Anti-collision optical detector for travelling cranes

RXC 3 series

Red light

CE

Safety

- Optical and electronic components continuously self-tested
- Maximum operating distance: 30 m, recommended working distance: 20 m max.
- “Positive Safety” electrical operation
- Reliable detection distance by triangulation
- Integrated alignment assistance system
- Remote alert system for preventive maintenance

Vibration withstand capacity

- Screw-less terminal strip with stripping gauge
- Firmly secured components
- “Industrial” mounting system (M8 and 2xM6)

Housing designed for industrial environment

- Anti-mist / anti-ice optical system
- Glass lens
- Tightness rating IP65
- Operating temperature range: - 30° to + 65°C
- Anti-corrosion treated metal housing
- Protective visor (shocks / streaming water)
- Cable gland through rear or bottom
- High protection against electromagnetic disturbance (better than level 4 according CEI 1000-4-4)

Bi-voltage power supply

- 24/48 VAC
- 110/230 VAC

Outputs

- By two relays with change-over contacts NO/NC, potential-free
  - Crane stop output: contact closed in absence of reflector. Contact opens when reflector is detected or power cut-out occurs
  - Technical alarm output: normally closed. Contact opens if fault is detected in reception circuit.
- Characteristics of contacts
  - Response time: 15 ms
  - Breaking capacity: AC1 10A/250 VAC
    AC15 3A/250 VAC
    AC13 2A/24 VDC
  - Service life on standards contactors:
    230 VAC : 8 millions cycles
    24 VDC : 5 millions cycles

Display by multifunction indicator light

- Red 3-state indicator light (beam presence)
  - on: beam established
  - off: beam interrupted
  - flashing: beam established but signal margin is insufficient.
- Green (self-test)
  - on: system OK
  - off: fault, technical alarm output has tripped.

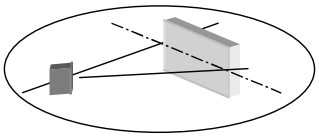
Recommended reflectors

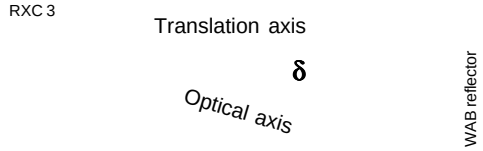
- Distance < 5 meters
  - WAB 600 (175x175 mm)
  - WAB 660 (600x235mm) for better stopping precision.
- Distance > 5 meters
  - WAB 660 (600x235 mm)

ASTEEL JAYSENSOR

INSTALLATION:

- The system works by triangulation as indicated opposite.
- The edges of the WAB reflector and the RXC detector must be aligned on the crane translation axis.



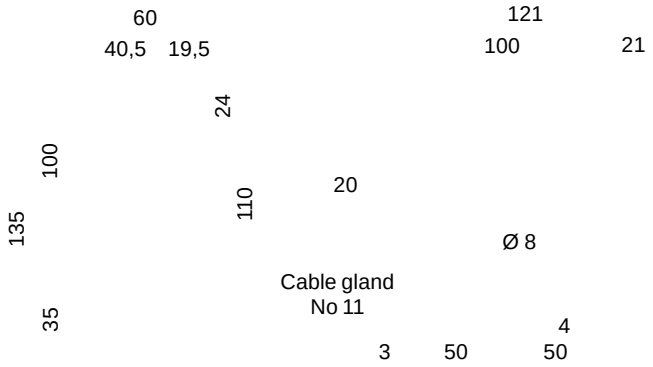


To adjust the detector:

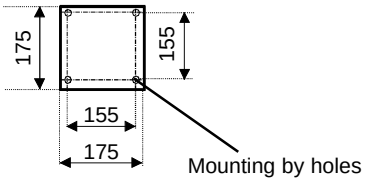
- Place the crane at the desired stopping distance.
- Adjust the angle δ so that the RXC is triggered when the beam hits the WAB.

Use the multifunction indicator lights and the red emission to adjust the detection geometry.

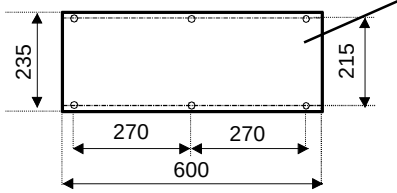
DIMENSIONS AND MOUNTING:

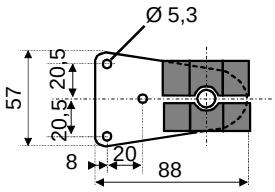


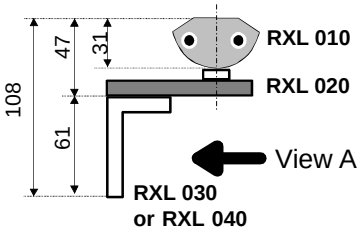
WAB 600



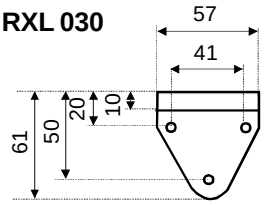
WAB 660



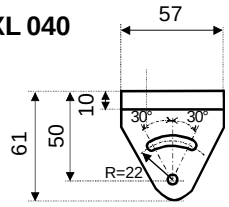




RXL 030

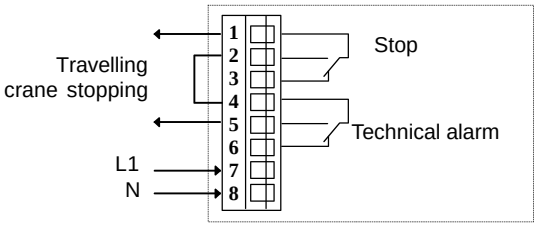


RXL 040



(View A)

CONNECTION:



MOUNTING ACCESSORIES:

On rod Ø14 to 18mm:	RXL010
On horizontal surface:	RXL040 or RXL010 + RXL020
On vertical surface:	Direct or RXL010 + RXL020 + RXL030

ORDERING DATA:

Detector:

• 24/48 VAC	**RXC 31A**
• 110/230 VAC	**RXC 31B**

Accessories: (ordered separately, according to installation)

• Mounting clamp	**RXL 010**
• Horizontal plate	**RXL 020**
• Return bracket	**RXL 030**
• Plain bracket	**RXL 040**

ASTEEL JAYSENSOR

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