APLISENS ®

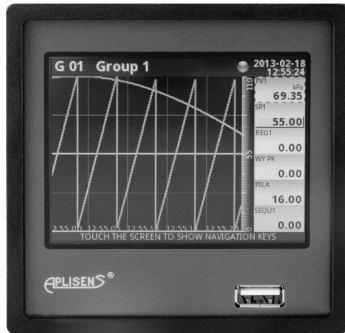# Multichannel controller with data logging capabilities type PMS-110R / PMS-111R

✓ **compact multichannel controller with data logging capabilities**

✓ **analog / digital /universal inputs**

✓ **thermocouple / RTD inputs**

✓ **counter / flowmeter/ ratemeter inputs**

✓ **current or relay / SSR outputs**

✓ **USB Host port for flush data storage**

✓ **free configuration and recording software**

✓ **3.5"/5.7 TFT, 320 x 240 pixels, touchscreen navigation**

Application and functions

The data logger PMS -11..R is a powerful and versatile compact multichannel -controller with a capability to record data, if the recording function is requested and activated. Thanks to that it is one of the first industrial devices which integrates advance d control functions (PID, ON/OFF, time & profiles etc.) and logging of set points , excitations and current state of controlled objects. Based on Linux firmware, is stable and the touch screen makes configuration easy and comfortable and data presentation a lso readable and attractive. The device can simultaneously record all build -in logical channels, and is capable to record data with maximum speed 10Hz (ten samples per second, with some limitation of number of recorded channels). 2GB of internal data memo ry is enough for continuous recording of all channels with a speed of 1 sample per second (each channel) for over 50 days (250 000 000 samples in total). Version with 4BG. internal memory with the same configuration can storage data from 115 days. An opera tor can download stored data using a USB flash disk or via Ethernet.

Display configuration option
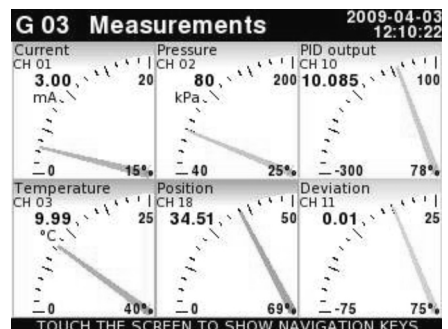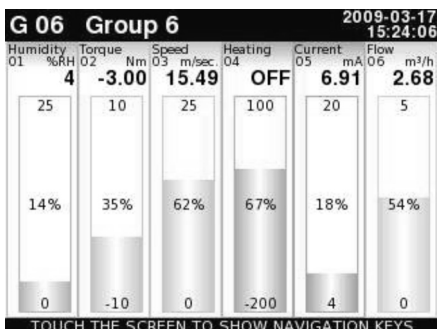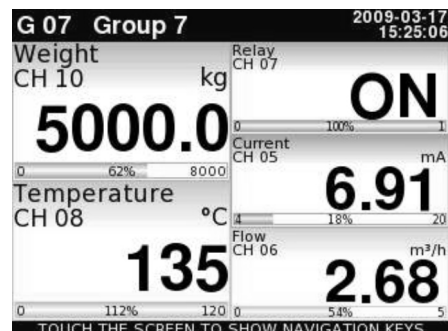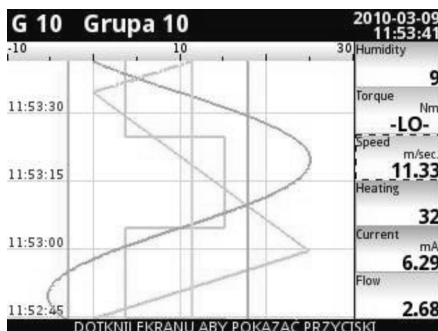
Technical data

Power supply: 19 ÷ 50V DC; 16 ÷ 35V AC or 85 ÷ 260V AC/DC
Power consumption: 15 VA typical; 20 VA max.
Communication interface:
  standard: RS-485 (Modbus RTU), 1 x USB Host
  with ACM module: 2 x RS-485, 1 x RS-485/232,1 or 2 x USB Host,
  1 x Ethernet
  with ETU module: 1 or 2 x USB Host, 1 x Ethernet
Protection:
  IP 65 (front) for version without front USB, available
  with additional sealing frame IP 65 for panel,
  IP 40 (front) for version with front USB
  IP 54 (front) for version with front USB with add. transparent door
Data memory: internal 2 GB or 4GB
Working temperature: 0°C to +50°C (-20°C to +50°C as an option)
Storage temperature: -10°C to +70°C (-20°C to +70°C as an option)
Case style: panel mounting

PMS-110R
Display: 3.5" graphic TFT, 16-bit colour, 320 x 240 pixels,
           touchscreen navigation
Measuring inputs:
  - 48 analogue inputs (0/4-20 mA, 0/1-5V or 0/2-10V) max.
  - 48 digital inputs max.
  - 24 Thermocouple inputs max. (J,K, S, T, N, R, B, E)
  - 12 RTD inputs max.
  - 12 universal inputs (U/I/RTD/TC/mV) max
  - 12 counter inputs max
  - 12 flowmeter/ratemeter inputs
Digital input: 1 x 24V DC, optocoupled
Sensor supply: 24 V DC ± 5% (200 mA max. for version with current inputs)
Outputs:
  - 8 analog (4-20 mA)
  - 16 relay (1A/250V)
  - 4 relay 5A/250V max.
  - 48 SSR outputs
  Remote inputs and outputs available, via RS-485/Modbus RTU
Case dimensions: 96 x 96 x 100 mm
Panel cut-out dimensions: 90.5 x 90.5 mm
Installation depth: 102 mm min.
Panel thickness: 5 mm max

PMS-111R
Display: 5.7" graphic TFT, 16-bit colour, 320 x 240 pixels,
           touchscreen navigation
Measuring inputs:
  - 72 analogue inputs (0/4-20 mA, 0/1-5V or 0/2-10V) max.
  - 72 digital inputs max.
  - 36 Thermocouple inputs max.(J,K, S, T, N, R, B, E)
  - 18 RTD inputs max.
  - 18 universal inputs (U/I/RTD/TC/mV) max
  - 12 counter inputs max
  - 18 flowmeter/ratemeter inputs
Digital input: 1 x 24V DC, optocoupled
Sensor supply: 24 V DC ± 5% (200 mA max. for version with current inputs)
Outputs: - 18 analog (4-20 mA) max
  - 36 relay (1A/250V)
  - 18 relay 5A/250V max
  - 72 SSR outputs
  Remote inputs and outputs available, via RS-485/Modbus RTU
Case dimensions: 144 x 144 x 100 mm
Panel cut-out dimensions: 138,5 x138,5 mm
Installation depth: 102 mm min.
Panel thickness: 5 mm max

Optional accessories

- USB/RS-485 converter
- RS-232/RS-485 converter

Transparent door with
moulded frame with key

* R81 and R45 output modules of PMS-110R must be installed in slot C only.
If two relay output modules are needed than they must be installed in slots B and C.

Ordering code

PMS-110R
PMS-111R/___ /___ /___ /___ /___ /___ /___ /

Logging capability:
L1: With logging capabilities
L0: Without logging capabilities

Modules:
slot A: choose module
slot B: choose module
slot C: choose module

Power supply:
1. 19..50V DC or 16..35V AC
2. 85V...260V AC/DC

Internal memory:
empty: 2GB (standard version)
4GB: 4GB

Communication options:
AA: rear USB host   **AB:** front USB Host
AC: rear and front USB Host   **BA:** ACM module
BB: ACM module, front USB Host **CA:** ETU module
CB: ETU module, front USB Host

Module	Description	PMS-110R			PMS-111R		
		Slot A	Slot B	Slot C	Slot A	Slot B	Slot C
P	empty slot	O	O	O	O	O	O
EFUN4	4 x universal inputs	O	O	O	O	O	O
EFUN6	6 x universal inputs	O	O	O	O	O	O
UN3	3 x universal inputs, isolated	O	O	O	O	O	O
UN5	5 x universal inputs, isolated				O	O	O
I16	16 x current input	O	O	O	O	O	O
I24	24 x current input				O	O	O
IS6	6 x current input, isolated	O	O	O	O	O	O
U16	16 x voltage input	O	O	O	O	O	O
U24	24 x voltage input				O	O	O
UI4	4 x voltage input + 4 x current input	O	O	O	O	O	O
UI8	8 x voltage input + 8 x current input	O	O	O	O	O	O
UI12	12 x voltage input + 12 x current input				O	O	O
UI4N8	4 x voltage inputs + 4 x current inputs + 8 x NTC inputs	O	O	O	O	O	O
UI4D8	4 x voltage inputs + 4 x current inputs + 8 x digital inputs	O	O	O	O	O	O
UI8N8	8 x voltage inputs + 8 x current inputs + 8 x NTC inputs				O	O	O
UI8D8	8 x voltage inputs + 8 x current inputs + 8 x digital inputs				O	O	O
RT4	4 x RTD input	O	O	O	O	O	O
RT6	6 x RTD input				O	O	O
TC4	4 x TC input	O	O	O	O	O	O
TC8	8 x TC input	O	O	O	O	O	O
TC12	12 x TC input				O	O	O
D8	8 x digital input, isolated	O	O	O	O	O	O
D16	16 x digital input, isolated	O	O	O	O	O	O
D24	24 x digital input, isolated				O	O	O
CP2	2 x pulse input (universal counters), isolated	O	O	O	O	O	O
CP4	4 x pulse input (universal counters), isolated	O	O	O	O	O	O
HM2	2 x hourmeters, isolated	O	O	O	O	O	O
HM4	4 x hourmeters, isolated	O	O	O	O	O	O
FT2	2 x pulse input (flowmeters / ratemeters) + 2 x current input	O	O	O	O	O	O
FT4	4 x pulse input (flowmeters / ratemeters) + 4 x current input	O	O	O	O	O	O
FI2	2 x current input (flowmeters) + 2 x current input	O	O	O	O	O	O
FI4	4 x current input (flowmeters) + 4 x current input	O	O	O	O	O	O
R81*	8 x SPST relay 1A output		O	O	O	O	O
R121	12 x SPST relay 1A output				O	O	O
R45*	4 x SPDT relay 5A output			O	O	O	O
R65	6 x SPDT relay 5A output				O	O	O
S8	8 x SSR output			O	O	O	O
S16	16 x SSR output			O	O	O	O
S24	24 x SSR output				O	O	O
IO2	2 x 4-20 mA output		O	O	O	O	O
IO4	4 x 4-20 mA output		O	O	O	O	O
IO6	6 x 4-20 mA output				O	O	O
IO8	8 x 4-20 mA output				O	O	O