

# Belt Breakage Detection Manual

When the belt breakage detection detects faults such as breakage or damage of the steel belt, the safety circuit will be disconnected, thereby stopping the operation of the drive motor and protecting the safety of personnel inside the elevator.

## I. Product Overview

The belt breakage detection device is designed for 30-width steel belt traction elevators. It is mainly composed of the main detection device at the A-end of the steel belt, the auxiliary detection device at the A-end of the steel belt, and the detection device at the B-end of the steel belt (see Figure 1). The functions corresponding to the six terminal posts on the main detection device at the A-end of the steel belt are shown in Table 1.

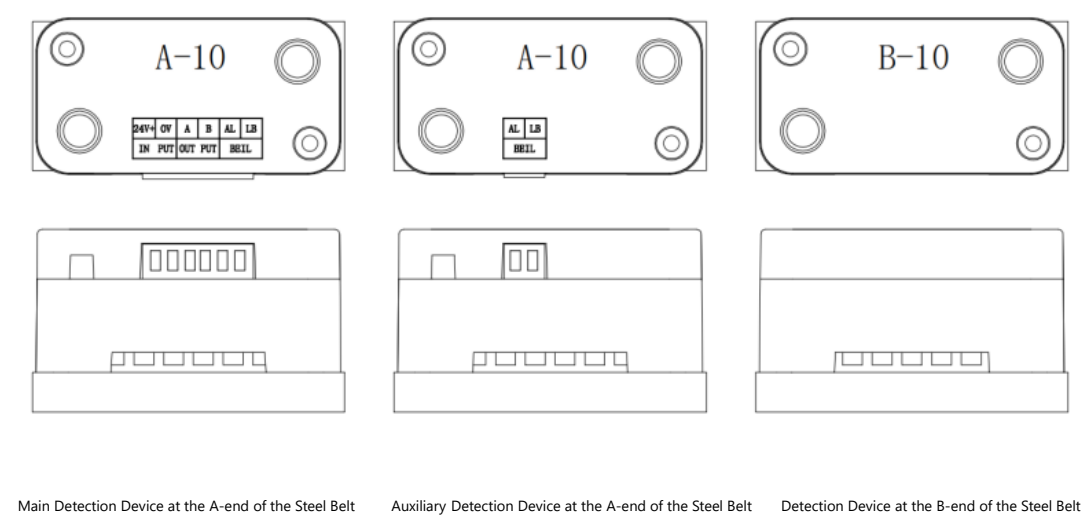
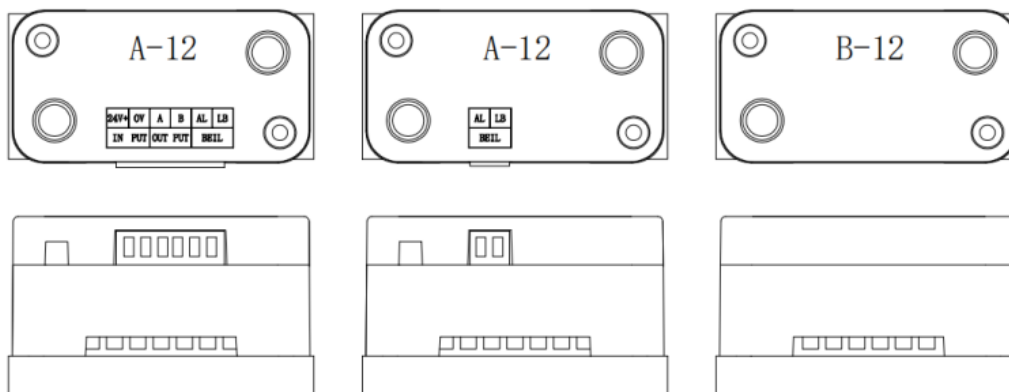
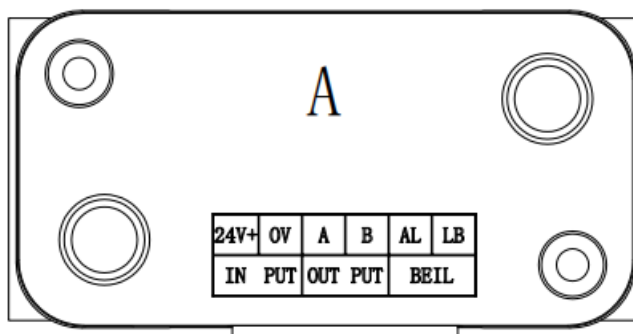


Figure 1 Belt breakage Detection -10 Device



Main Detection Device at the A-end of the Steel Belt    Auxiliary Detection Device at the A-end of the Steel Belt    Detection Device at the B-end of the Steel Belt

Figure 2 Belt Breakage Detection-12 Device



24V+	0V	A	B	AL	LB
IN	PUT	OUT	PUT	BEIL	

Table 1 Belt Breakage Detection Interface Description

## II. Operating Environment and Main Technical Specifications of the FLY-30 Belt Breakage Detection Device

Ambient Temperature: -40℃ ~ 40℃

Relative Humidity: ≤ 90% (at 25℃)

Surrounding Medium: Locations free of flammable, explosive, and corrosive media

Working System of the Belt Breakage Detection Device: 24-Hour  
Continuous Operation

Power Supply: 24VDC

### III. Working Principle

When the elevator is operating normally, the belt breakage detection device and the steel belt form a circuit. In the event of faults such as belt breakage or damage, the circuit is disconnected, and the relay outputs a circuit break signal.

### IV. Installation Diagram of Belt Breakage Detection Device

Install the main detection device at the A-end of the steel belt, the auxiliary detection device at the A-end of the steel belt, and the detection device at the B-end of the steel belt. After wiring according to Figure 2 or Figure 3 (and so on), check the wiring.

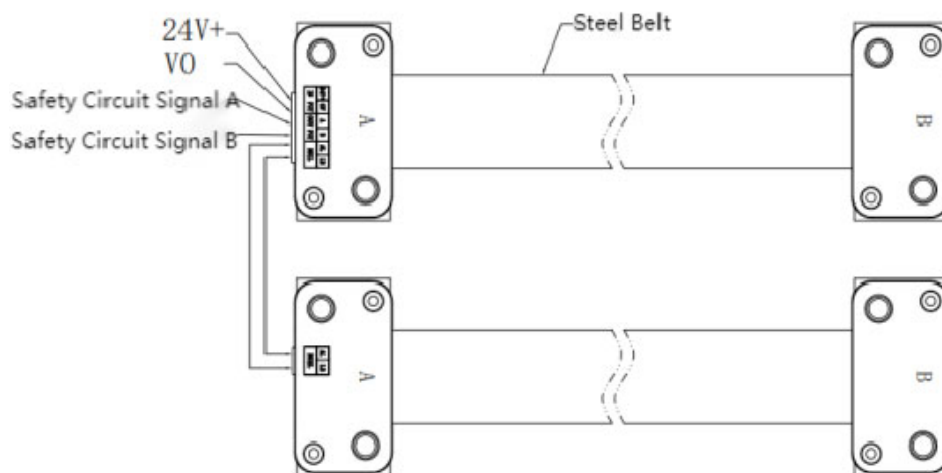


Figure 3 Installation Method for Two Steel Belts

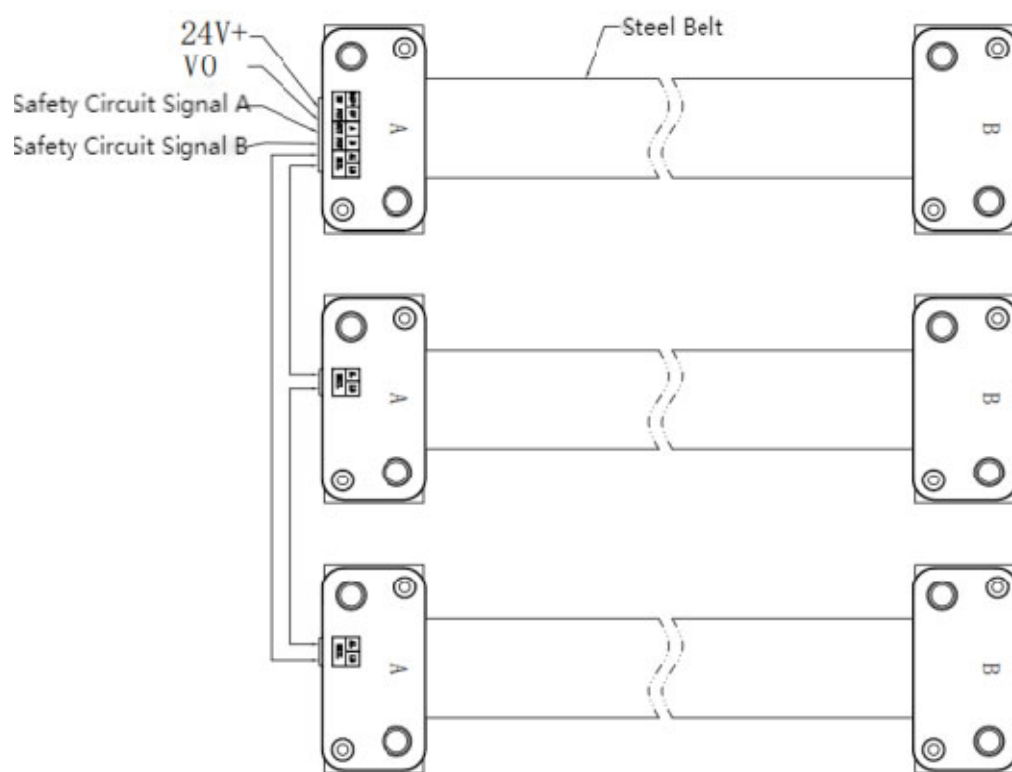


Figure 4 Installation Method for Three Steel Belts