cable).

Signals

Channel Numbers	4
INPUT	VOLTAGE bipolar with 80 mV f.s., input impedance > 10 Mohm, resolution 5 uV (10 uV @ 14 bit). THERMOCOUPLE J,K,R,S,T,B,E, and N type; resolution 5 uV (10 uV @14 bit), input impedance > 10 Mohm, TC cut-off detection.

Programming

The programming necessary for the PLC is extremely reduced: the SIEMENS S7-200 PLC requires one 10 lines of Ladder in order to read the analogue inputs; this corresponds to approx. 187 byte of programming space.

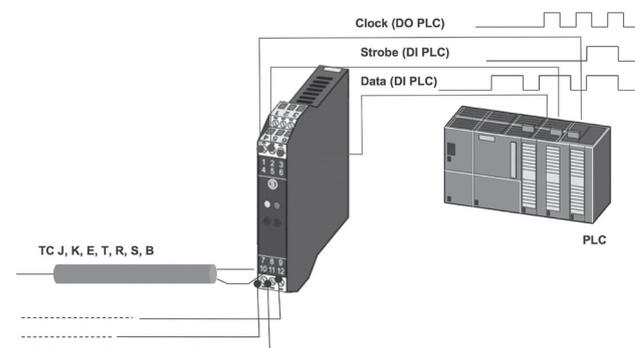
Software

It is not necessary to read all the channels: the programming tool can be used to decide which channels to be sent to the PLC. The tool also the selection of the module's various operating modes: field of measurement, filter, type of serialisation, type of data sent to the PLC, etc.

Standard

Approvals	CE, UL-CSA
Norms	EN 50081-2; EN 55011; EN 50082-2; EN 61000-2-2/4; EN 50140/141; EN 61010-1

APPLICATION NOTE



ORDER CODES

Code	Description
Z-4TC-D	4-CH Thermocouple A/D converter, 19..40 Vdc / 19..28 Vac

ACCESSORIES & SOFTWARE

	
Z-PC-DIN Backplane for power & bus communication pg. 36	Z-SUPPLY Switching power supply pg. 36

SIMILAR PRODUCTS

	
Z-4AI-D 4-CH DC current-voltage A/D converter pg. 45	Z-8TC 8-CH thermocouple/mV input module / ModBUS pg. 21