Thrane & Thrane

Remote Alarm/Distress Box

TT-3042C

User manual

Document Number TT 98-107887-D. Release Date: 1. March 2006

REVISION HISTORY

Rev.	Date	Author	Section	Description / Remarks
A	30-Jan-1997	-	-	First revision
B	01-Nov-2005	MBC	-	Remote Incoming Mail LED
C	10-Feb-2006	JM	-	Drawings revised
D	01-Mar-2006	JM	-	Distress Alert revised Minor corrections

Figure 1: TT-3042C Remote Alarm/Distress Box.

Introduction

The purpose of the TT-3042C Remote Alarm/Distress Box is to initiate and send Distress Alerts, and to give alarms upon receipt of Distress/urgency EGC messages, and to indicate MES fault status of the TT-3020C/TT-3022D/TT-3000E systems.

The transceiver can supply power and control signals to a maximum of two (or three on the TT-3000E) TT-3042Cs in a distance of up to 100 meters.

Note: Since the TT-3042C can be used with different systems this manual will cover only the general aspects of the operation. For detailed information please refer to the system manual corresponding to the specific installation.

Distress Alert

To initiate and send a Distress Alert, open the protective Distress Cover and press the Distress Button for at least 5 seconds.

- While pressing the Distress Button, the button light will be flashing and the built-in audio alarm will beep.
- After 5 seconds the transceiver will issue a Distress Alert and the Distress Button light will turn steady on.
- When the alert has been acknowledged the Distress Button light will show a short off-period. On the TT-3000E system, this off-period will be repeated every 20 seconds.
- In the unlikely event that the distress alert is not acknowledged, the Distress Button light will turn off.

The Distress Button light can be turned off after the distress alert has been acknowledged by pressing either the Reset/Test button directly on the TT-3042C, or the STOP button on the transceiver (only for TT-3020C/TT-3022D).

Distress/urgency EGC messages

Received Distress/urgency EGC messages are indicated at the TT-3042C Remote Alarm/Distress Box by an audio alarm and a flashing Distress MSG LED.

The Audio Alarm can be turned off by pressing the Audio Reset/Test button, leaving the Distress MSG LED turned on.

Turning off the Distress MSG LED is done by pressing the Stop button on the transceiver (TT-3020C/TT-3022D) or by pressing the Reset/Test button on the TT-3042C and acknowledge the reset on the Message Terminal/DTE (TT-3000E).

MES Fault

The MES Fault LED is used to indicate faults detected by the transceiver, such as:

- High Bulletin Board Error Rate
- Printer Error
- Hardware or installation fault

The MES Fault LED will stay on as long as an error condition exists. See also Remote Mail Indication below.

Power Indicator

The illumination of the Power LED can be dimmed using the adjusting knob placed below the Power LED.

Distress Message Relay

The TT-3042C Remote Alarm/Distress Box includes a Distress Message relay for control of external alarm equipment. When enabled, the Distress Message relay will follow the Distress MSG LED.

See Table 3 on page 6 for information on jumper settings related to the Distress Message relay.

If more TT-3042C Remote Alarm/Distress Boxes are powered from the transceiver, only one Distress Message Relay should be enabled.

MES Fault Relay

The TT-3042C Remote Alarm/Distress Box includes a MES Fault Relay for control of external alarm equipment. If enabled, the MES Fault relay will follow the MES Fault LED.

See Table 3 on page 6 for information on jumper settings related to the MES Fault Relay.

If more TT-3042C Remote Alarm/Distress Boxes are powered from the transceiver, only one MES Fault Relay should be enabled. See also Remote Mail Indication below.

Optional Remote Mail Indication

It is possible to configure some transceivers (TT-3020C) to use the MES Fault LED for indicating incoming messages instead. In this configuration, the text "MES Fault" should be covered with the enclosed label with the text "Mail" instead. The use of this optional feature requires that the transceiver is configured properly (see the transceiver installation manual).
When Remote Mail Indication is enabled, MES Fault conditions will no longer be indicated on the TT-3042C box.

Test

Test facilities for tests of the TT-3042C Remote Alarm/Distress Box are provided from the Message Terminal/DTE connected to the transceiver. When the Distress Test Mode is entered at the Message Terminal/DTE, the Distress Button can be activated and tested without issuing a Distress Alert.

- Upon entering the Distress Test Mode a sequence activating the Distress MSG LED, Audio Alarm and the Fault LED starts:

Distress MSG LED	5 seconds
Audio Alarm + Distress MSG LED flashing	5 seconds
Fault LED	5 seconds

- Pressing the Audio Reset/Test button will stop this repeated sequence leaving the Audio Alarm beeping (for TT-3000E the sequence will continue independently of the Audio Reset/Test button status). If enabled, the Distress Relay and the Fault Relay will be activated following the activation of the Distress MSG LED and the MES Fault LED respectively. See also Remote Mail Indication above.

While pressing the Distress Button, the button light will be flashing slowly. After 5 seconds the Distress Button light will remain on.

On the TT-3000E system, the Distress Button light will show a short off-period, which will be repeated every 20 seconds.

When the Distress Test Mode is terminated at the Message Terminal/DTE, the distress capability at the TT-3042C Remote Alarm/Distress Box is restored.

Mounting

The TT-3042C Remote Alarm/Distress Box can be mounted either by using the 4 mounting holes inside the box, or, for console mounting, by using the enclosed mounting bracket. Use the enclosed mounting template for hole markings.

If required, the cable relief is easily moved from the end of the TT-3042C to the bottom feed hole for hidden cable installation. Place the enclosed Hole Cover in the exposed hole.

J1 PIN	TT-3042C Description	X4 PIN	TT-3020C/TT-3022D
1	+ 7.5 - 12 Volt	5	+9Volt for ext. devices
2	GND, cable screen not connected	6	GND, incl. cable screen
3	Distress button-lamp	1	In/Out 0
4	Buzzer/Buzzer knob	2	In/Out 1
5	To Distress Relay	3	In/Out 2
6	To Fault Relay	4	In/Out 3
7	Distress button	14	In 4
8	GND	15	In 5
9	Distress Relay contact pole 1		
10	Distress Relay contact pole 2		
11	Fault Relay contact pole 1		
12	Fault Relay contact pole 2		

Table 1: TT-3042C and TT-3020C/TT-3022D interconnections

J1 PIN	TT-3042C Description	J90X PIN	TT-3000E
1	+ 7.5 - 12 Volt	1	+9Volt for ext. devices
2	GND, cable screen not connected	2	GND
3	Distress button-lamp	3	In/Out 0
4	Buzzer/Buzzer knob	4	In/Out 1
5	To Distress Relay	5	In/Out 2
6	To Fault Relay	6	In/Out 3
7	Distress button	7	In 4
8	GND	8	In 5
9	Distress Relay contact pole 1		
10	Distress Relay contact pole 2		
11	Fault Relay contact pole 1		
12	Fault Relay contact pole 2		
-	-	Bracket	Cable screen

Table 2: TT-3042C and TT-3000E interconnections

Model	**TT-3042C, Remote Alarm/Distress Box**
General Specifications	The TT-3042C complies with the IEC 60945 standard.
Dimensions (H x W x D)	50 mm x 95 mm x 99 mm
Weight	0.32 Kg
Mountings	Wall mounting, 4 holes Ø4.0 mm Mounting bracket for console, 4 holes Ø4.0 mm
Power requirements	7.5V - 12V DC, Standby: 0.1W/@9V, Max.: 0.5W/@9V
Cable length / Type	Max. 100m / 8 wires, shielded signal cable, min 0.25 mm^2.
Connector	Internal screw terminals
Distress/MES Fault relays	Max. switching: 2A, 32V DC
Distress Message relay jumpers	Enable; W1: 1-2, Disable; W1: 2-3 †† Activated: Shorted; W2: 1-2 ††, Open; W2: 2-3
MES Fault relay jumpers	Enable; W3: 1-2, Disable; W3: 2-3 †† Activated: Open; W4: 1-2 ††, Shorted; W4: 2-3
Temperature	-25°C to 55°C operating, -40°C to 80°C storage
Relative humidity	95% non-condensing at 40°C
Vibration operational	Random vibrations: 5-20 Hz: 0.005 g^2/Hz 20-150 Hz: -3 dB/oct (0.5 g rms.) Sinusoidal vibrations: 2-15.8 Hz: 2.54 mm peak ampl. 10-100 Hz: 1.0 g peak acceleration
Vibration survival	Random vibrations: 5-20 Hz: 0.05g^2/Hz 20-150 Hz: -3 dB/oct (1.7g rms.) Sinusoidal vibrations: 2-15.8 Hz: 2.54 mm peak ampl. 10-100 Hz: 1.0g peak acceleration
Shock	Half sine: 20g/11ms

Table 3: TT-3042C Technical Specifications.

Note:
††: Factory setting.

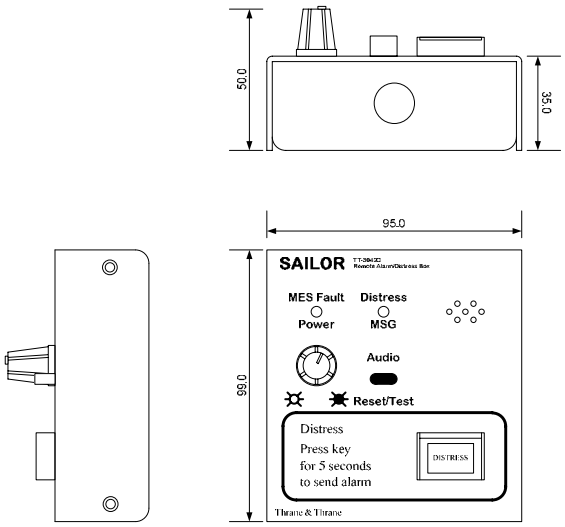

Figure 2: TT-3042C Outline drawing.

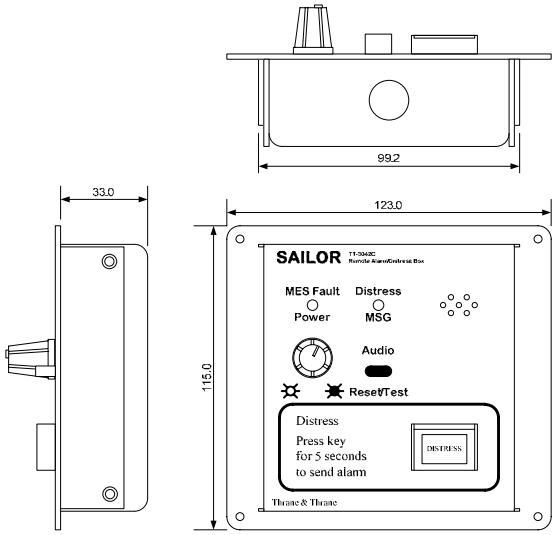

Figure 3: TT-3042C Outline drawing with console bracket