



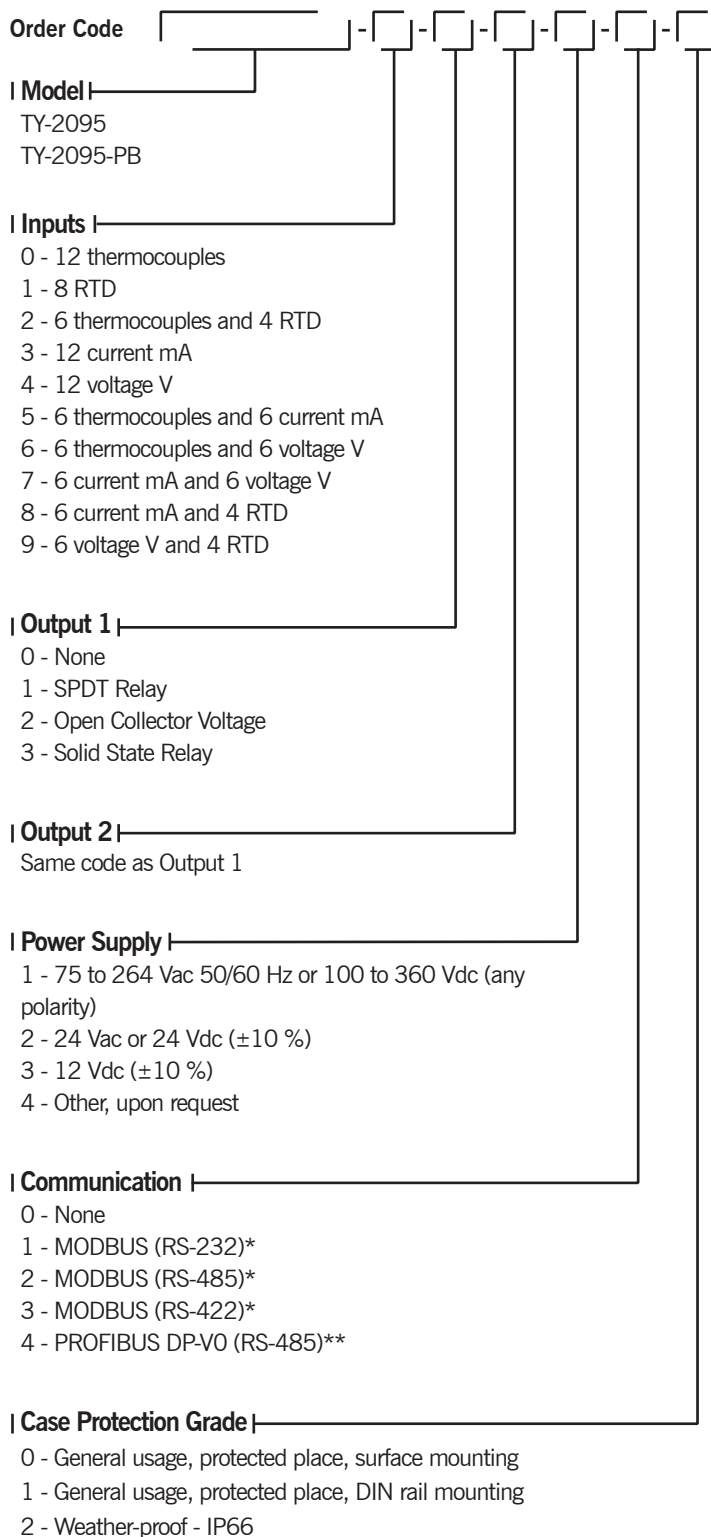
# Data Acquisition Module

## TY-2095 and TY-2095-PB



- Available models:
  - 12 thermocouple inputs.
  - 8 RTD inputs.
  - 12 current 4-20 mA inputs.
  - 12 voltage 1-5 Vdc inputs.
  - Combination of two input types.
- Eight voltage or current inputs totalization.
- Available optionals:
  - Up to two SPDT relay alarm modules.
  - RS-232, RS-422/485 Communication (MODBUS® RTU Protocol) or PROFIBUS® (DP-V0)\*.
- Features DIN rail or surface mounting.
- High level of accuracy. RTD and thermocouple linearization; square root extraction for mA and V inputs.
- Configurable via serial communication or through portable configurator.

\*Available only for the model TY-2095-PB



**Dimensions**  
 310 x 310 x 200 mm (HxWxD)  
**Weight**  
 11 kg nominal

**Specifications**

**Inputs**

Thermocouple (J, K, T, E, R, S under ITS - 90).  
 RTD Pt-100 under DIN 43760.  
 4-20 mA with input impedance of 250  $\Omega$ .  
 1 to 5 Vdc with input impedance >10 M $\Omega$ .

**Outputs**

Up to 2 SPDT relays rated for 3A/220 Vac.  
 Logic signal, open collector transistor, 24 Vdc/40 mA maximum with isolation. Solid state relay, 2A/250 Vac with isolation.

**Serial Communication**

TY-2095: RS-232 or RS-422/485. MODBUS®-RTU Communication Protocol.  
 TY-2095-PB: PROFIBUS® DP-V0: RS-485.

**Indication**

Without local indication. Maximum range from -999 to 9999 viewed through the MCY-25 Configuration Module.

**Totalization**

Totalization of eight voltage or current inputs ranging from 0 to 9999, configured with the decimal point.

**Configuration**

Through MCY-25 portable configurator.

**Sampling Rate**

480 ms standard, for all inputs. One second display update rate.

**Accuracy**

$\pm 0.1\%$  of full scale for TC, RTD, mA, Vdc.

**Linearization**

$\pm 0.1\text{ }^\circ\text{C}$  for RTD and  $\pm 0.2\text{ }^\circ\text{C}$  for TC.

**Square Root Extraction**

$\pm 0.5\%$  of reading, for input above 10 % of span.  
 Programmable Cut-off from 0 to 5 %.

**Cold Junction Compensation**

$\pm 2.0\text{ }^\circ\text{C}$  in ambient temperature range from 0 to 60  $^\circ\text{C}$ .

**Span Temperature Coefficient**

$\pm 0.005\%$  of span /  $^\circ\text{C}$  using 25  $^\circ\text{C}$  as the reference temperature.

**Power Supply**

75 to 264 Vac 50/60 Hz or 100 to 360 Vdc (10 W nominal); 24 Vac/dc ( $\pm 10\%$ ); 12 Vdc ( $\pm 10\%$ ).

**Operating Range**

0 to 60  $^\circ\text{C}$  temperature and 90 % maximum relative humidity.

**Dimensions**

140 x 93 x 173 mm HxWxD.

**Weight**

0.7 kg nominal.

**Warranty**

One year.