RADWAG®

measuring indicators

Manufacturer of Electronic Weighing Instruments

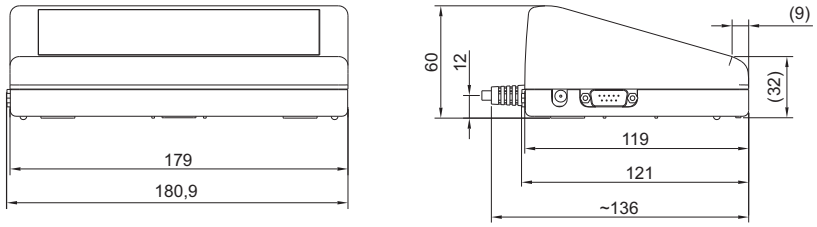
www.radwagusa.com

CONTENTS

PUE C/31 MEASURING INDICATORS

Functions of measuring indicator series PUE C/31:

- measure units: [g], [kg], [N], [ct], [lb];
- tarring in whole measure range;
- automatic tare, tare memory;
- counting pieces with the some mass of piece;
- +/- mass control of set reference mass;
- per cent deviation from set reference mass;
- averaging of weighing result, digital filter;
- control of power supply from batteries;
- timer switch off of the scale;
- adjusting backlit when operating on batteries;
- adjustable band rate of transmission between 2400-38400bit/s;
- continuous transmission of data through RS 232;
- manual or automatic mode for RS 232;
- weighing loads with autozero or without;
- measurement of maximal force on the weighing pan or maximal mass placed on weighing pan;
- measurement of force influencing the weighing pan (in Newtons);
- control of start mass;
- possibility of connecting additional LCD display;
- totalizing function of measurements.



Technical data:

	PUE C/31
Display	LCD
Keyboard	membrane
Quantity of buttons	5
Maximal quantity of verifying units	6000 e
Maximal quantity of countings from A/C converter	838 860 × 10
Maximal increase of signal	19,2 mV
Maximal voltage on one verifying unit	3,2µV
Minimal voltage on one verifying unit	1,0µV
Working temperature	-10° - +40°C
Minimal impedance of load cell	80 Ω
Maximal impedance of load cell	1200 Ω
Connection of load cells	4 or 6 cables + shield
Multi range	1 or 2 ranges
Excitation voltage	5V DC
Interface	RS 232
Aditional display	LCD (option)
Casing	ABS plastic
IP rating	IP 43
Standard power supply	230V/11V AC or 120V/11V AC and 6×NiMH AA
Optional power supply	10-18V DC Imax=600mA
Means of power supply	power adapter batteries NiMH 6×AA
Average operation time on accumulators	35 h

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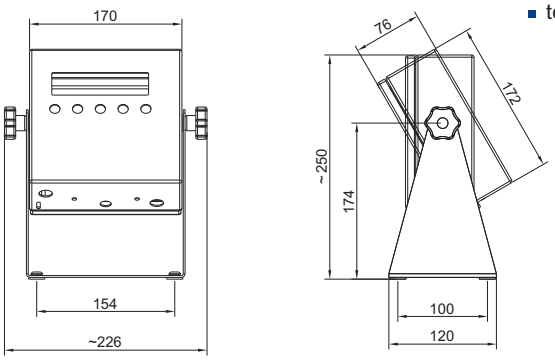
PUE C/31H MEASURING INDICATORS

Functions of measuring indicator series PUE C/31H:

- measure units: [g], [kg], [N], [ct], [lb];
- tarring in whole measure range;
- automatic tare, tare memory;
- counting pieces with the some mass of piece;
- +/- mass control of set reference mass;
- per cent deviation from set reference mass;
- averaging of weighing result, digital filter;
- control of power supply from batteries;
- timer switch off of the scale;
- adjusting backlit when operating on batteries;
- adjustable band rate of transmission between 2400-38400bit/s;
- continuous transmission of data through RS 232;
- manual or automatic mode for RS 232;
- weighing loads with autozero or without;
- measurement of maximal force on the weighing pan or maximal mass placed on weighing pan;
- measurement of force influencing the weighing pan (in Newtons);
- control of start mass;
- possibility of connecting additional LCD display;
- totalizing function of measurements.



Technical data:

	PUE C/31H	PUE C/31H/Z
Display	LCD	
Keyboard	membrane	
Quantity of buttons	5	
Maximal quantity of verifying units	6000 e	
Maximal quantity of countings from A/C converter	838 860 × 10	
Maximal increase of signal	19,2 mV	
Maximal voltage on one verifying unit	3,2μV	
Minimal voltage on one verifying unit	1,0μV	
Working temperature	-10° - +40°C	
Minimal impedance of load cell	80 Ω	
Maximal impedance of load cell	1200 Ω	
Connection of load cells	4 or 6 cables + shield	
Multi range	1 or 2 ranges	
Excitation voltage	5V DC	
Interface	RS 232	
Aditional display	LCD (option)	
Casing	stainless steel	
IP rating	IP 66/67	
Standard power supply	110-120VAC 60Hz and 220-240VAC 50Hz and SLA 6V/3,4Ah	230V/11V or 120V/11V AC and SLA 6V/3,4Ah
Optional power supply	-	10-18V DC Imax=600mA
Means of power supply	power supply cable built in get cell SLA accumulator	power adapter for charging battery built in SLA battery
Average operation time on accumulators	45 h	

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PUE C/31H/EX MEASURING INDICATORS

Measuring indicator series PUE C/31H/EX and scales constructed on its basis cab be utilized in expolsive zones 1 and 2 of mixtures of gases, vapours and fogs with air, which are included in exposive group II and temperature classes T1, T2, T3, T4.

Safety of measuring indicator and scales using PUE C31H/EX is guaranteed by such means as:

- power supply of the indicator from power adapter ZRi02 II (2) G [EEx ib] IIC 06ATEX251 manufactured by RADWAG, and situated outside expolsive zone or another power adapter with parameters adequate for spark secured circuit.

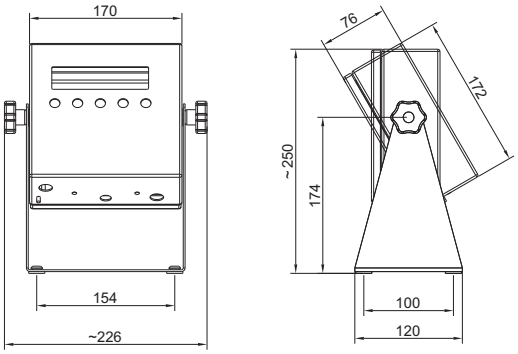
- spark secured casing of measuring indicator series PUE C31/H/EX, being in conformity with norms: PN-EN 50014 and PN-EN 50020 and confirmed by a certificate KDB 06ATEX250

- application of transducers with exposive safety certificates

- manufacturing of the indicator according to requirements of a norm PN-EN 13463-1 on non-electrical elements of a scale

- user obligation to obey safety precautions as indicated in the user manual of the measuring indicator

CAUTION:
Scale equipped with a measuring indiocator series PUE C/31H/EX are fed from power adapter ZRi02 II (2) G [EEx ib] IIC 06ATEX251 manufactured by RADWAG, situated outside the explosive zone or another power adapter with parameters adequate for spark secured circuit.



Technical data:

	PUE C/31H/EX
Display	LCD
Keyboard	microswitch
Quantity of buttons	5
Maximal quantity of verifying units	6000 e
Maximal quantity of countings from A/C converter	8388608
Maximal increase of signal	19,5 mV
Maximal voltage on one verifying unit	3,25 µV
Minimal voltage on one verifying unit	1,0 µV
Working temperature	-10° - +40 °C
Minimal impedance of load cell	125 Ω
Maximal impedance of load cell	1200 Ω
Connection of load cells	4 or 6 cables + shield
Multi range	1 or multi-ranges
Casing	stainless steel
IP rating	IP 66/67
Power supply	power adapter ZRi02 II (2) G [EEx ib] IIC
Symbol	II 2 G EEx ib IIC T4 KDB 06ATEX250

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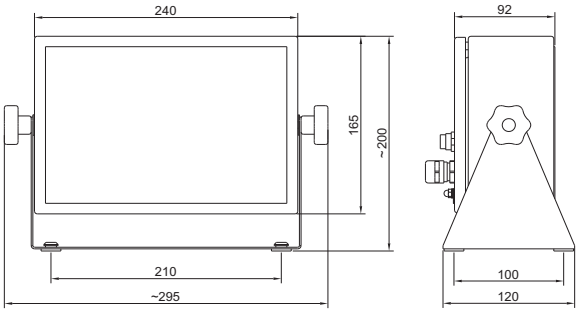
PUE C41H MEASURING INDICATORS



Basic functions of indicator series PUE C41H:

- Measuring units: [g], [kg], [N], [ct], [lb], [oz];
- Automatic dosing: single and dual threshold;
- Creation of mixtures according to set formulation;
- Tarring in whole measuring range;
- Automatic tare, tare memory, manual insertion of tare mass;
- +/- control with reference to standard mass;
- Percent deviation with reference to standard mass;
- Averaging of weighing result, digital filter;
- Control of Power Supply from batteries; Backlit adjustment while supplying from battery; Timer switch off;
- Adjustable speed of transmission in range between 1200-115200bit/s;
- Continuous transmission of data by RS 232;
- Manual or automatic mode for RS 232; Weighing loads with switched off autozero function;
- Measurement of maximal force influencing the weighing platform;
- Measurement of force influencing the weighing platform in Newtons;
- Control of starting mass;
- Possibility of connecting additional LCD display;
- Summing of weighing.
- Modular construction (depending on needs, electronic set can be extender by additional modules installed inside the indicator casing): analog modules (AN 0-10V, AN 4-20mA, AN 0-20mA), additional relay modules (PK 1), additional A/C relay module (DP 1), in/out module(WE 8, WE 4), RS 485 module (RS 1D) and Ethernet module (ET 1G, ET 1D).

Technical data:

	PUE C41H	
Display type	LCD	
Casing	stainless steel	
Keyboard type	membrane	
Power Supply	85-265V AC 50/60 Hz, battery 6V 3Ah – operation time up to 9 h (buffer power supply)	
Data base size of the indicator	total memory size for data base: 4 MB	
Maximal quantity of divisions from converter	8 388 608	
OIML class	III	
Quantity of verifying units	6 000	
Maximal increase of signal	19mV	
Maximal voltage on 1 verifying unit	3,3 µV	
Minimal voltage on 1 verifying unit	1µV	
Minimal impedance of load cell	90 Ω	
Maximal impedance of load cell	1200 Ω	
Power voltage of load cell	5V	
Connection of load cells	4 or 6 cables + screen	
Working temperature	-10°C ÷ +40°C	
IP rating	IP 66/67	
Optoinsulated interfaces	RS 232 & RS 485	- (standard)
Inputs / outputs	3 optoinsulated inputs, 3 optoinsulated outputs;	- (standard)
	possibility of installing external PRINT and TARA buttons	- (option)
	4 optoinsulated inputs, 4 optoinsulated outputs	- (option)
Input / output module	8 reed relay outputs, 8 reed relay inputs	- (option)
Ethernet module	compatible with standard 10/100Mbit/s	- (option)
Analog output module	operation mode – 4-20mA, 0-20mA, 0-10V	- (option)
Relay module	4 relays with short circuiting switch	- (option)
Additional weighing platform module	metrological parameters as in main platform	- (option)

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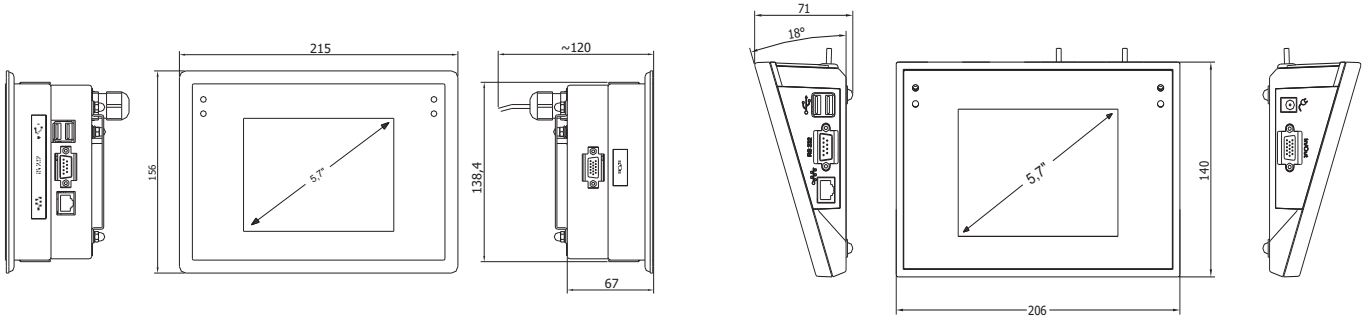
PUE 7 MEASURING INDICATOR

PUE 7 weighing indicators are intended for building industrial scales. It can be enclosed in a plastic or stainless steel housing for rack installations. It is equipped with a 5.7” colour graphic display with touch panel and membrane keypad. It also has installed two proximity detectors with programmable functionality.

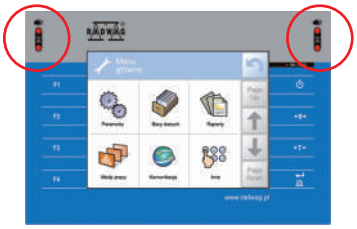
Two platforms can be connected to the indicator. As regards peripherals, following devices can be connected: barcode scanners, receipt and label printers, transponder card readers and typical PC equipment (keybord, mouse etc.).

Software:
- standard,
- counting pieces with labelling,
- dosage with recipes,
- KTP (CPG) for prepackages.



Infrared proximity sensors

Optional functions:
- PRINT function
- TARE function
- sensor's sensitivity adjustment



Interface communication

Technical data:

	PUE 7	PUE 7/P (panel)
Housing	plastic	stainless steel
IP rating	IP 54	front IP 66/67, whole IP 32
Proximity sensors	2	-
Power supply	120÷230VAC; 10÷15VDC	10÷15VDC
Display	5,7" with touch panel	
Keypad	8 keys	
Operation Temperature	-10°C ÷ 40°C	
OIML class	III	
Maximum number of verification intervals	6 000	
Maximum input signal increase	19,5 mV	
Maximum voltage per verification interval	3,25 µV	
Minimum voltage per verification interval	0,5 µV	
Minimum tensometer impedance	80 Ω	
Maximum tensometer impedance	1200 Ω	
Tensometer bridge excitation voltage	5 V	
Processor	ARM 200 MHz	
Memory	RAM 64 MB, Flash 1 GB	
Operation System	Windows CE 6.0	
Number of platforms	2	
Additional weighing platform module	Metrological parameters as in main platform (option)	
Interfaces	2×RS 232, 2×USB, Ethernet, 4in / 4out	

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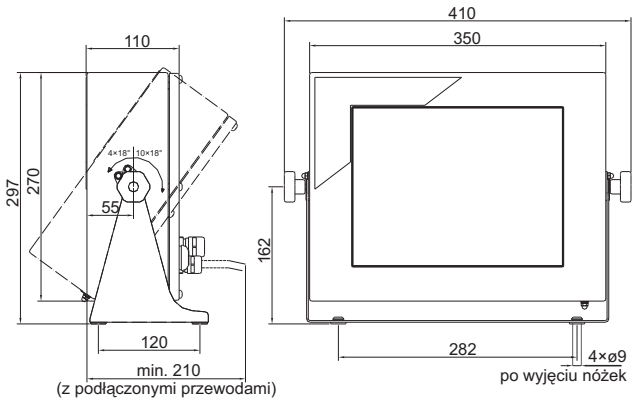
PUE 5 MEASURING INDICATORS

Measuring indicator PUE 5 is suitable for scales with maximal resolution 6000e.

Measuring indicator in stainless steel casing with 12" touch screen. Power supply 88-264 V AC, 50-60 Hz in standard RS 232C, RS485 and Ethernet connection, USB 2.0×2, 4 in/ 4 out.
Load cell supply +5V.



Technical data:

	PUE 5
Casing	stainless steel
IP rating	IP67
Screen	LCD 12,1" (800×600) touch screen
Power supply	88-264 VAC 50-60Hz
Power supply of external devices	2×5 V 500 mA
Working temperature	work: 0°C ÷ +40°C, storage: -20°C ÷ +60°C
Maximal quantity of divisions from converter	8 388 608
OIML Class	III
Maximal quantity of verifying units	6 000
Maximal increase of signal	19 mV
Maximal voltage on 1 verifying unit	3,3 µV
Minimal voltage on 1 verifying unit	1 µV
Minimal impedance of load cell	90 Ω
Maximal impedance of load cell	1200 Ω
Power voltage of load cell	5 V
Connection of load cells	4 or 6 cables + screen
Procesor	Celeron M 800MHz
Chipset	INTEL 855GME
RAM memory	DDR 512MB
Data memory	HDD 40GB or Flash Disk
Graphic card memory	max. 64MB
Ethernet	10/100 Mbps
Optoinsulated interfaces	RS 232C, RS 485
USB interface	2 × USB 2.0 (max. intensity 500mA)
In/out	4 in, 4 out
Optional equipment:	
Additional weighing platform module	metrological parameters as In main platform
In/out modul	additional 8 in/out
Profibus DP V1 interface	slave working mode

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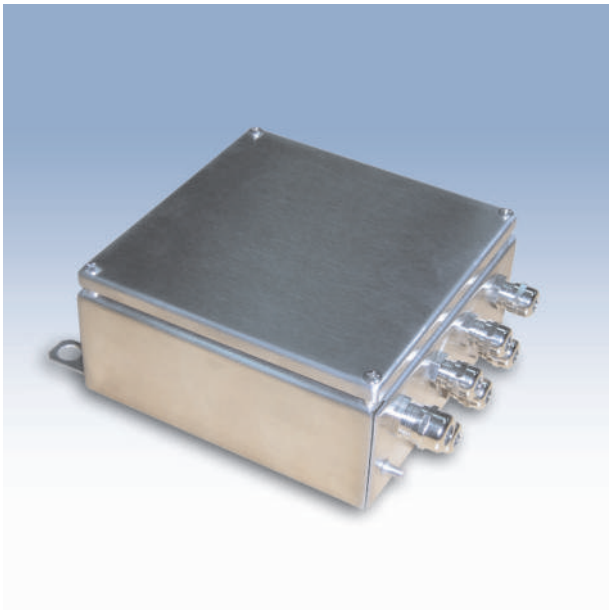
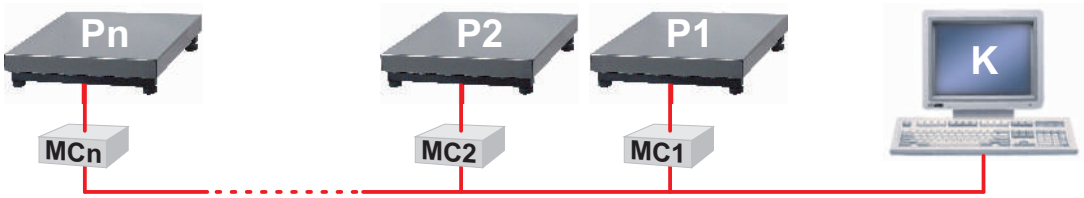
DIGITAL MODULES



Application and functions of digital modules:

- measuring units [g], [kg], [t];
- tarring in all measuring range;
- changeable speed of transmission between 9600-57600bit/s;
- possibility of addressing;
- restoring default setting by putting on the jumper;
- extended communicational protocol;
- protection against access to factory parameters (jumper).

Digital modules are applicable in extended weighing systems connected in network by RS485 and controlled by a supervising computer (system):



P1, P2,... Pn - weighing platforms with 1 or 4 load cells (minimal resistance of load cells 90 Ω)
MC1, MC2,... Mcn - digital module
K - PC computer

Technical data:

	MC
Maximal resolution	3 000 divisions
Maximal quantity of divisions from converter	1 000 000 divisions
Speed of processing	57 /s, 114 /s, 187 /s
Maximal increase of signal	20 mV
Minimal voltage per verifying unit	1,1 l'µV
Working temperature	-10°C - +40°C
Minimal resistance of load cells	90 Ω
Maximal resistance of load cells	1200 Ω
Connection of load cells	4 or 6 cables + shield
Power consumption	20 mA (230V), 250mA (for power supply 10,5V)
Voltage on load cells	5V DC
Power supply	230V / 120V AC
Interface	RS 232, RS 485 (insulated)
Speed of transmission	9600 - 38400 bps
IP rating	IP 54 (plastic casing), IP 67 (stainless steel casing)

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RADWAG®

RADWAG company, the manufacturer of Electronic Weighing Instruments is the biggest producer of balances and scales in Poland. Our range of products covers: modern laboratory balances, industrial and medical scales, weighbridges and checkweighers.

RADWAG has introduced and documented quality system ISO 9001:2000 and it is the only manufacturer of weighing instruments in Poland, which is authorized to issue "EC Declaration of Conformity" confirming the verification of its products.

RADWAG manufactures weighing equipment from the most precise balances (d=0,1 μg, Max: 2g) to high capacity scales, like weighbridges (Max: 60000 kg, d=20kg). Our offer includes also scales for meat and fish industry, complex weighing systems like dosing of labelling systems and multi stand weighing systems.

RADWAG has extended sales net created by our sales offices in Poland, and numerous authorized distributors all over the world. RADWAG exports its goods to all countries of European Union, and also to USA, Africa and to Far East.

TÜV CERT
Certificate No. 71 100 C 206
DIN EN ISO 9001:2000

OIML

PZH

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