P210
Advanced digital Weighing Indicator
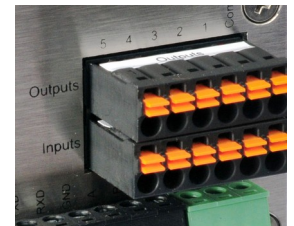
GENERAL FEATURES

- Up to 1600 measurements per second
- 16,000,000 internal resolutions
- Up to 100000 scale divisions
- OIML R76 Approved models
- Up to 8x 350 Ω load cells
- Programmable for tension - compression testing with analogue output.
- Ergonomic design with small size
- 13.5 mm LED display
- Multiple units (g, kg, t, lb, klb, N, kN)
- vCal Electronic calibration from PC
- Linearity correction
- Gravity compensation adjustment
- Programmable via PC
- RS-232C & RS-485 serial interface
- 12 - 28 VDC supply
- up to 4 digital inputs, 5/6 Relay contact outputs
- Output Relays can be controlled by PLC

APPLICATIONS

- Process and industrial weighing (silos, tanks, hoppers, etc.)
- Bi-directional force measurement
- Testing laboratories

SYSTEM INTEGRATION

- RS-232C, RS485
- Ethernet TCP/IP
- Modbus RTU
- Modbus TCP
- Profibus
- Profinet
- EtherNet/IP
- EtherCAT
- CANopen
- DIN rail

...Azure Signature Series!

The PT210 is a smart indicator for industrial weighing process applications offering powerful PLC integration facilities; standard serial ports such as RS-232C, RS-485, up to 4 digital inputs and 5 relay outputs.

The PT210 series, apart from the PT210DIN, is approved by Weights & Measures Authorities for use in Accuracy Class III applications with 10000 scale intervals in accordance with OIML R76.

The PT210 is available in a range of versions to connect by various fieldbus protocols such as Ethernet, Modbus, PROFIBUS, PROFINET, CANopen and also a version with analogue output. There is one DIN rail mount version with Analogue and ModBus RTU.

Powerful calibration options including vCal, Electronic calibration without test weights supporting fast easy setup and service. The PT210 features adaptive filtering for fast settling, high display resolution and a speed of up to 1600 conversions per second.

It's small size aluminium body is perfect for panel installations, providing a big display and requiring little space on control panels. The instrument has a stainless steel front for use in harsh environments.

Accupoint weigh module

Model Selection

Feature	PT210MB	PT210AN	PT210EN	PT210PB	PT210PN	PT210EI	PT210EC	PT210CO	PT210DIN
RS-232C	1 port	1 port	1 port	1 port	1 port	1 port	1 port	1 port	1 port
RS-485	1 port	1 port	1 port	1 port	1 port	1 port	1 port	1 port	1 port
Isolated Inputs	4	4	4	4	4	4	4	4	4
Outputs (relay)	5	5	5	5	5	5	5	5	6
ModBus	RTU on RS-485	RTU on RS-485	RTU/TCP w. Ethernet	RTU on RS-485	RTU on RS-485	RTU on RS-485	RTU on RS-485	RTU on RS-485	RTU on RS-485
Analogue Output		4−20, 0−20mA 0−5, 0−10VDC							4−20, 0−20mA 0−5, 0−10VDC
Ethernet			YES						
PROFIBUS (DPV1)				YES					
PROFINET					YES				
EtherNet/IP						YES			
EtherCAT							YES		
CANopen								YES	

ISO 9001 · SGS

ESTABLISHED IN 1979

CE

Rev.2020.2

BETTER VALUE BY DESIGN

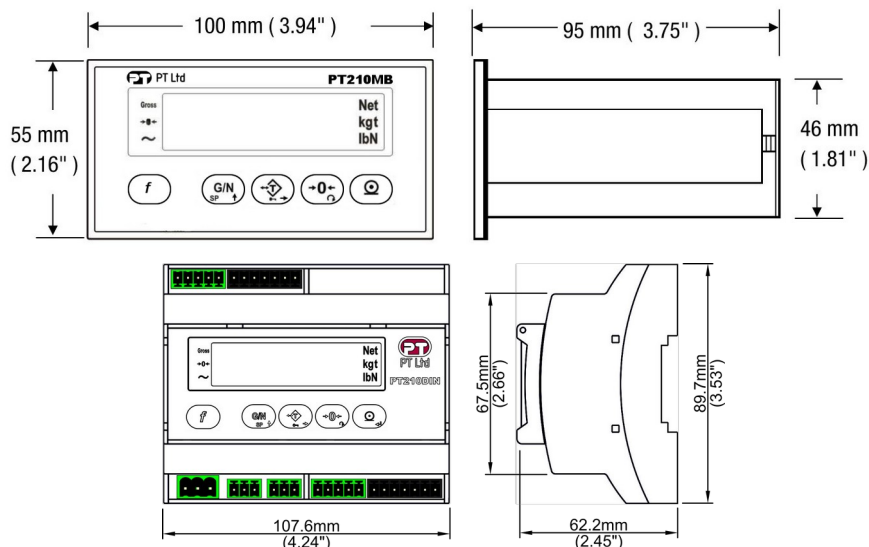# PT210 SPECIFICATIONS

Accuracy	OIML R76 Class III 10000 scale intervals
Display	6 digits, 7 segments red LED, 13.5 mm high
Resolution	Max. Displayed 999999, internal 16000000, 24 bit Delta Sigma ADC
Conversion Rate	Up to 1600 times per second
Units display	g, kg, t, lb, klb, N, kN
Display Annunciators	Gross, net, motion, centre of zero, units
Keypad (with access lock)	5 key (user assignable Function, G/N, Tare/Clear, Zero, Print)
Linearity error	< 0.0015% FSO
Temperature Coefficient	< 2 ppm/ºC
Excitation	5V, 120mA max. (up to 8x 350Ω or 16x 700Ω load cells, 4 or 6 wire)
Input sensitivity	Minimum 0.1 µV/division (0.4 µV/d approved);
Input voltage range (configurable)	0mV to +18mV (weighing); -18mV to +18mV (bidirectional force)
Zero adjustment input range	-18mV to +18mV
Operating Environment	-15ºC to +55ºC (40ºC for DIN); max. 85% RH, non-condensing. IP67 with front panel sealing.
Enclosure	Stainless steel front panel, aluminium casing, stainless rear. (PT210DIN, polycarbonate)
Dimensions	100mm x 55mm panel, 100mm deep. 1/8DIN cutout. (PT210DIN 108 x 90 x 62)
Power Supply	12-28VDC max., 300mA.

FEATURES

Calibration	Span calibration with weights, even without without zero calibration. vCal for calibration by direct entry of load cell characteristics. Calibration of span and zero by fieldbus commands.
Digital filter	Adaptable filter adjustable in 10 steps
Weighing functions	Tare, zeroing, auto zero track, motion detection, auto-zero at power up, peak hold, hold
Other functions	Pre-settable label (print ticket) count number, gross or tare indication

INTERFACES (varies with model)

Input/Output	Up to 4 programmable inputs (12-28VDC) for zero, tare, clear, hold, peak, print, etc., up to 5 relay outputs (6 for PT210DIN) 250 VAC or 30 VDC, 1A for weight setpoints or fieldbus control.
Analogue	Configurable to 4–20 mA, 0–20 mA (max. 500Ω, 300m), 0–5 VDC or 0–10 VDC
RS-232	1200 to 115200 baud, 7E1, 7O1 or 8N1. Continuous output, Command or BSI mode.
RS-485	1200 to 115200 baud, 7E1, 7O1 or 8N1. Continuous output, Command or BSI mode.
Modbus RTU	1200 to 115200 baud, programmable, up to 31 units on the RS-485 bus
Modbus TCP (on Ethernet)	10 Mbit/s (half duplex), galvanically isolated
PROFIBUS	PROFIBUS DP V1. 9.6 kbit/s to 12 Mbit/s automatic baud rate detection
PROFINET	100 Mbit/s (full duplex), galvanically isolated
EtherNet/IP	10 or 100 Mbit/s (full duplex), galvanically isolated
EtherCAT	100 Mbit/s (full duplex), galvanically isolated
CANopen	10 kbit/s to 1 Mbit/s automatic baud rate detection

ESTABLISHED IN 1979

Rev.2020.2

BETTER VALUE BY DESIGN