RADWAG BALANCES AND SCALES
ADVANCED WEIGHING TECHNOLOGIES

Compliance with ATEX directive
Operation in hazardous area
Stainless steel housing of high protection class

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HX5 EX

INDICATOR FOR HAZARDOUS AREAS

HX5.EX is an indicator intended for industry designed to be used in hazardous areas. HX5.EX is compliant with ATEX directive.

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 and 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.

Mechanical Design
The housing is made of AISI 304 stainless steel of IP 66/68 protection class. The indicator is equipped with a membrane keypad and 5" colour graphic display covered with polycarbonate that protects it against shocks. Hermetic, intrinsically safe interfaces connectors are located on the back side of the housing. Stable mount bracket enables mounting the indicator either on any flat horizontal surface or on the wall where its inclination angle can be easily adjusted.
HX5.EX indicator is powered by intrinsically safe power supply that can be operated in both hazardous and safe areas.

Communication Interfaces
The indicator is equipped with the following communication interfaces enabling cooperation with devices located in hazardous area:
- RS 232 × 2 (barcode scanner, data transmission)
- RS 485 (data transmission),
- IN / OUT × 4 (external keys, dosing devices control, checkweighing thresholds signalling).

The interfaces range can be expanded using communication module, connected to a terminal via intrinsically safe interface RS485, placed outside hazardous area.

Communication Module
Standard design:
- Ethernet
- RS232x2
- USB
- 4 IN/4 OUT - digital (external keys, dosing devices control, checkweighing thresholds signalling)

Optional design:
- Profibus Dp (transmission of data with PLC controllers: mass, tare),
- 4-20mA/0-10V analog output (mass value indication),
- up to 12 digital IN/OUT (external keys, dosing devices control, checkweighing thresholds signalling),

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. Alibi memory guarantees 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.

Indicator	HX5.EX
Housing	Stainless steel
IP rating by PN-EN 60529	IP66 / IP68 (1.5 m)
Certificate (hazardous area approval)	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	(gas) 1, 2 (dust) 21, 22
Display	5" colour, graphic 800 × 480 px
Keypad	Numeric + function keys
OIML	III
Verification units [e]	6000
Minimum voltage per verification unit	0.4 µV
Minimum impedance of load cell	80 Ω
Maximum impedance of load cell	1200 Ω
Connection of load cells	4 or 6 wires + shield
Communication interfaces	RS232x2, RS485, 4DI, 4DO
Operating temperature	-10°C ÷ 40°C
Power supply	Intrinsically safe power supply PM01.EX 100-240VAC 50/60Hz
Dimensions	340 × 231 × 120 mm

Power supply	PM01.EX-1	PM01.EX-2
Housing	Stainless steel	Stainless steel
IP rating by PN-EN 60529	IP66 / IP68 (1.5 m)	IP66 / IP68 (1.5 m)
Certificate (hazardous area approval)	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
Intended use	Hazardous area	Safe area
Operating temperature	-20°C ÷ 40°C	-20°C ÷ 40°C
Power supply	100-240VAC 50/60Hz	100-240VAC 50/60Hz
Dimensions	196 × 174 × 64 mm	196 × 174 × 64 mm

Comm. module	IM01.EX
Housing	Powder coated aluminium
IP rating by PN-EN 60529	IP66 / IP68 (1,5 m)
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
Standard communication interfaces	Ethernet, RS232 × 2, USB, 4 DI, 4 DO
Additional communication interfaces	Profibus Dp, Analog module 4-20mA / 0-10V, Up to 12 DI and 12 DO
Operating temperature	-10°C ÷ 40°C
Power supply	100-240VAC 50/60Hz
Dimensions	222 × 146 × 81 mm