386-4 Fireproof Rolling Door

Intelligent Control System

Operation Manual

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1. Functions

Manual Control

The controller allows for the manual operation of the rolling door motor under normal operating conditions.

Fire - Smoke & High - Temperature (HT) Signal Synchronization & Graded Detection

The controller offers three control procedures for fire - smoke and HT signal actuation:

Procedure A: Upon receiving a fire - smoke or HT signal, the door descends, pauses for a preset time, and then moves to the fully closed position.

Procedure B: Graded detection mode. The controller outputs audible and visual alarms, drives the door to descend and stop at the mid - position. If an HT signal is detected, the door continues to close completely; otherwise, it remains at the mid - position.

Procedure C (Emergency Mode): Upon receiving a fire - smoke or HT signal, the door moves directly to the fully closed position in one continuous movement.

Emergency Escape Operation

If the door is closing during a fire and personnel are trapped:

Press any controller button (Up / Stop / Down): the door rises to the mid - position and then closes directly.

When the door is fully closed, press any button: the door rises to the mid - position, pauses, and then resumes closing.

Signal Input Compatibility

The controller accepts fire - smoke signals, HT signals, fire command center signals, and high - level DC 12–24V signals.

2. Technical Parameters

Single downward travel time range: 0–999 s

Mid - position holding time range: 0–999 s

Alarm sound pressure level: ≥ 80 dB

Output rating: AC 220 V / 5 A; DC 30 V / 5 A

Power consumption: < 15 W

Fire command center signal: dry contact signal or DC 24 V signal

DC 24 V: R = Anode, X = Cathode

For linkage control: Connect R and X correctly; set the fire command center to the normally closed contact mode

3. Circuit Board Layout & Terminal Definition

Left area: 8 connection terminals

Middle area: 7 connection terminals

Right area: 8 connection terminals

Terminal Definitions
D: Down limit position
A: Head shower
B: Up limit position
E: Common wire
C: Mid - position
F: DC 24 V output
G: Up limit switch
H: Down limit switch
I: Down button
M: Fire command center
J: Up button (V+: passive signal common; V–: active signal common)
K: Stop button
L: Electric lock box
N: Fire - smoke sensor
O: High - temperature (HT) sensor

4.Installation, Wiring & Commissioning

4.1 Installation

Inspect the controller enclosure and internal components for integrity.
Disconnect the main power supply before installation.
Mount the controller firmly and horizontally on the wall.

4.2 Wiring

Perform wiring strictly according to the circuit board diagram.
After wiring, verify that the insulation resistance between power terminals, motor terminals, and the motor casing is ≥ 1 MΩ.

4.3 Basic Commissioning

Power on and check that the normal indicator is illuminated.
If the indicator is off and an alarm sounds, refer to the Troubleshooting section.
Test the manual Up / Stop / Down functions.
If the Up/Down indicators are reversed, swap two motor phase lines.
Verify limit switch operation:
Manually trigger the limit switches; rewire the limit assembly if it is faulty.
Adjust the limit switches to set accurate door travel positions.

4.4 Time Control Procedure Setting

Open the enclosure and locate the blue DIP switch on the PCB.
Operate the motor to position the door above the mid - point.
Set Switch 1 = ON (others unchanged):
The door moves to the upper limit and then descends automatically.
Press Stop at the desired first position → Step 1 completed.
After the door stops, wait for the required holding duration, then press Stop again.
The door continues to the fully closed position → Step 2 completed.

Escape Height Setting:

Press Up. When the door reaches the required escape height, press Stop → Step 3 completed.

Escape Time Setting:

After stopping in Step 3, wait for the required duration, then press Stop again.

Return Switch 1 to its original position to save the settings.

4.5 Mode Selection (Procedure A / B / C)

Procedure A: Set Switch 2 = UP; others remain unchanged.

Connect the fire - smoke (YG) or HT terminal to the GD terminal.

Procedure B: Set Switch 3 = UP; others remain unchanged.

Connect YG to GD → the door moves to the mid - position; then connect WG to GD.

Procedure C: Set Switch 2 + 3 = UP; Switch 1 remains unchanged.

Connect the fire - smoke (YG) or HT terminal to the GD terminal.

5. Code Switch (Sw1 / Sw2 / Sw3)

Mode	Sw1	Sw2	Sw3
Procedure C	OFF	ON	OFF

ON = up; OFF = down

6. Troubleshooting

Symptom	Cause	Remedy
Continuous alarm after phase connection	Limit switches wired as Normally Open; required Normally Closed	Wire limit switches in Normally Closed mode
Up limit, down limit, or up/down button lines cross - connected	Swap any two incorrectly connected lines
Controller triggers immediately when sensors are connected	Sensor polarity reversed or short - circuited	Reconnect sensors with correct polarity; check for short - circuit
Sensors detect fire - smoke/HT but door does not move	Sensor output wiring incorrect or sensor defective	Reconnect output wires properly; replace the faulty sensor

7### Important Cautions

All wiring must comply with the wiring diagram.

Do not disassemble any internal components of the controller.

Do not open the operating controller unless you are a qualified technician.

Ensure the protective earth (PE) wire is securely connected.