



# DATCON

INDUSTRIAL MEASUREMENT

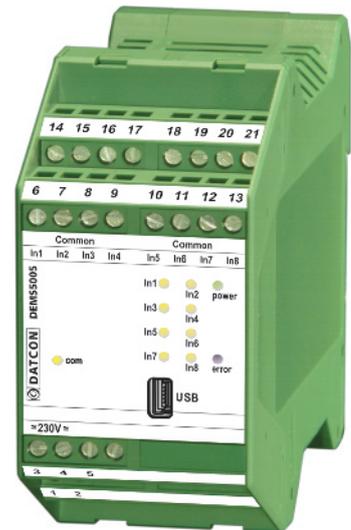
## DEMS5005



### Pulse Collector

#### Product features:

- 8 x NAMUR / contact inputs
- Counting of incoming pulses
- Measuring the time between the incoming pulses
- RS232 / RS485 communication, MODBUS RTU protocol
- Configuration via USB port
- 24 V AC/DC, 230 V AC/DC power supply
- TS-35 rail mounting, 45 mm width



The **DEMS5005 Pulse Collector** has the function to integrate into the system those pulse-output transmitters (volume meters, consumption meters, etc.), which are connected to the inputs of the device. Through the use of this device, it becomes simple to connect various devices to process control systems.

This device performs two different functions:

- Counting of incoming pulses (consumption / metering), and
- Measuring the time between the incoming pulses (momentary consumption metering, flow-volume measurement, etc.)

The **DEMS5005** can be connected to a signal-processing computer, or to a PLC through a communication interface RS232 / RS485, the communication protocol is: MODBUS RTU. NAMUR and contact outputs can be connected to the input of the instrument. In the event of NAMUR output transmitters, the device is equipped with a line-fault detection function to monitor of short or open circuit lines.

Two different measurement ranges are available for selection: 0-10 Hz (here the input is bounce-free), and 0-50 Hz.

The user can select from the following input modes: the device is activated by rising or falling edges, or (in the case of a contact), the device is activated by the closing or the opening of the contact.

The operating parameters can be specified and downloaded by a simple configuring programme, running on a PC. Such parameters are: input selection (NAMUR / contact), input mode (rising signal / falling edge detection), frequency range. In on-line mode, the program allows for a continuous monitoring of all inputs. The pulse collector device can be connected to a configuring computer via an USB port.

The **DEMS5005** has to power supply versions: 18–40 V AC/DC (DEMS5005) or 180–250 VAC (DEMS5005 PS)

The device preserves the settings and the measured pulse numbers for an unlimited period of time.

## Technical specification

### Safety data:

The connection terminals of the supply voltages are isolated from each other, the isolation is in compliance with the standard EN 61010-1, taking into consideration the following:

Pollution level:	2
Measurement category:	II

### Input parameters:

Number of channels:	8
Measured quantities:	counting of incoming pulses (consumption metering) measuring the time between the incoming pulses (momentary consumption metering, flow-volume measurement, etc.)
NAMUR input	
No load voltage:	8,2 V (in compliance with the standard EN 60947-5-6 (NAMUR))
Short circuit current:	8,2 mA (in compliance with the standard EN 60947-5-6 (NAMUR))
Input resistance:	1000 ohm (in compliance with the standard EN 60947-5-6 (NAMUR))
Contact input:	
No load voltage:	8,2 V
Short circuit current:	0,5 mA (max.)
Frequency range:	0–10 Hz (here the input is bounce-free) / 0–50 Hz

### Output parameters:

#### Communication interface:

Type:	RS232 or RS485 (isolated)
Protocol:	MODBUS RTU slave
Baud rate:	300 / 600 / 1200 / 2400 / 4800 / 9600 / 14400 / 19200 / 38400 Baud

#### Indicator:

Indicator:	11 x LED (8 x input, power supply, fault, communication)
------------	--

#### Power supply:

Power supply:	18–40 V AC/DC (DEMS5005 ...)	180–250 VC/DC (DEMS5005 ... PS)
---------------	------------------------------	---------------------------------

#### Ambient conditions:

Operating temperature range:	0–50°C (-20–50°C for customer request)
Relative humidity:	90% (max., non-condensing)
Place of installation:	cabinet

#### Electromagnetic compatibility (EMC) accordance with the standard EN 61326:2000:

Immunity:	-A- criterion
Noise emission:	-A- class

#### General data:

Housing:	terminal assembly box, rail mounting on TS-35 rail, material: polyamide PA6.6
Connection:	screw terminal
Connection cable:	0,25–1,5 mm <sup>2</sup>
Dimensions / weight:	45 x 99 x 115 mm (width x height x depth) / 0,2 kg
Protection:	IP 20

Detailed information see in operating instructions. The Manufacturer maintains the right to change the technical data!