

PUE HX5.EX MEASURING INDICATOR



release date 24-11-2017



PUE HX5.EX



IM01.EX



PM01.EX

Intended Use

HX5.EX indicator is a device used to make multifunctional weighing instruments based on load cells. It is the latest RADWAG solution intended for hazardous areas, the device is compliant with ATEX directive. Due to its mechanical design, the HX5.EX can be used in environment filled with explosive gases and dust. It can be operated in zones: 1/21 and 2/22.

Housing

The housing is made of AISI 304 stainless steel of high protection class: IP66 / IP68. The indicator features 5" colour LCD display covered with polycarbonate that protects it against shocks, and membrane keyboard. Ease of operation, clear menu and intuitive information arrangement on the display guarantee comfort of operation. Hermetic, intrinsically safe interfaces connectors are located on the back side of the housing. Stable mount bracket enables mounting the terminal either on any flat horizontal surface or on the wall where its inclination angle can be easily adjusted.

The indicator is powered by intrinsically safe power supply that can be operated in hazardous and safe areas.

FUNCTION:

- PARTS COUNTING
- PERCENT WEIGHING
- STATISTICS
- CHECKWEIGHING
- GLP PROCEDURES
- NEWTON UNIT MEASUREMENT
- REPLACEABLE UNIT
- ALIBI MEMORY

Communication Interfaces

The indicator is equipped with the following communication interfaces enabling cooperation with devices located in Ex area:

- 2 x RS232, 1 x RS485, 4 digital I/O.

The interfaces range can be expanded using IM01.EX communication module, connected to a indicator via intrinsically safe interface, placed outside hazardous area.

IM01.EX Communication Module Characteristics

Standard design:

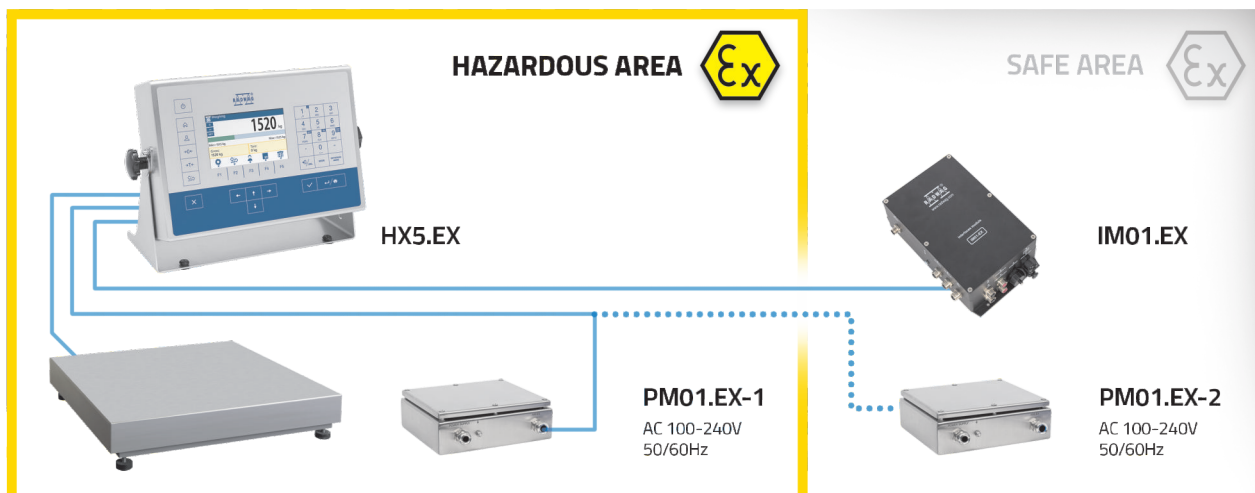
- 1 x Ethernet, 2 x RS232, 1 x USB, 4 digital I/O.

Optional solution:

- 1 x Profibus DP, analog output 4-20mA/0-10V, up to 12 digital I/O.

WEIGHING SYSTEM IN HAZARDOUS AREA

Block diagram of a system based on PUE HX5.EX indicator operating in hazardous area:



MULTIFUNCTIONAL SOFTWARE:

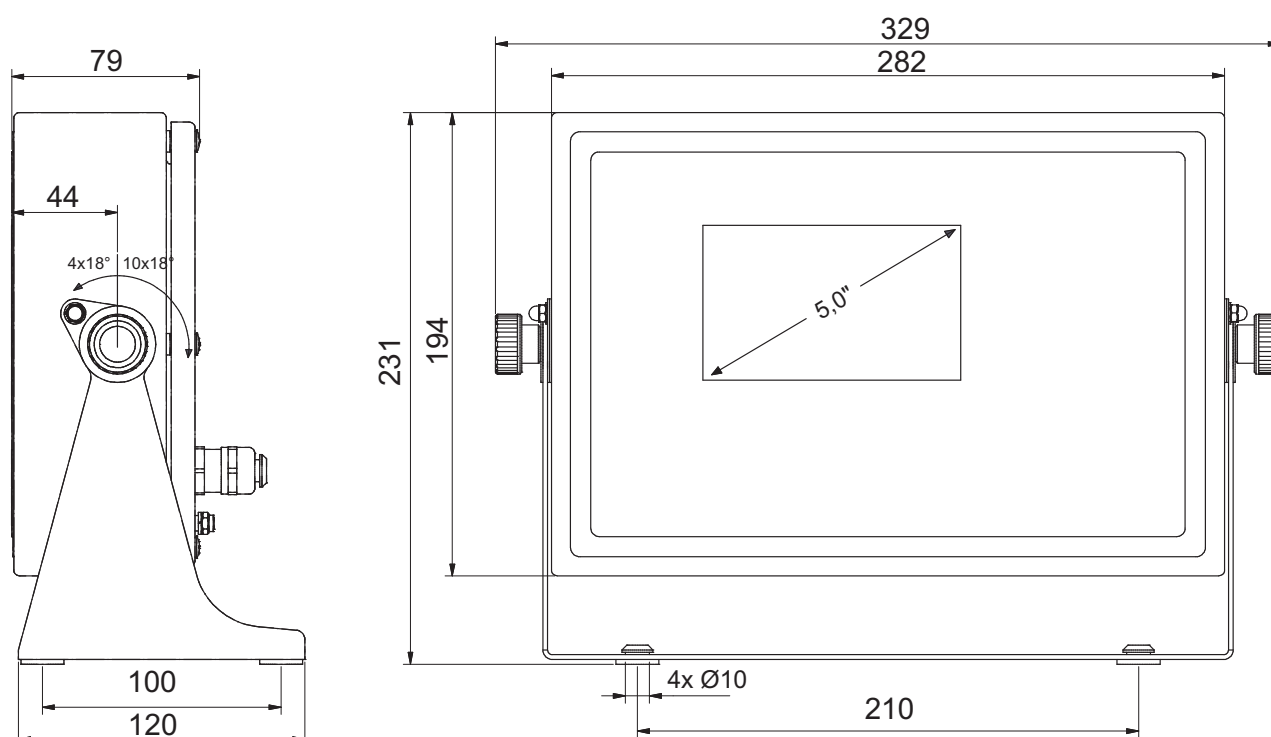
Indicator software allows carrying out processes such as weighing, parts counting, dosing, formulations and percent weighing. Information system is based on numerous databases: operators, products, weighings, packaging, formulations, customers, and on Alibi memory guaranteeing stored data safety. The interfaces enable cooperation between the indicator and the accessories intended for operation in hazardous and safe areas. Accessories: barcode scanners, printers, external displays, control buttons, light signalling towers and other controlling/signalling devices. The indicator can cooperate with systems for automatic process control and superior IT systems.

Technical specification:

	PUE HX5.EX
Verification unit [e]	6 000
Certificate	ATEX
Protection class for gases	II 2G Ex ib IIC T4 Gb
Protection class for dust	II 2D Ex ib IIIC T60°C Db
Zones	(gazy) 1, 2 (pyły) 21, 22
OIML	III
Minimum voltage per verification unit	0,4 μ V
Minimum impedance of load cell	80 Ω
Maximum impedance of load cell	1200 Ω
Load cells connection	4 or 6 wires + shield
Housing	Stainless steel
Protection class by PN-EN 60529	IP 66 / IP 68 (1,5m)
Display	5" colour widescreen display 800x480
Keypad	Numeric + function keys
RS232 interface	2
RS485 interface	1
IN / OUT	4 DI / 4 DO
Power supply	100 ÷ 240 V AC 50 / 60 Hz Intrinsically safe power supply
Power consumption	6 W
Operating temperature	-10°C ÷ +40°C
Relative air humidity	10% ÷ 85% RH, non-condensing conditions
Temperature: transport and storage	-20°C ÷ +60°C
Dimensions	340 × 231 × 120 mm
Net / Gross weight	4,3 kg / 8 kg (*)

* Mass for packaging comprising PUE HX5.EX indicator and PM01.EX power supply

Dimensions:



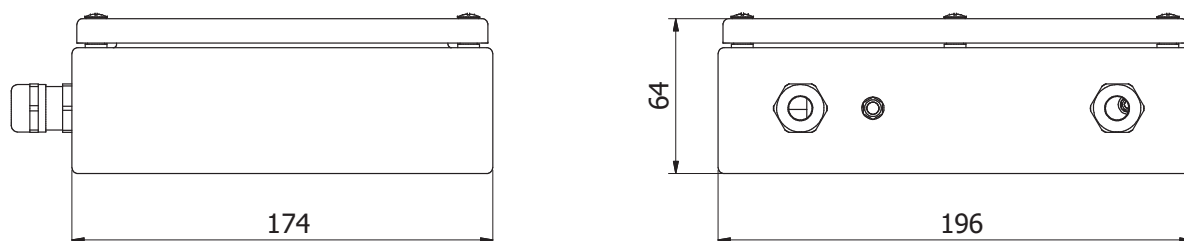
Technical specification:

INTRINSICALLY SAFE POWER SUPPLY	PM01.EX-1	PM01.EX-2
	for operation in hazardous area	for operation in safe area
Certificate	ATEX	ATEX
Protection class for gases	II 2G Ex eb mb [ib] IIC T4 Gb	II (2)G [Ex ib Gb] IIC
Protection class for dust	II 2D Ex tb [ib] IIIC T60°C Db	II (2)D [Ex ib Db] IIIC
Zones	1, 2 (gases), and 21, 22 (dusts)	Operation outside EX area + intrinsically safe circuits for operation in zone 1, 2 (gases), and 21, 22 (dusts)
Housing	Stainless steel	Stainless steel
Protection class by PN-EN 60529	IP 66 / IP 68 (1,5m)	IP 66 / IP 68 (1,5m)
Power supply	100 ÷ 240 V AC 50 / 60 Hz	100 ÷ 240 V AC 50 / 60 Hz
Power consumption	10 W	10 W
Operating temperature	-20°C ÷ +40°C	-20°C ÷ +40°C
Relative air humidity	10% ÷ 85% RH, non-condensing conditions	10% ÷ 85% RH, non-condensing conditions
Temperature: transport and storage	-20°C ÷ +60°C	-20°C ÷ +60°C
Dimensions	196 × 174 × 64 mm	196 × 174 × 64 mm
Net / Gross weight	3,5 kg / 8 kg (*)	3,5 kg / 8 kg (*)

* Mass for packaging comprising PUE HX5.EX indicator and PM01.EX power supply

Dimensions:

PM01.EX



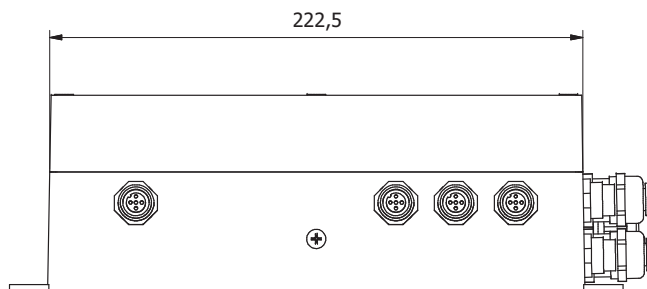
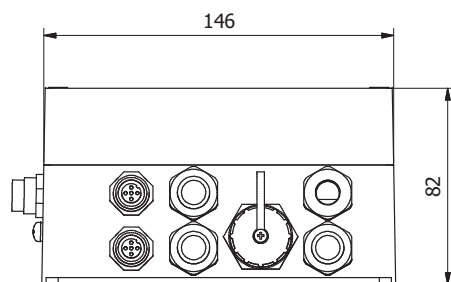
Technical specification:

Communication Module	IM01.EX
Certificate (hazardous area approval)	ATEX
Protection class for gases	II (2)G [Ex ib] IIC Gb
Protection class for dust	II (2)D [Ex ib] IIIC Db
Housing	Aluminium, powder-coated
Protection class by PN-EN 60529	IP 66 / IP 68 (1,5m)
Standard communication interfaces:	
- RS232	2
- ETHERNET	10/100 MBit (hermetic connector)
- USB	1
- IN / OUT	4 DI / 4 DO
Additional communication interfaces:	
- PROFIBUS DP	1
- Analog module	4-20 mA / 0-10 V
- IN / OUT	do 12 DI / do 12 DO
Power supply	100 ÷ 240 V AC 50 / 60 Hz
Power consumption	10 W
Operating temperature	-10°C ÷ +40°C
Relative air humidity	10% ÷ 85% RH, non-condensing conditions
Temperature: transport and storage	-20°C ÷ +60°C
Dimensions	222 × 146 × 81 mm
Net / Gross weight	1,9 kg / 2,5 kg

* Mass for packaging comprising PUE HX5.EX indicator and PM01.EX power supply

Dimensions:

IM01.EX



ACCESSORIES:

FOR INDICATOR HX5.EX:

Cables:

- PT0328: scale - RS485 (3 m)
- PT0329.2: scale - RS232 (2 m)
- PT0329.5: scale - RS232 (5 m)
- PT0329.10: scale - RS232 (10 m)

FOR COMMUNICATION MODULE:

Cables:

- PT0020.2: IM01 - RS232 (2 m)
- PT0020.5: IM01 - RS232 (5 m)
- PT0020.10: IM01 - RS232 (10 m)
- PT0019.2: printer RS232 (2 m)
- PT0019.5: printer RS232 (5 m)
- PT0019.10: printer RS232 (10 m)
- PT0256.2: IN/OUT cable (2 m)
- PT0256.5: IN/OUT cable (5 m)
- PT0256.10: IN/OUT cable (10 m)
- PT0084: USB-A cable
- PT0087: USB-B cable