



RSU100 Remote Status Unit

User Manual

1 Product overview

The RSU100 remote status unit is designed in according to European standard EN12094-1. The remote status unit is designed to extend the indication and partial control of the ECP1000 gas fire extinguishing control panel to locations outside of the extinguishant area, enabling the system to be used in a variety of application scenarios. Up to seven status units can be connected to each gas fire extinguishing control panel. All units connect to a two wire data communications bus and is powered by the auxiliary 24VDC output of the extinguishing control panel.



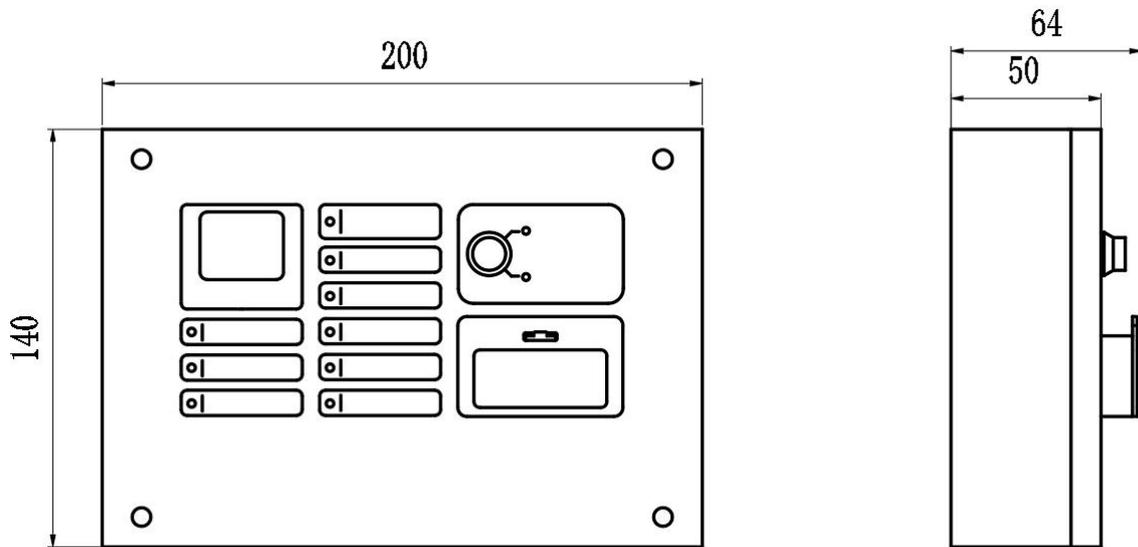
2 Technical parameters

Specification	
Operating voltage	DC 24V (21~30V)
Quiescent current	0.02A
Max. number of status units	7
Construction	Steel
IP Rating	IP30
Data connection	RS485
Communication distance	≤1200m
Cable capacity	2.5mm ²
Physical dimensions	
Dimensions (W×H×D)	200×140×50mm
Approx. weight (4 Loops)	1kg
Operating conditions	
Temperature range: -5 ° C~40 ° C; Max relative humidity: 95% (40 ° C ± 2 ° C, no condensation)	



3 Appearance and dimensions

Unit: mm



4 Indication description

Definitions	Color	Functional description
Fire Zone 1	Red	Fire alarm occurs in the ZONE1 detection circuit , This indicator light will be lit.
Fire Zone 2	Red	Fire alarm occurs in the ZONE2 detection circuit, This indicator light will be lit.
Fire	Red	General fire alarm indicator
Release Imminent	Yellow	When the deflation countdown starts, This indicator light will be lit.
Disabled	Yellow	If there is a shielding event in the gas extinction zone where the remote status unit is located, This indicator light will be lit.
Fault	Yellow	If there is a fault event in the gas extinguishment zone where the remote status unit is located, This indicator light will be lit.
Released	Red	This indicator light is used to indicate that the gas blow-out zone where the remote status unit is located has been started. This indicator illuminates in the following two cases:



		<p>A) The indicator lamp will be lit after the gas extinguishment area where the remote status unit is located is automatically or manually started for gas discharge output.</p> <p>When the pressure feedback signal is received in the gas extinguishment area where the remote status unit is located, this lamp will be on all the time, and the Release Imminent lamp will be lit.</p>
Hold Activated	Yellow	<p>The following two conditions will illuminate this indicator.</p> <p>A) When the remote HOLD OFF button is pressed, the lamp will be lit., and when the HOLD button is released, the lamp is off.</p> <p>B) If there is a line fault at the HOLD input, This indicator light will be lit.</p>
Power	Green	Power led.
AUTO&MANUAL	Yellow	<p>It indicates that the gas extinction zone where the remote status unit is located is currently in the automatic/manual mode.</p> <p>Note: If multiple remote status units are connected to the gas extinguish zone, this lamp will be lit only if all remote status units are in auto/manual mode.</p>
MANUAL ONLY	Yellow	<p>It indicates that the gas extinction zone where the remote status unit is located is currently in the manual mode only.</p> <p>Note: If more than one remote status board is connected to the gas extinguish zone, this light will be lit as long as one of the status boards is in manual only mode.</p>



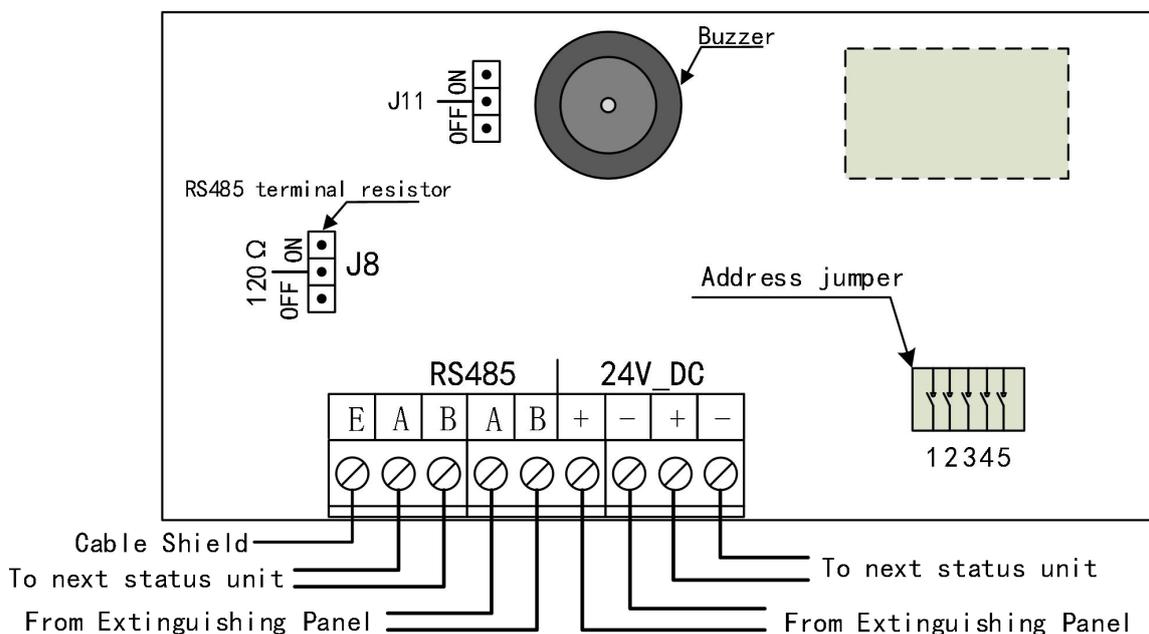
5 Description of buttons and switches

Definitions	Description
Extinguishant Release	Press this key, and the extinguishant area where the remote status unit is located enters the deflation process.
AUTO&MANUAL / MANUAL ONLY	Turning the key switch to AUTO&MANUAL indicates that the gas extinguish zone where the remote status unit is located in automatic/manual mode. Turning the key switch to MANUAL ONLY means that the extinguishant area where the remote status unit is located in manual only mode.

6 Use and engineering application

The remote status unit is wired through a row of terminals on one side of the circuit board, and the wiring terminals can be connected to a cable of 2.5mm² at most. All cables connected to the status panel must use shielded cables (such as FP200), and the shielding layer of the cable must be connected to the grounding terminal or firmly connected to the enclosure. The wiring shall be entered from the side or back of the enclosure using the hole plugs provided and shall be neatly connected to the corresponding terminals. The wiring shall not pass through the surface of the circuit board.

The buzzer can be turned on or off by manually setting the position of J11 jumper cap ("ON" by default).





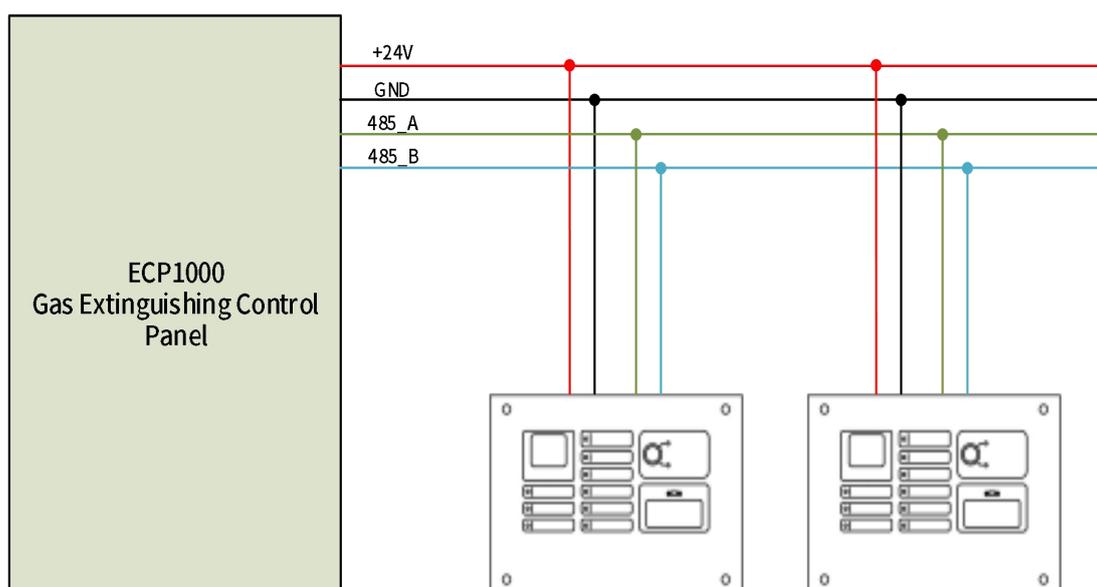
7 Address settings

The address of the remote status unit is set by the 3-bit address jumper (bits 4 and 5 are invalid), as shown in the following table.

Address	Address jumper			Address	Address jumper		
	1	2	3		1	2	3
1	1	0	0	5	1	0	1
2	0	1	0	6	0	1	1
3	1	1	0	7	1	1	1
4	0	0	1				

8 Connection with gas fire extinguishing control panel

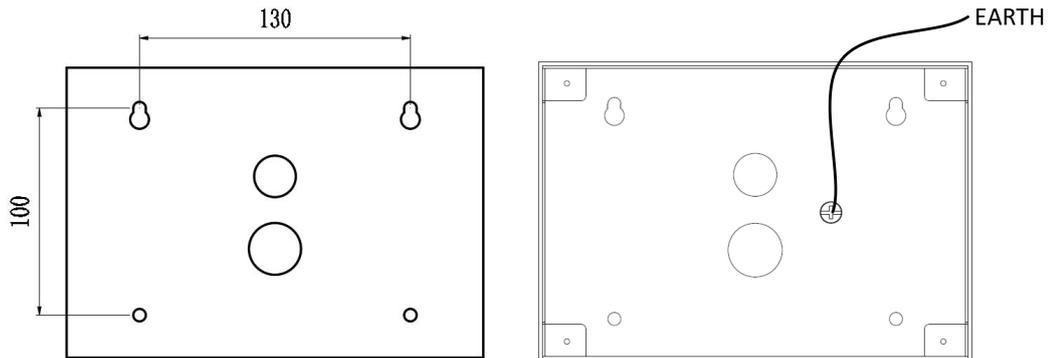
The remote status unit is connected with the gas fire extinguishing control panel through the communication line and the power supply line, and the cable resistance between the remote status unit and the gas fire extinguishing controller shall not exceed 25 Ω . A gas fire extinguishing controller is connected to 7 remote status units at most. When the communication distance between the remote status unit and the gas fire extinguishing controller is greater than 300m, a 120 Ω terminal resistor needs to be connected to the last remote status unit, that is, the J8 jumper on the board jumps to the ON position. At the same time, a 120 Ω terminal resistor also needs to be connected to the gas fire extinguisher controller.





9 Installation

RSU100 remote status unit is wall-mounted. During installation, align the hanging hole of the rear shell of the remote status unit with the hook, hang it gently and then align it with the fixing hole below and screw it. After the rear shell is fixed, connect the wire from the junction box to the terminal on the remote status unit. Connect the wire correctly according to the terminal label, and then close the front shell and lock it with matching screws. The rear shell hanging hole of the remote status unit is shown in the figure below.



Unit:mm

In order to enhance working stability, it is recommended that the shell of the remote status unit be connected to the earth when it is in use, and connect to the nearest earth through the ground stud in the housing. As shown in the figure below.

10 Symbolic Definitions

Symbols	Description
DANGER	Indicates a hazard with a high level of risk of death or serious injury if not avoided.
WARNING	Indicates a hazard with a medium level of risk that could result in death or serious injury if not avoided.
NOTE	Indicates a hazard with a low level of risk that could result in minor or moderate injury if not avoided.
NOTICE	Used to send warning messages of the equipment or environmental safety. Failure to avoid this may result in equipment damage, data loss, reduced device performance, or other unpredictable results. "Notice" does not involve personal injury.
INTRODUCTIONS	Additional explanation of key information in the text. "Description" is not a safety warning message, and does not involve personal, equipment or environmental injury information.



11 Maintenance and Troubleshooting

11.1 Maintenance

Periodic maintenance should be carried out on the system as prescribed in the local design, maintenance and installation regulations.

11.2 Troubleshooting

Solution of all suspected faults **MUST** only be carried out by suitably qualified technical engineers.

✧ **Problem** : apply power to the equipment but the display screen do not work.

Possible reason and solution : check whether the cable is properly connected between the control panel and the remote status unit; Check if the POWER indicator on the front panel is on, otherwise something is wrong with the remote status unit that the manufacturer should be informed.

✧ **Problem** : there is no sound in the buzzer.

Possible reason and solution : check whether the jumper cap near the buzzer is placed in the "on" position , otherwise something is wrong with the remote status unit that the manufacturer should be informed