

DIGITAL ELECTRONICS WITH PROFIBUS OUTPUT

MULTI FUNCTIONS WITH MICROPROCESSOR SERIES PITAGORA



UP TO EIGHT ANALOG TRANSDUCERS CONNECTED TO SIEMENS SIMATIC PLC.

DESCRIPTION:

Pitagora is a microprocessor instrument where it is possible to install up to four input/output cards and it has many software functions.

It is possible to connect to Pitagora up to eight max. analog sensors or transducers, It feeds them power supply and It digitizes their signals with high 24 bit max resolution with high 3,8 KHz max. sampling rate. Pitagora allows to connect many types of voltage and current analog signals.

Pitagora transmits transducers measured values to a SIEMENS SIMATIC PLC, by means of PROFIBUS DP digital data transmission thought a DB9 connector.

Pitagora transmits in an easy and cost effective way up to eight pcs. transducers to a single PLC digital input port.

Display shows the measured values in engineering units (Kg, daN, bat etc.)and it is possible to transmit, by means of Profibus DP, the measured values as engineering units or A/D converter points.

Pitagora is calibrated with each single connected transducer and can therefore transmit the measured values of each single channel or also their sum value (useful for weighing systems with many load cells).

It is eventually possible to apply output cards that allow: six max. alarm levels with relays, eight max. alarm levels with optically insulated outputs or analog outputs with 16bit D/A resolution.

FUNCTIONS:

Sum of signals, zeroing, digital filtering, positive or negative peak memory, hold (additional optional functions are possible under customer's request).

APPLICAZIONI:

To be used instead of expensive PLC analog input cards, weighing systems, boats and airplanes baricentre control, automation, quality control on production lines etc.

TECHNICAL SPECIFICATIONS

- **PROFIBUS DP connection:** by means of DB9 connector.
- **Display:** Liquid crystal display with bright background light, with 7 digits and with alphanumeric line.
- **Values shown:** in engineering units.
- **A/D converter:** Input cards with 24bit max. A/D converter and 3,8KHz max sampling rate.
- **Calibration and parameter setting:** by means of push buttons on front panel and by means of digital data transmission.
- **Contacts:** 4 optoinsulated for activating software functions.
- **Power supply:** to PITAGORA: 0 to +10,5 ÷ 40Vdc and 0 to 9 ÷ 28Vac.
to connected transducers:
 - not amplified: 0 to +5Vdc.
 - With built-in electronics: like power supply fed to PITAGORA (Vac is filtered and rectified).
- **Working temperature:** -20 ÷ +70°C; Rh: <95%.
- **Certification:** CE against electromagnetic noise.
- **Overall sizes:** 94x48mm depth: 90mm, panel cut: 92x44mm.
- **How to order:** Pitagora A - B - C - D - X

Input cards:

- I1 = 0 to ±80mV
- I2 = 0 to ±80mV two input channels
- I4 = 0 to ±5V and 0 a ±10V
- I5 = 0 to ±5V and 0 a ±10V two input channels
- I6 = 4-20mA; 0-20mA (2 wires)
- I7 = 4-20mA; 0-20mA (2 wires) two input channels
- I8 = 4-20mA; 0-20mA (3 wires)
- I9 = 4-20mA; 0-20mA (3 wires) two input channels

Output cards:

- O1 = 0 to +5V
- O2 = 0 to +10V
- O3 = 4-20mA
- O4 = 0-20mA
- D0 = 2 alarm levels with relays output.
- D1 = 4 alarm levels with optically insulated outputs.

Protocols:

PROFIBUS= digital output Profibus DP
 Example: Pitagora-A-I2-I4-D-Profibus
 (Pitagora with 2 not amplified input channels,
 2 amplified ±5 or ±10V inputs and Profibus data transmission.



Pitagora with load cells



Pitagora with pressure transducers



Pitagora with link for force, flexion, torque



Pitagora with magnetostrictive transducers of level and of position

Specifications and prices may change without notice.

Bullettin: 240108-UK



DS EUROPE SRL

Via F. Russoli, 6 - 20143 Milano (Italy)
 Tel.: ++39028910142 Fax: ++390289124848
 dseurope@dseurope.com www.dseurope.com