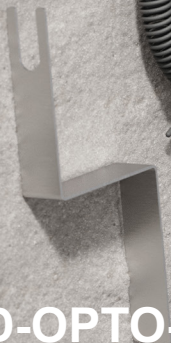


Installation Instruction User Guides



WD-OPTO-1 / WD-OPTO-2

Wired optical safety edge kit

Version 1.0

I. Description

1.1 Overview

The wired safety edge transmitter junction box features spiral cables for simplified integration with control systems and supports connectivity to optical edge sensors (OSE), wicket door switches, slack rope switches, and auxiliary devices.

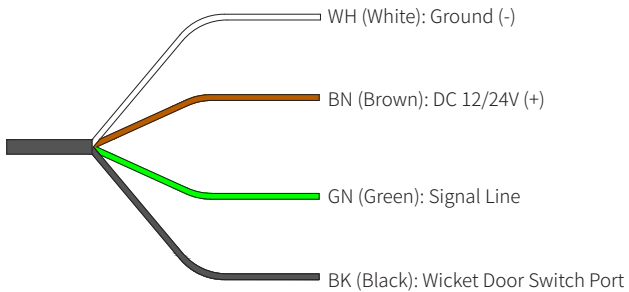
1.2 Advantages

Wired connection: Stable and reliable wired connection, avoiding wireless signal interference and battery replacement trouble, to ensure long-term stable work.

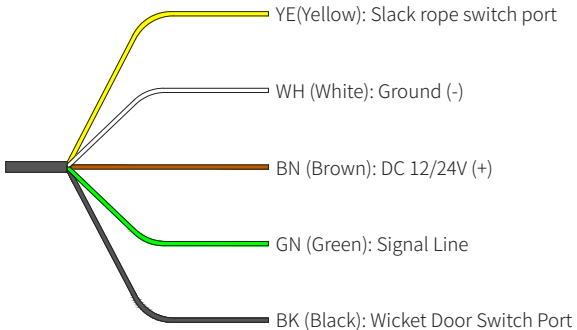
Various ports: When an abnormal situation is detected, the corresponding safety measures are automatically triggered to achieve real-time safety protection.

II. Spiral cables wiring instructions

Spiral Cables (4 cores) Wiring Instructions



Spiral Cables (5 cores) Wiring Instructions

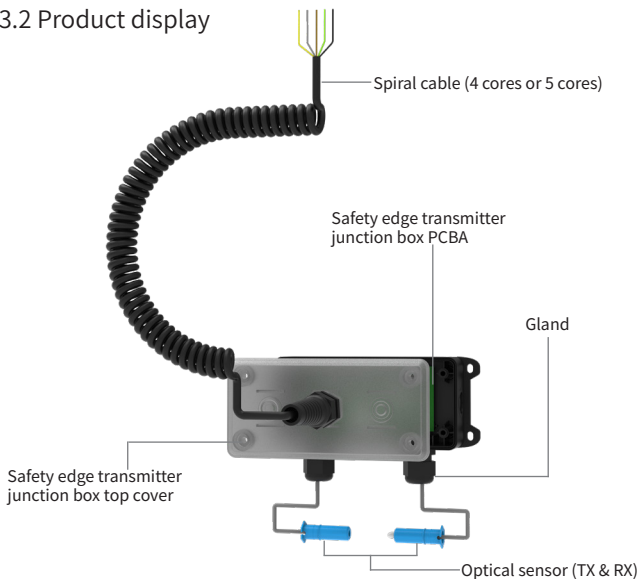


III. Wired safety edge transmitter junction box - single junction box

3.1 Technical data

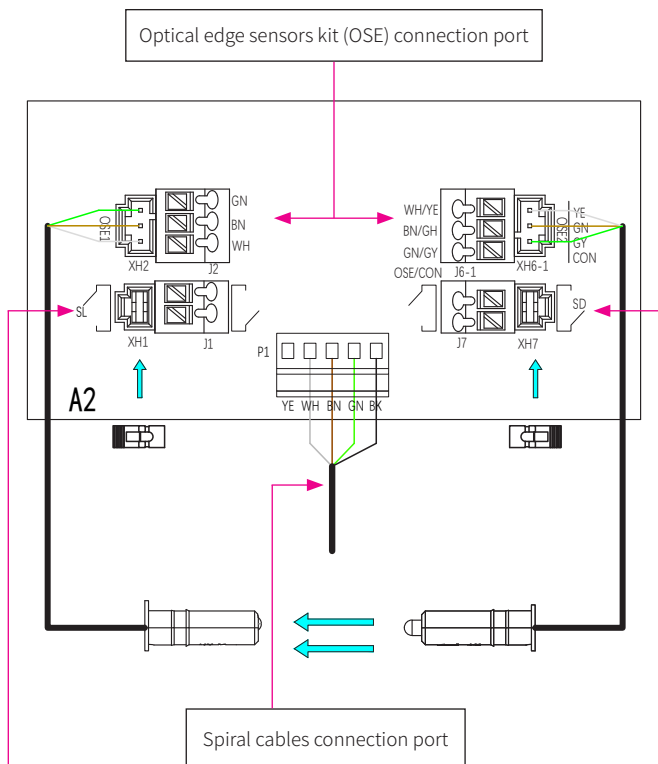
Power supply	DC 12-24V
Infrared signal range	0.5-10m
Dimensions	97*169mm
Cover material	PC(Top cover) / ABS(Bottom cover)
Transmitter optical sensor cable length	6m or 10m
Receiver optical sensor cable length	1m
Operating temperature range	-20°C to 60°C
IP grade	IP65

3.2 Product display



3.3 Wiring diagram

Single junction box + Spiral cables (4 cores)



Slack rope switch (SL) port (Default connection with dip switch port)

Note: Disconnect the DIP switch port after connecting the slack rope switch (SL)

Wicket door switch (SD) port (Default connection with dip switch port)

Note: Disconnect the DIP switch port after connecting the wicket door switch (SD) signal.

Default Configuration:

When connected to the 4cores spiral cable, the junction box is preset with the SD (Wicket Door) port active and the SL (Slack Rope Switch) port inactive.

Enabling the SL (Slack Rope Switch) Port:

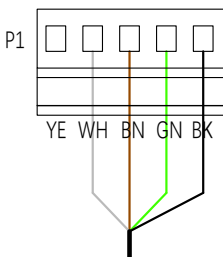
To activate the SL (Slack Rope Switch) port, switch the BK wire to the YE terminal.

Note: This action will automatically deactivate the SD (Wicket Door) port.

Note:

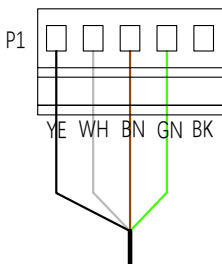
Only one port (SD or SL) can be active at any time. Ensure proper validation after reconfiguration.

Spiral cables connection state 1
(Default)



SD port is valid, SL port is invalid.

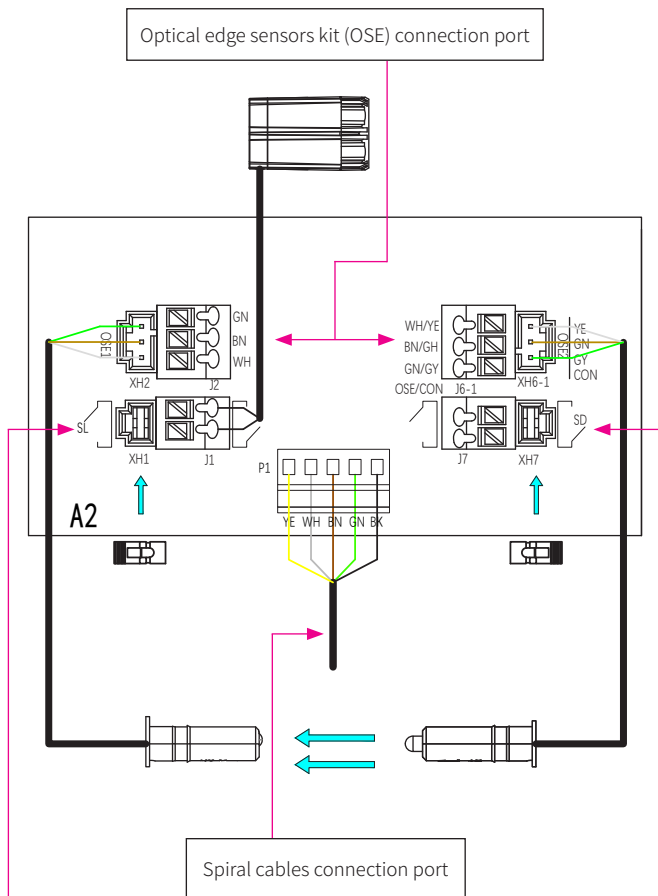
Spiral cables connection state 2



SD port is invalid, SL port is valid.

3.4 Wiring diagram

Single junction box + Spiral cables (5 cores)



Slack rope switch (SL) port (Default connection with dip switch port)

Note: Disconnect the DIP switch port after connecting the slack rope switch (SL).

Wicket door switch (SD) port (Default connection with dip switch port)

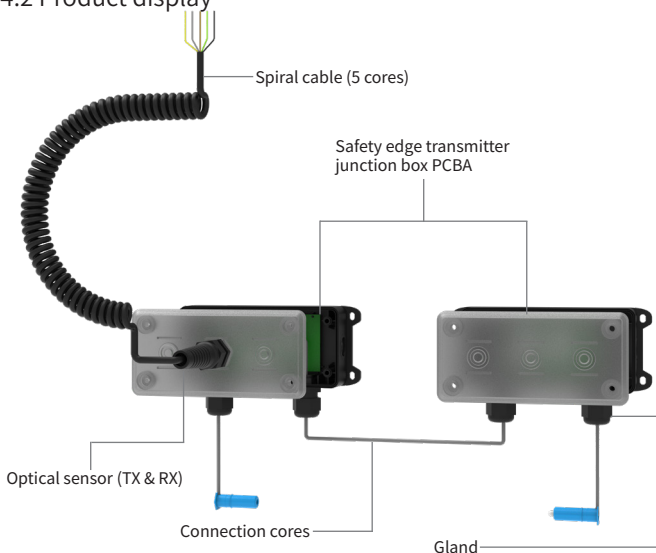
Note: Disconnect the DIP switch port after connecting the wicket door switch (SD) signal.

IV. Dual Junction Box for wired safety edge

4.1 Technical data

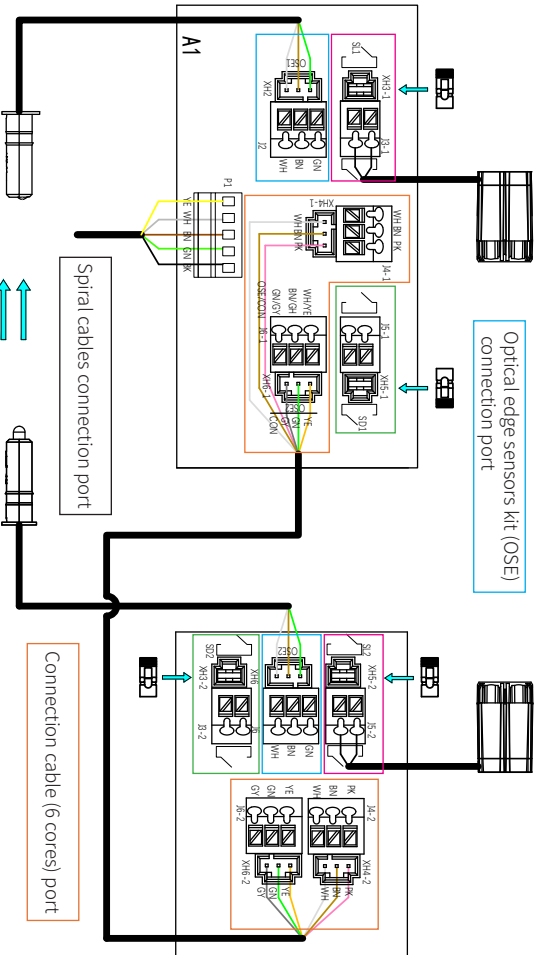
Power supply	DC 12-24V
Infrared signal range	0.5m~10m
Dimensions	97*169mm
Cover material	PC(Top cover) / ABS(Bottom cover)
Transmitter optical sensor cable length	0.5m or 1m
Connection cable length (6 cores)	6.5m
Operating temperature range	-20°C to 60°C
IP grade	IP65

4.2 Product display



4.3 Wiring diagram

Dual junction box + Spiral cables (5 cores)



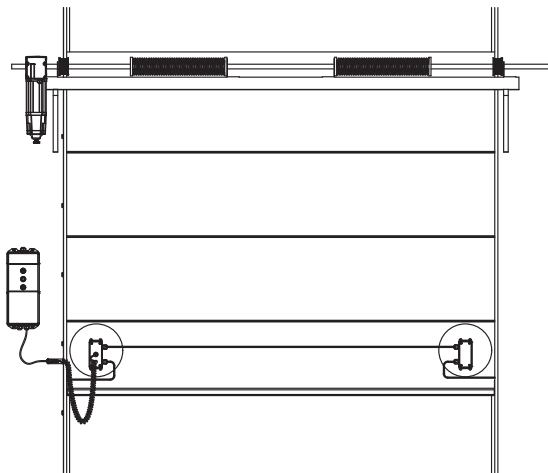
Slack rope switch (SL) port (Default connection with dip switch port)
Note: Disconnect the DIP switch port after connecting the slack rope switch(SL).

Wicket door switch (SD) port (Default connection with dip switch port)
Note: Disconnect the DIP switch port after connecting the wicket door switch (SD) signal.

V. Preparation of Installation Steps

5.1 Installation

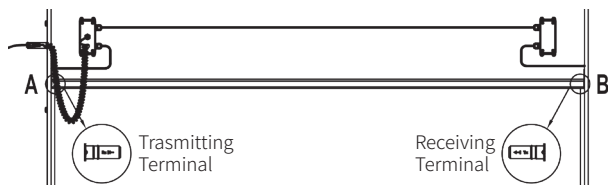
Step 1



Locate the door and install the wired safety edge transmitter junction box.

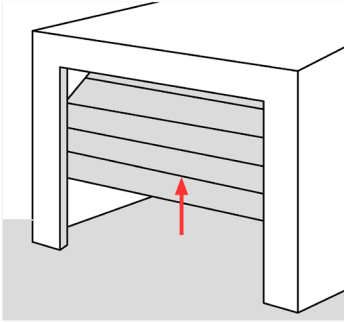
Note: For single junction boxes, install near the control box to simplify spiral cable routing.

Step 2



Install the optical edge sensors kit (OSE) transmitting terminal and receiving terminal to the A and B ends of the door rubber strip.

Step 3



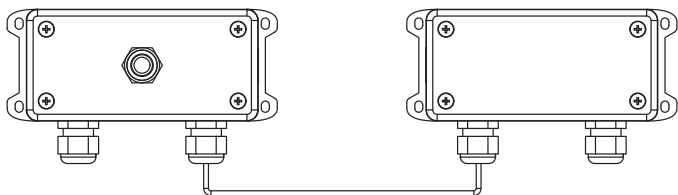
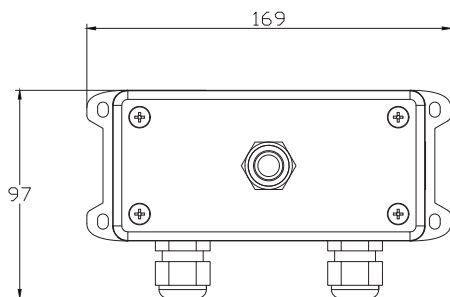
Verification: Ensure the motor is configured for safety edge mode. Manually trigger the safety edge during door closure and confirm the motor responds with an error code and automatic reversal.

Note: Certain motors require manual configuration of the safety edge mode, while others must be powered off and restarted to enable automatic recognition.

VI. Dimensions

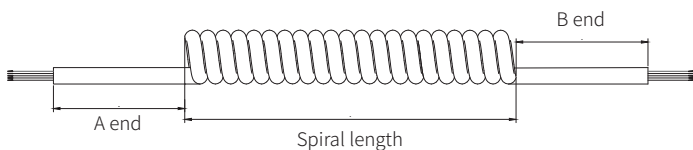
6.1 Safety edge transmitter junction box dimensions

Unit of Length: mm



6.2 Spiral cables dimensions

Unit of Length: mm



	Specification	Spiral length	Extended length	A end	B end
5 cores	5x 0.25/0.5mm ²	950mm	3500mm	300mm	1600mm
5 cores	5x 0.25/0.5mm ²	1200mm	5000mm	300mm	3000mm
4 cores	4x 0.25/0.5mm ²	900mm	3500mm	300mm	1600mm
4 cores	4x 0.25/0.5mm ²	1200mm	5000mm	300mm	3000mm

6.3 Optical edge sensors kit (OSE) dimensions

Unit of Length: mm

