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Assembly manual

ITKM-001-02-12-21-EN

4-Load-Cell Scales HX5.EX with Ramp

DECEMBER 2021

PRECAUTIONS

Prior installing, using or maintaining the ramp scales, it is necessary to read ITKU-101-02-12-18-EN user manual. Use the device only as intended. The above user manual must be at a reach of the operator's hand in the course of device operation.

	Symbol marking sections that are extremely important for protection against explosion.
	The device must be applied in accordance with the intended use only.
	Prior installation of the ramp and start, it is necessary to analyse whether the device complies with the usage requirements regarding particular hazardous area.
	In case of any sign of damage, it is necessary to stop using the device immediately. The damaged component must be replaced or repaired by RADWAG service immediately.
	While installing the device, it is necessary to follow strictly this service manual requirements. Not adhering to the requirements results with loss of explosion safety.
	The ramps may be used as a component of device/set intended for operation in hazardous area. Manufacturer of such device/set is obliged to carry out analysis of the complete device/set in order to confirm compliance with standards.
	The ramps have to be electrically connected to a grounded platform at all times by an additional connecting cable.
	Do not apply protection shields.
	Technical condition of the frame must be tested and inspected by trained personnel, in accordance with this user manual, at least once every three months, and in accordance with this user manual.

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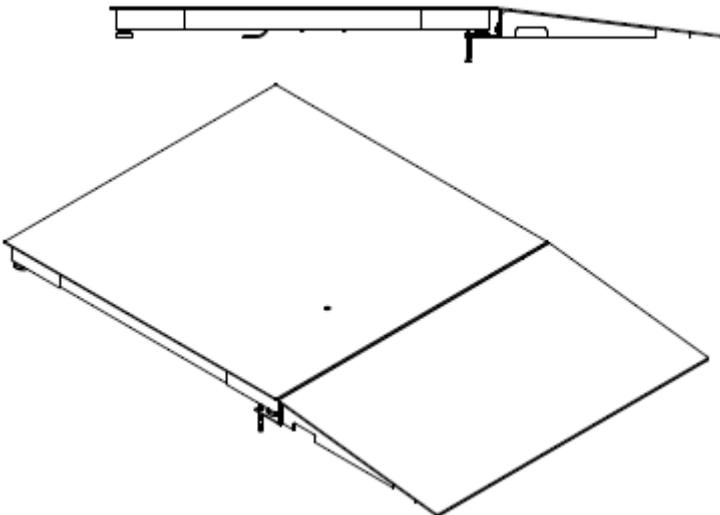
1. INTENDED USE

Ramps for HX5.EX... scales are intended for operation either inside or outside the building. Avoid exposing them to aggressive chemical vapours and extreme temperatures.

Ramps for HX5.EX-tt.4.xx.C... scales are made of powder coated steel and ramps for HX5.EX-tt.4.xx.H... scales are made of stainless steel. The difference in used material influences their intended use in a specific hazardous area:

- ramps made of powder coated steel can be used in zones **1 and 2** where there is a risk of explosion due to mixture of air with vapour, mist or gas, classified as explosion group **IIB and IIA** and as temperature class **T1, T2, T3, T4**;
- ramps made of stainless steel can be used in zones **1 and 2** where there is a risk of explosion due to mixture of air with vapour, mist or gas, classified as explosion group **IIC, IIB and IIA** and as temperature class **T1, T2, T3, T4**. It can also be used in zones **21 and 22** where there is a risk of explosion due to mixture of air with dust, flammable fibres and volatile fuels, classified as explosion group **IIIC, IIIB and IIIA**;

View of the platform with a ramp



2. RAMPS ASSEMBLY



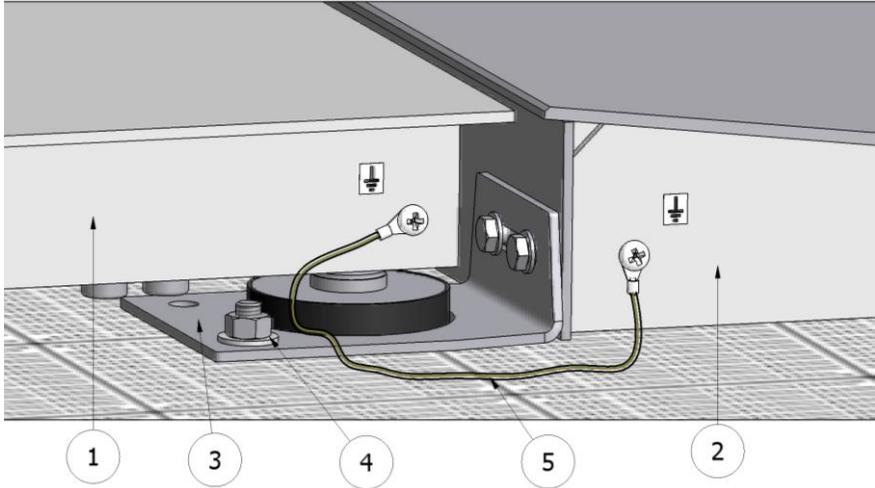
Carry out ramps assembly and connect the grounding when there is no risk of explosive atmosphere occurrence.

- The scale and the ramp must be unpacked in safe area.
- Prior transfer of the scale to its workplace, prepare cable for grounding of the Zener diode barrier housing. The grounding cable must be terminated with a ring enabling you to couple the cable to the Zener diode barrier by means of M5 nut. Use toothed clamping washer in order to keep the ring pressed tightly against the housing.
- The grounding cable must be yellow-green of 4 mm² diameter minimum.
- For 4 Load Cell Scales HX5.EX... with a ramp a proper place for installation should be prepared. It should be dry, horizontal and even.
- Permissible temperature range during scale operation is -10°C ÷ +40°C.
- The surface where the platform is to be placed has to transfer the load of the weighing platform together with the load of an object placed on the scales.
 - Set the ramp, the scale and the indicator in the point of use in the area endangered with explosion.
 - If necessary, adjust spacing of leg grips to scale legs.
 - Adjust the height of the platform (to the height of the ramp).
 - To secure the ramp against moving, the ramp should be attached to the ground using 2 expansion bolts through the holes in the leg grips.



In order to prevent collection of electrostatic charge on the ramps it is necessary to connect the ramp with a grounded platform by a connection cable. The connection point of the cables is marked with a \perp symbol.

Method of attaching the ramp to the ground and screwing the cable connecting the ramp to the scale platform.



- 1 – Scale platform
- 2 – Ramp
- 3 – Leg grip
- 4 – Expansion bolt
- 5 – Connection cable

3. WARRANTY CONDITIONS

- A. RADWAG feels obliged to repair or exchange all elements that appear to be faulty by production or by construction.
- B. Defining defects of unclear origin and means of their elimination can only be realized with assistance of manufacturer and user representatives.
- C. RADWAG does not bear any responsibility for damage or losses resulting from misuse, or unauthorized use or servicing.
- D. The warranty does not cover:
 - mechanical damage caused by product exploitation other than intended, damage of thermal and chemical origin, damage caused by lightning, overvoltage in the power network or other random event,
 - inappropriate cleaning habits.
- E. Loss of warranty takes place if:
 - a repair is carried out outside RADWAG authorized service point,
 - service claims intrusion into construction by unauthorized people,
- F. Contact with the central authorized service: +48 (48) 386 60 00.

4. SECURITY REQUIREMENTS

Prior to the first use, carefully read this User Manual. Use the device only as intended.

Depending on the ramps model, the HX5.EX-* scales can be used in:

- zones 1 and 2 where there is a risk of explosion due to mixture of air with vapour, mist or gas, classified as explosion group IIC, IIB and IIA and as temperature class T1, T2, T3, T4.
- zones 21 and 22 where there is a risk of explosion due to mixture of air with dust, flammable fibres and volatile fuels, classified as explosion group IIIC, IIIB and IIIA.



Not all ramps models are intended for operation in dust atmospheres. Diagram with areas of operation is presented in the first section of this service manual.

Explosion safety of ramps is ensured by:

- Making ramps mechanical design in accordance with the requirements of PN-EN 80079-36:2016 Standard *Explosive atmospheres -- Part 36: Non-electrical equipment for explosive atmospheres – Basic method and requirements*.
- Not exposing the frame to static electricity. Functional grounding cables which level the potentials must always be connected to the marked terminals. Disconnecting the functional grounding cables is forbidden. Disconnecting potentials equalizing cable (e.g. when there is a need to place the device elsewhere) is allowed only if there is no risk of explosive atmosphere.
- **Adhering to this user manual guidelines.**

