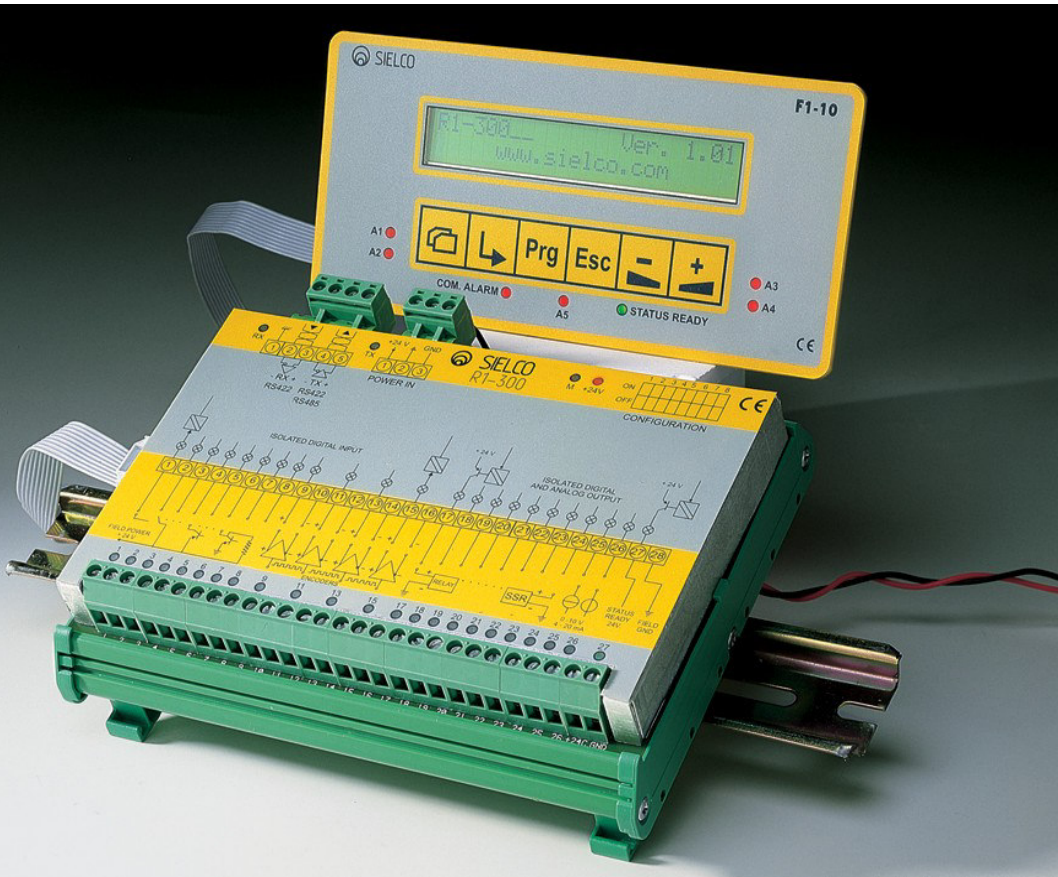




T1-55 MULTICHANNEL PRESET COUNTER AND FREQUENCY METER



GENERAL DESCRIPTION

The multichannel preset counter and frequency indicator T1-55 can manage 8 independent preset digital outputs related to the totalizing counters or the frequency values of pulses read through 8 digital inputs and 2 encoder inputs; one of these can be a bi-directional encoder with a marker pulse that can automatically reset the related up/down totalizing counter; also 2 analog outputs are available as an option. The T1-55 is made of a base module that can be mounted on a DIN rail and a front mounting operator panel that offers an effective and easy to use programming and supervision interface; special menu driven procedures allow configuration of measuring units, preset values, counters reset modes and operation logic. The good operation of the device is controlled by a watch-dog and indicated through a “status-ready” output. The link with a supervisory center is provided by a serial RS422/485 interface with a Modbus protocol.

MAIN FEATURES

- TEN 32 BIT COUNTERS
- TEN FREQUENCY METERS
- EIGHT PRESET DIGITAL OUTPUTS
- TWO ANALOG OUTPUTS (OPTION)
- WATCH-DOG AND “STATUS-READY” OUTPUT
- PROGRAMMABLE MEASURING UNITS
- FRONT MOUNTING OPERATOR PANEL
- MODBUS COMMUNICATION PROTOCOL
- EASY AND INTUITIVE SUPERVISION SOFTWARE





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DIGITAL INPUTS AND OUTPUTS

The device provides eight input and eight output digital channels with a status indicator led; all channels are optically isolated; input channels are common positive (24 V) and can be used for reading pulses with frequency less than 500 Hz and 50% duty cycle; digital outputs are PNP type (24 V) with maximum current 100 mA.

ENCODER INPUTS

The encoder inputs are optically isolated and have a status indicator led; they accept both balanced (line driver) and unbalanced (open collector) signals with frequency up to 30 kHz. One of the two inputs can be connected to a bi-directional encoder with marker pulse.

TOTALIZING COUNTER AND FREQUENCY

For each digital input and encoder input a frequency measurement and a totalizing counter are provided; in case of a bi-directional encoder, the totalizing counter is an up/down type with the possibility of automatic reset when a marker pulse is received; each counter can be reset by the operator (from the operator panel), by an electrical signal or when a preset threshold value is reached.

PRESET OUTPUTS

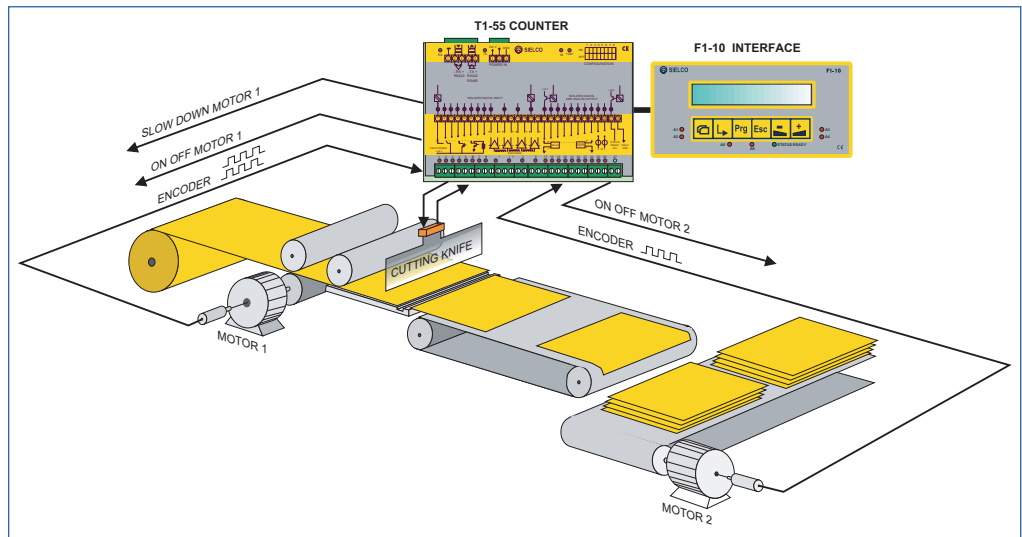
The eight digital outputs are freely configurable as preset outputs; the status of any output can be related to any one of the inputs and can be automatically set on or off according to programmed preset values of totalizing counter or frequency.

COMMUNICATION INTERFACE

The T1-55 provides an optically isolated RS422/485 serial communication interface with Modbus protocol; up to 31 devices can be connected to the same master supervision unit.

SCADA SOFTWARE

WINLOG-A is the real time software package recommended when a PC supervision of T1-55 devices is required. WINLOG-A software provides an operator interface in a Windows environment for process supervision, recipes programming, analysis of historical trends, alarms management, and printing of reports. An integrated development environment provides a set of tools for the easy and quick creation of entire multilanguage applications.



Nell'esempio in figura gli ingressi encoder sono utilizzati per controllare la posizione di due nastri trasportatori, mentre la logica di preselezione permette di effettuare un taglio al volo, rallentando opportunamente la velocità del nastro prima del taglio, e di accumulare i pezzi tagliati in pile di altezza prestabilita.

ANALOG OUTPUTS

Two 12 bit resolution, 0-10 V type, optically isolated analog channels are also available as an option; analog output level can be manually set by the operator through the operator panel F1-10 or controlled by a supervisor PC through the serial interface.

STATUS-READY OUTPUT

A watch-dog controls the device operation and activates a status-ready output; in case of device breakdown (for a fault or a power loss or any other reason) the safe-state output turns off and also all outputs are disabled.

MEASUREMENT UNITS

Measurement units are configurable independently for each input; both the scaling factor (to convert pulses into measurement units) and frequency period can be programmed.

OPERATOR PANEL

A front mounting operator panel provides a LCD display with 2 rows of 24 characters each, 6 signalling leds and 6 programming keys; device configuration and supervision are easily managed by mean of menu driven procedures; language (italian/english) can be selected on-line.

ELECTRIC AND MECHANICAL CHARACTERISTICS

Base module: 24 Vdc power supply, 8 W power consumption, 28 screw connectors + 8 plug-in connectors, mounting on DIN EN rail, dimensions 125 x 328 mm.

Operator panel: power provided by the base module, external dimensions 157.5 x 76 mm, depth 23 mm.

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