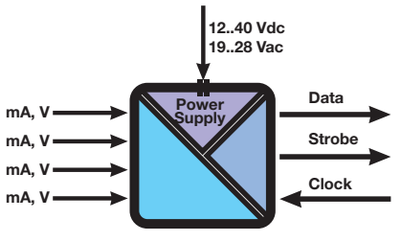
Z-4AI-D

4-CH DC CURRENT-VOLTAGE A/D CONVERTER

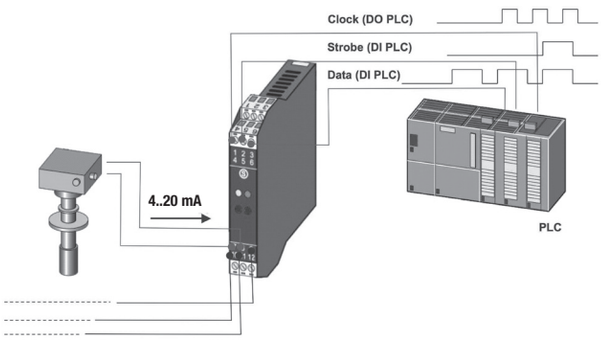


Z-4AI-D allows to acquire up to N.4 analogue inputs (ma or V) through a PLC with only digital input/output. The PLC interface is based on three PNP-type signals suited for connection to most PLCs available in the market.
The interface is composed of a CLOCK signal generated by the PLC (transistor output), 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 f.s. +/-10V DC or +/- 2V DC, input impedance 100 Kohm, resolution 14 / 13 bit + sign. CURRENT Bipolar with f.s. +/- 20 mA DC, input impedance 100 ohm, resolution 14 / 13 bit + sign.
Programming	
Software	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. 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
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-4AI-D	4-CH DC current-voltage 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-4TC-D
4-CH thermocouples A/D converter
pg. 46

Z-4AI
4-CH analog input module / ModBUS
pg. 16

Z-8AI
8-CH analog input module / ModBUS
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