Installation and Operating Instructions
Interroll Lift-Up Gate
RM 8830

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Translation of original instruction manual
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Introduction

Notes about working with the installation and operating instructions

The Lift-up gate RM 8830 is generally referred to as "module" in this document.

These installation and operating instructions contain important notes and information about the various operating phases of the module:

- Transport, assembly and startup
- Safe operation, required maintenance tasks, removal of any faults
- Spare parts, supplementary accessories

The installation and operating instructions describe the module at the time of its initial delivery after manufacturing.

In addition to this manual, special contractual agreements and technical documents apply to special versions of the module and its additional equipment.

- To ensure trouble-free and safe operation as well as the settlement of possible warranty claims, always read these installation and operating instructions first and observe all the information contained herein.
- Keep the installation and operating instructions close to the module.
- Pass the installation and operating instructions on to any subsequent operator or occupant. Interroll does not accept any liability for faults or defects due to non-observance of these installation and operating instructions.

If you have any questions after reading the installation and operating instructions, please contact the Interroll customer service. Contact persons close to you can be found on the Internet under: www.interroll.com/contacts.
Warning notices in this document

The warning notices refer to risks which may arise while using the module. They are available in four danger levels identified by the signal word:

<table>
<thead>
<tr>
<th>Signal word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>DANGER</td>
<td>Identifies a danger with high risk that can lead to death or serious injury if it is not avoided.</td>
</tr>
<tr>
<td>WARNING</td>
<td>Identifies a danger with medium risk that can lead to death or serious injury if it is not avoided.</td>
</tr>
<tr>
<td>CAUTION</td>
<td>Identifies a danger with low risk that can lead to minor or medium injury if it is not avoided.</td>
</tr>
<tr>
<td>NOTICE</td>
<td>Identifies a danger that can lead to property damages.</td>
</tr>
</tbody>
</table>

Symbols

This symbol marks useful and important information.

Requirement:
- ☑ This symbol represents a prerequisite to be met prior to assembly and maintenance work.
-  This symbol marks the steps to be carried out.
Safety

State of the art
The module has been built to comply with the state of the art. Nevertheless, users may encounter hazards during its use.

Disregarding the notices in this manual may lead to serious injury.
- Carefully read the manual and follow its content.

Intended use
The module is intended only for industrial purposes and use in industrial environments and suitable exclusively as passage to be opened manually in a conveyor section.

The module is an incomplete machine and must be integrated into a complete system prior to operation.

Field of use
The module is dimensioned only for a certain field of use and may not be operated outside of these specific limits. For additional information, see the chapter "Technical data".

Any other use is considered inappropriate. Deviating operating conditions require additional clarifications, a special release of the module and new contractual agreements.

Changes to the module
Any modifications that affect the safety are not permitted.

Personnel qualification
Unqualified personnel cannot recognize risks and, as a result, is subject to greater dangers.

- Authorize only qualified personnel with the activities described in these installation and operating instructions.
- The operating company must ensure that the personnel follows locally applicable regulations and rules during their work with regard to safety and dangers.

The following target groups are addressed in these installation and operating instructions:

Operators
Operators have been instructed in the operation and cleaning of the module and follow the safety guidelines.

Service personnel
The service personnel features a technical training and performs the maintenance and repair tasks.

Electricians
Persons working on electrical installations must have the pertinent technical training.
Safety

Dangers

The following list informs you about the various types of danger or damage that may occur while working with the module.

Safety devices
- Perform any maintenance and repair work on the module only in de-energized state and ensure that it cannot be started accidentally.
- In the passage area of persons or if persons can reach between transported materials, additional protective measures may apply.
- Do not remove protective covers or housing.
- Regularly check the safety devices.

Electricity
- Reach into the module only if the module is de-energized.

Rotating parts
- Never wear loose clothing.
- Never wear jewelry, such as necklaces or bracelets.
- If you have long hair, always wear a hair net.

Parts lying around or falling off
- Remove equipment or material which is not required from the workspace.
- Wear safety shoes.
- Specify and monitor careful placement of the goods on the conveyor.

Risk of injury due to faults during operation
- Regularly check the module for visible damage.
- Immediately shut down the module and ensure that it cannot be started accidentally in case of:
  - fire vapors, unusual, noise, blocked or defective conveyor belt, defective supports, side guides or accessory devices, unauthorized removal of safety covers and with a defective suspension.
- Immediately determine the cause of the fault by qualified personnel.
- Immediately remove any escaping gear oil.
- Do not step on the module during operation.

Maintenance intervals
- Regularly perform maintenance and inspection work.
- Use only OEM spare parts.

Interfaces to other devices

New hazardous positions may occur while integrating the module into a complete system. These positions are not part of this manual and have to be analyzed during the assembly and startup of the complete system.
- When combining the module with other modules or machinery, check for new hazards before startup. In particular, observe the infeed point at the deflection shaft.
- Additional constructive measures may be required.
**Operating modes**

**Normal mode**

The module is installed at the customer in a complete system and operated as part of the system.

**Special mode**

Special operation refers to all operating modes which are required to guarantee and maintain regular operation.

<table>
<thead>
<tr>
<th>Special operating mode</th>
<th>Explanation</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport/Storage</td>
<td>Loading and unloading, transport and storage</td>
<td>-</td>
</tr>
<tr>
<td>Assembly/Initial start-up</td>
<td>Installation at the end customer and performing the test run</td>
<td>-</td>
</tr>
<tr>
<td>Cleaning</td>
<td>External cleaning without removing protective devices</td>
<td>When de-energized</td>
</tr>
<tr>
<td>Maintenance/Repairs</td>
<td>Maintenance and inspection tasks</td>
<td>When de-energized</td>
</tr>
<tr>
<td>Troubleshooting</td>
<td>Troubleshooting in the event of a fault</td>
<td>-</td>
</tr>
<tr>
<td>Fault elimination</td>
<td>Eliminating the fault</td>
<td>When de-energized</td>
</tr>
<tr>
<td>Shutdown</td>
<td>Removing from the complete system</td>
<td>When de-energized</td>
</tr>
<tr>
<td>Disposal</td>
<td>Removing from the complete system and disassembly</td>
<td>When de-energized</td>
</tr>
</tbody>
</table>
Product identification

Components

RM 8830
1 Plastic guide
2 Reflector
3 Photo cell
4 Counterweight crossbar
5 Roller conveyor
6 Gripper plates
7 Lever system
8 Base

Property
The lift-up gate swivels upward to provide a walkway, or access from one side of the conveyor to the other. This allows access to the rear of the conveyor, and the ability to plan quicker escape routes, in case of an emergency. The pivoting movement is operated by an innovative rotary mechanism.
Interroll Lift-Up Gate RM 8830

Product identification

Technical data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. load capacity</td>
<td>100 kg (incl. fitted module)</td>
</tr>
<tr>
<td>Overall height</td>
<td>645 mm (to T.O.R.)</td>
</tr>
<tr>
<td>Ambient temperature</td>
<td>-5 to +40 °C</td>
</tr>
<tr>
<td>Incline/decline</td>
<td>Not suitable</td>
</tr>
<tr>
<td>Between frames</td>
<td>300 to 840 mm</td>
</tr>
<tr>
<td>Module length of conveyor module</td>
<td>1000 to 1440 mm</td>
</tr>
<tr>
<td>Channel width</td>
<td>Module length to 220 mm</td>
</tr>
<tr>
<td>Noise level</td>
<td>Leq ≤ 70 dB(A)</td>
</tr>
</tbody>
</table>

Scope of supply

The lift-up gate is delivered completely assembled. The scope of supply includes:
- Rack including base with plastic guides, lever system, counterweights
- Photo cell and reflector
- Handles

The mounted conveyor module has to be ordered separately.
The information on the nameplate is used to identify the conveyor. The type designation is required to use the conveyor according to its intended use.

The nameplate is located close to the right stand in transport direction.
**Transport and storage**

**Transport**

⚠️ WARNING

Risk of injury during transport

- Fix the module securely and slip-proof for the transport.
- Ensure that the lifting device (crane, fork lift, etc.) is rated for the weight of the module.
- Ensure that no persons are located under the suspended load while lifting and moving the module.

Additional information about the transport are located on an information sheet that accompanies the motor.

- Data about weight and requirements for loading capacity and lifting tackle are located on the information sheet.
- Remove any persons from the danger zone.
- Wear safety shoes.
- Check the correct fastening for the transport.

The load lifting points are marked on the module.

If the module is mounted to a conveyor module, the load lifting points are marked on the conveyor module.

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**Identification of load lifting points**

![Lifting point](image1)

---

**After the delivery**

- Inspect module for transport damages.
- Immediately notify the carrier and manufacturer in case of damages to avoid losing any claims for compensation.
Storage

⚠️ WARNING

Risk of injury due to improper storage

- Do not stack modules. Do not place any other objects on the module.
- Check module for stability.

- If the module is not immediately placed in operation, store it at a location protected against humidity and dust.
Installation

⚠️ WARNING

Risk of injury due to improper assembly
- Mechanical assembly tasks should be performed only by service personnel. Observe the safety information.
- Electrical assembly tasks should be performed only by authorized electricians. Observe the safety information.
- Carefully install all terminals and connections, such as cables, hoses and pipework, and check for correct fit.

The module is delivered to the location site as a pre-assembled unit and only has to be combined with a roller conveyor and integrated into a system on site. The following steps are required for the installation and integration in a complete system:
- Set up the module, See "Setting up the module", page 17
- Set up center of gravity position and friction force, See "Setting up center of gravity position and friction force", page 18
- Install the photo cell, See "Installing the photo cell (optional)", page 22 (optional)

The conveyor module is typically already installed on the lift-up gate. If the conveyor module is not yet installed, the respective steps must be performed:
- Install the conveyor module on the lift-up gate, See "Installing the conveyor module on the module", page 23
- Install the handles on the conveyor module, See "Installing the handles", page 25

In principle, photo cell and reflector are already pre-assembled. If one of the following components is not installed, the respective steps must be performed:
- Install the universal support, See "Installing the universal support", page 26
- Install photo cell and reflector, See "Installing the photo cell and reflector", page 27

To be observed during installation

Torque
When tightening screws and nuts, always observe the standard tightening torque, unless specifically indicated otherwise. Standard screw lockers should be replaced as needed.

Grounding
During the installation of the module, its grounding must be observed. Among other things, the profile connectors are used for this purpose. If no profile connector is used for connecting the modules, alternate measures must be taken.

Orientation
- Align the module at the height-adjustable feet of the support. The decisive item for aligning the modules is the roller top edge (for roller conveyors) or the belt top edge (for belt conveyors).
- Secure the adjusted height. Use suitable tools for the alignment (spirit level or rotation laser).
- During the alignment of the module, ensure that no moving parts are touching.
Installation

Anchoring

- Anchor or fasten the module torsion-free, e.g. to the floor or adjacent components.

Integration into complete system

- When integrating the module into the complete system, consider possible danger spots, particularly infeed locations and interfaces.
Setting up the module

⚠️ CAUTION
Risk of injury when lifting heavy loads

- During the installation and replacement of conveyor modules or heavy spare parts, work in pairs or use a suitable carriage.

⚠️ CAUTION
Risk of crushing from rotating parts

- Before any assembly and maintenance work, the respective devices must be decommissioned and disconnected from the voltage supply.
- Secure the respective devices against accidental activation.
- When integrating the module into a complete system, consider possible danger spots, particularly infeed locations and interfaces.

- Align the conveyor module so that the side frames of the conveyor module are aligned with the side frames of the adjacent conveyor modules. During alignment, ensure that no moving parts are touching.
- Fasten the module torsion-free, e.g. anchored to the floor. Use a spirit level or leveling device for this purpose.
Setting up center of gravity position and friction force

The force required for swiveling the conveyor module depends on the following settings:

- Center of gravity position
- Friction force between the guide elements

The center of gravity position is set in the first step, See "Setting the correct center of gravity position", page 19. In the second step, if required, the friction force setting is changed, See "Setting the friction force", page 20.
The lift-up gate with the installed conveyor module has the correct center of gravity position if the force for opening and the force for closing the conveyor module are almost equal in size. To set the center of gravity position, the main weight (3) is installed at the installed conveyor. If necessary, additional counterweights (2) are installed at the tensioning plates of the lift-up gate.

- The main weight is installed on the side frame of the conveyor module from below using 4 countersunk screws (1) and nuts (4).
- If necessary, install additional counterweights (2) with 2 screws on the tensioning plates.
Setting the friction force

Plastic guide and guide pin

1 Plastic guide
2 Disk at guide pin

The friction force between the guide elements is determined by the compressive stress between the disk (2) at the guide pins and the plastic guide (1).
The friction between the guide elements depends on the distance C. The greater the distance C, the greater the friction between the guide elements. With increasing friction, the force required for tipping the conveyor module also increases. If the distance X is being reduced on the tensioning screw, the right tensioning plate (2) and the left tensioning plate (3) drive apart and the distance C increases.

- Loosen the connecting screws and nuts (1) that connect the two tensioning plates (2, 3) with each other.
- To increase the friction force between the guide elements, loosen the locknut (5) and tighten the adjusting nut (4) until the desired friction force has been reached.
- To decrease the friction force between the guide elements, loosen the adjusting nut until the desired friction force has been reached.
- Tighten the locknut.
- Tighten the connecting screws to secure the new setting.
Installing the photo cell (optional)

If the lift-up gate is open, this is indicated by a photo cell signal. When a 24 V roller conveyor is used, the signal automatically switches off the conveyor segment in front of the lift-up gate. For this purpose, the photo cell is connected to the control system of the adjacent conveyor module.

The photo cell cannot be installed until the lift-up gate with the conveyor module has been completely installed.

Requirement:
- The module is out of operation.
- Connect the photo cell to the control system of the adjacent module with a cable.
- Check whether both LEDs are lit.
- If the yellow LED flashes, position reflector and photo cell to each other.

<table>
<thead>
<tr>
<th>LED green</th>
<th>LED yellow</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>On</td>
<td>Off</td>
<td>Photo cell is operational.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No signal from reflector.</td>
</tr>
<tr>
<td>On</td>
<td>On</td>
<td>Photo cell is correctly adjusted.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Light beam is well reflected.</td>
</tr>
<tr>
<td>On</td>
<td>Flashing</td>
<td>Photo cell is operational.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Weak signal.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reflector is dirty, damaged or not correctly adjusted.</td>
</tr>
</tbody>
</table>
Installing the conveyor module on the module

⚠️ CAUTION

Risk of injury when lifting heavy loads

- During the installation and replacement of conveyor modules or heavy spare parts, work in pairs or use a suitable carriage.

- Remove the side covers of the conveyor module.
- Place the conveyor module on the lift-up gate. In this process, ensure that the edge of the conveyor module protrudes 5 mm beyond the edge of the tensioning plates (1).
Fasten the conveyor module with 3 hexagon head screws (2) and nuts (1) on each side of the lift-up gate (3).

Reattach the side covers of the conveyor module.
Installing the handles

Two handles are attached to the conveyor module. They are used to lift up the lift-up gate and as support surfaces for the following conveyor module.

Handle plates with handles on conveyor module

1  Countersunk screw
2  Handle plate
3  Serrated flange bolt
4  Side cover

- Remove the side cover.
- Fasten the handle plate to the side frames of the conveyor module using 2 countersunk screws at the top and 2 serrated flange bolts on the bottom as well as 4 nuts. In doing so, ensure that the handle plate protrudes approx. 54 mm beyond the conveyor module.
- Shorten the side cover accordingly and reattach it.
Installing the universal support

The universal support (2) is installed laterally on the side frame of the conveyor module.

- Remove end cap (4) from the side frame.
- Fasten the universal support in the upper row of holes of the side frame using 2 serrated flange bolts (3) and nuts (1).
- Push the end cap into the side frame.
Installing the photo cell and reflector

The photo cell is delivered as a finished unit. It is installed on the conveyor module using a mounting plate and a universal support.

- Install the universal support on the conveyor module. See "Installing the universal support", page 26.
- Separate clamp (4) as well as photo cell holder (2) from the sprue clip.
- Professionally dispose of the sprue.
- Place the mounting plate (3) on the photo cell.
- Place the clamp on the fastening cams and audibly engage them.
- Push the mounting plate with photo cell onto the universal support and screw it in place.
- Affix the reflective tape (1) onto the plastic guide opposite the photo cell.
- Align the photo cell to the reflective tape.
Integrating the module in the overall system

When integrating the gate flap in a complete system, the following distances to the adjacent conveyors must be observed:
- 90 mm before the gate flap (on the side with the lever system)
- 10 mm after the gate flap (on the side of the gripper plates)

Requirement:
- Gate flap and adjacent roller conveyor are aligned with each other.
- Ensure that the gap between gate flap and adjacent roller conveyor measures 90 mm at the front or 10 mm at the rear.
- Install an additional roller between gate flap and adjacent roller conveyor and close the gap. Roller is fastened at the adjacent roller conveyor with both mounting brackets.
Initial startup and operation

Initial startup

⚠️ WARNING
Risk of injuries due to incorrect handling
- Check electrical connections and protective devices.
- Remove the materials from the module.
- Remove unauthorized persons from the danger zone.
- Wear safety shoes and work clothing.

⚠️ CAUTION
Risk of crushing
- Remove rubber buffers in the plastic guide before the initial startup.

The module has been checked at the factory.

The rubber buffer is used solely to secure the module during transport and installation. It must be removed together with the holder before the initial startup.
Rubber buffer with holder

1 Rubber buffer  2 Holder

- Create a horizontal support for the lift-up gate with the installed conveyor module with the help of the handle plates and the adjacent conveyor module.
- Ensure that the lift-up gate is firmly anchored to the floor.
- Loosen hexagon head screws of the holder (2).
- Fold up the conveyor module.
- Remove rubber buffer (1) on both sides together with the holder.
Operation

Before every operation start
- Check the module for visible damage.
- Ensure that all safety devices operate flawlessly.
- Ensure that only authorized personnel is in the operating area of the module.
- Remove equipment or material which is not required from the operating area.
- Guide and monitor correct placement of the goods on the conveyor.

During operation

⚠️ WARNING

Danger from rotating parts
Crushing and serious injuries from parts of the body and clothing being pulled into the module!
- Do not remove the protective covers.
- Wear close-fitting clothing, avoid jewelry and bands/ribbons.
- If you have long hair, always wear a hair net.

- If materials are jammed between side guides, switch off the module and ensure that it cannot be started accidentally, then remove the fault.

Procedure in case of accident or fault
- Stop the module and ensure that it cannot be started accidentally.
- In case of an accident: Render first aid and make an emergency call if necessary.
- Inform qualified personnel.
- Have the fault removed by qualified personnel.
- Restart the module only after this has been approved by qualified personnel.
Cleaning

⚠️ WARNING

Risk of injuries due to incorrect handling

- Only perform cleaning work on the module after you have switched off the power. Switch off the voltage supply and ensure that it cannot be started accidentally.
- Do not remove protective devices.
- Wear safety shoes and close-fitting work clothing.

- Clean belts only dry.
- For the remaining parts of the module, use only suitable cleaning agents (water-soluble, free of phosphate, silicone and potassium, non-acidic). Observe the manufacturer’s instructions.
Maintenance and repair

Observe the following for maintenance and repair

⚠️ WARNING

Risk of crushing and injuries

- Ensure that the personnel involved in maintenance and repair have secure footing and sufficient room to move.
- Mechanical maintenance and repair work may only be performed by service personnel. Observe the safety information.
- Electrical maintenance and repair work should be performed only by authorized electricians. Observe the safety information.
- Observe the weight of the module (see nameplate); if necessary work in pairs.
- Use suitable loading and lifting equipment. Secure the module against falling or tipping.

When tightening screws and nuts, always observe the standard tightening torque, unless specifically indicated otherwise. Standard screw lockers should be replaced as needed.

- Always have work on electrical equipment carried out by authorized electricians.
- Set up warning signs that indicate maintenance and repair work.
- Block off the area around the module.
- Inform persons who have to enter the blocked-off area about the risks.
Replacing the plastic guide

1 Plastic guide 4 Disk springs
2 Guide pins 5 Nut
3 Disk at guide pin 6 Hexagon socket screw

⚠️ CAUTION

Risk of injury when lifting heavy loads

- During the installation and replacement of conveyor modules or heavy spare parts, work in pairs or use a suitable carriage.

Requirement:
- The module is out of operation.

The disk springs may be pressurized and jump out of the guide after removing the pin.

- To relax the disk springs, reduce the friction force. See "Setting the friction force", page 20.
- On the handle plates, remove the top countersunk screws and the bottom serrated flange bolts.
- Remove the handle plates.
Maintenance and repair

- Fold down the conveyor module until both guide pins (2) with the disk springs (4) and the washer (3) slide out of the plastic guides (1) at the front.
- Position the conveyor module so that the plastic guide can be uninstalled without any problems; support as necessary.
- Loosen all screws (6) that fasten the plastic guide to the housing. To do so, hold the nuts (5) on the inside of the base.
- Remove the defective plastic guide.
- Install a new plastic guide with screws and nuts.
- Fold up the conveyor and reinsert the pins together with disk springs and washer into the plastic guides.
- Install the handle plates, See " Installing the handles", page 25.
- Check ease of movement of pins in the groove. If necessary, loosen the screws again and correct the gap width.
Replacing the photo cell

The photo cell is replaced together with the photo cell holder.

```
Replacing the photo cell

1 Reflective tape  
2 Photo cell holder with photo cell  
3 Mounting plate  
4 Clamp
```

Requirement:
- The module is out of operation.
- Disconnect the cable of the photo cell from the control system of the adjacent module.
- Pull clamp (4) off of the fastening cams of the photo cell (2).
- Remove old photo cell from the mounting plate (3).
- Insert the new photo cell.
- Snap the strap fully into the mounting cams of the photo cell from below.
- Connect the photo cell to the control system of the adjacent module with a cable.
- Check whether both LEDs are lit.
- If the yellow LED flashes, position reflector and photo cell to each other.

### LED green  LED yellow  Meaning

<table>
<thead>
<tr>
<th>On</th>
<th>Off</th>
<th>Photo cell is operational.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>No signal from reflector.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>On</th>
<th>On</th>
<th>Photo cell is correctly adjusted.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Light beam is well reflected.</td>
</tr>
<tr>
<td>LED green</td>
<td>LED yellow</td>
<td>Meaning</td>
</tr>
<tr>
<td>----------</td>
<td>-----------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>On</td>
<td>Flashing</td>
<td>Photo cell is operational.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Weak signal.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reflector is dirty, damaged or not correctly adjusted.</td>
</tr>
</tbody>
</table>
Maintenance intervals

If maintenance is not performed according to schedule, it may lead to damages and failures. If maintenance intervals are not followed, the warranty will be void.

All bearings of the module feature a life-time lubrication and are maintenance-free within the operating parameters.

Maintenance and inspection list

<table>
<thead>
<tr>
<th>Component</th>
<th>Interval</th>
<th>Tasks/check</th>
<th>Work to be performed</th>
<th>Performed by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete module</td>
<td>Weekly</td>
<td>General visual and acoustic remote check</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete module</td>
<td>Annually</td>
<td>Check screw connections</td>
<td>Tighten to applicable standard as required</td>
<td></td>
</tr>
<tr>
<td>Complete module</td>
<td>Every 6 months</td>
<td>Check for cleanliness</td>
<td>Clean as required</td>
<td></td>
</tr>
<tr>
<td>Complete module</td>
<td>Every 6 months</td>
<td>Lightly spray guide rails with silicone spray</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Troubleshooting

### In case of a fault

**⚠️ DANGER**

**Danger - electrocution**
- Only perform maintenance and repair work after you have switched off the power.
- Faults on electrical equipment may be removed only by a trained electrician!

**Requirement:**
- The danger spots on the module are covered by protective plates and other protective devices.
- Immediately de-energize the complete conveyor system and ensure that it cannot be started accidentally.
- Remove material and blocking objects.
- Before switching it on again, ensure that no persons are at risk.
- Professionally dispose of any gear oil that has leaked out. Have the motor replaced by qualified personnel if necessary.

### Troubleshooting

<table>
<thead>
<tr>
<th>Fault</th>
<th>Cause</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lift-up gate is not balanced across the entire swivel movement.</td>
<td>Center of gravity position of conveyor module is not in the correct position.</td>
<td>Correct center of gravity position with counterweights.</td>
</tr>
<tr>
<td>Movement of lift-up gate is sluggish.</td>
<td>Lubrication is insufficient.</td>
<td>Spray guide rails with silicone spray.</td>
</tr>
<tr>
<td></td>
<td>Compression elements are tensioned too much.</td>
<td>Slightly relax the compression elements.</td>
</tr>
<tr>
<td>Movement of lift-up gate is too light.</td>
<td>Compression elements are not tensioned enough.</td>
<td>Slightly retension the compression elements.</td>
</tr>
</tbody>
</table>
Spare and wear parts

All spare and wear parts are available from Interroll. Maintenance and repair work may be performed only by qualified personnel. Interroll offers training sessions about required maintenance and repair tasks upon request.

Ordering information

Ordering spare and wear parts requires the exact identification of the module, Nameplate.

The following information is required for an order:

• Machine number
• Type
• Item number of spare parts list
• Designation
• Comment

For additional information about the spare parts portfolio, please contact your supplier.
### Spare part drawing RM 8830

![Spare part drawing RM 8830](image)

### RM 8830 spare parts list

S = spare part, W = wear part, T = tool

<table>
<thead>
<tr>
<th>Item no.</th>
<th>Designation</th>
<th>Comment</th>
<th>S/W/T</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Disk spring</td>
<td></td>
<td>S</td>
</tr>
<tr>
<td>2</td>
<td>Plastic guide</td>
<td></td>
<td>S</td>
</tr>
<tr>
<td>3</td>
<td>Photo cell with holder</td>
<td></td>
<td>S</td>
</tr>
<tr>
<td>4</td>
<td>Reflective tape</td>
<td></td>
<td>S</td>
</tr>
</tbody>
</table>
Decommissioning and disposal

- When disposing the motor oil, observe the disposal documents of the motor manufacturer.
- The packaging must be recycled to provide environmental relief.

Environmental protection regulations

For all work on and with the module, the legal regulations concerning waste avoidance and proper disposal and recycling must be followed.

**NOTICE**

Substances with a water hazard class, such as greases and oils, hydraulic oils, coolants or cleaning agents with solvents may not be allowed to come into contact with the ground or reach the sewer system!

- Store, transport, catch and dispose these substances in suitable containers!
- Observe the notices on the supply containers.
- Observe any additional national regulations.
Installation declaration

In accordance with the EC Machinery Directive 2006/42/EC, Appendix II 1 B.

The manufacturer:
Interroll Automation GmbH
Dietmar-Hopp-Straße 3
D-74889 Sinsheim, Germany

herewith declares that the conveyor module described below is an incomplete machine in accordance with the EU Machinery Directive:

• Lift-Up Gate RM 8830

Important Note! The incomplete machine may only be put into operation if it has been determined that the overall machine/system, into which the incomplete machine is to be installed, meets the requirements of this directive.

The following safety requirements as stated in Appendix I have been applied:

• 1.1.2, 1.1.3, 1.1.5, 1.1.6, 1.3.1, 1.3.2, 1.3.3, 1.3.4, 1.3.7, 1.3.8, 1.4.1, 1.5.4, 1.5.8, 1.5.9, 1.6.1, 1.6.4, 1.7.4

The special technical documents mentioned in Appendix VII B have been prepared and will be sent to the responsible authority if necessary. The transmission is done electronically.

Responsible for EC documentation: Interroll Automation GmbH, Dietmar-Hopp-Straße 3, D-74889 Sinsheim, Germany

Applicable EC Directives:
• Machinery Directive 2006/42/EC
• EMC Directive 2014/30/EU

Applicable harmonized standards:
• EN ISO 12100:2011-03 "Safety of machinery - Basic concepts - risk assessment and reduction"
• EN ISO 13857:2008-06 "Safety of machinery - Safety distances to prevent hazard zones being reached by upper and lower limbs"
• EN 349:2008-09 "Safety of machinery - Minimum gaps to avoid crushing of parts of the human body"
• EN 60204-1:2007-06 "Safety of machinery - Electrical equipment of machines - Part 1: General requirements"

Sinsheim, dated

Robert Lugauer
(Manager)