

# EST-DFMS Fireman Microphone

#### **Overview**

A EST ENT VES fireman microphone is a monitored external device working with Control Units in a redundant communication ring. It can thereby perform a superior function of a system control unit, too.

A fireman microphone can be used to activate alarm messages as well as general public announcements, to choose individual zones and to broadcast live voice messages. It is equipped with programmable function keys which can be used to assign functions as required. Up to 5 EST-EKB-20M keyboard extensions with additional function keys can be attached to a fireman microphone.

A CPU switch enables immediate and direct broadcasting of announcements to all zones without any involvement of the control system even during a failure of the central processor. The microphone is able to automatically detect a key failure and an audio path from the microphone capsule (inclusive) to the Control Unit.

A fireman microphone is also equipped with an intercom function and is able to communicate with other microphones in the system.



#### **Details**

- Monitored microphone and connection of the microphone module to the system
- A dedicated evacuation key
- 3 fully-programmable keys with a possibility of connecting up to five 20-key extensions
- Built-in 2 contact inputs and 2 relay outputs
- POE or external feeder based power supply
- Black-box function recording all announcements played during an alarm
- Built-in SFP modules and CAT5e for simplicity of implementation of the loop topology
- RS485 for communication with external systems
- Intercom function between all fireman and zone microphones

## EST-DFMS Fireman Microphone

### **Technical specifications**

extensions         Power source       Via LAN PoE or local power supply complies with EN 54-4         Input voltage       48 V connector 2 pin screw 5.08 mm         Physical       150 x 55 x 210 mm (W x H x D)         Transmission medium       fiber, UTP Cat. 5e         Number of parametric       2         Connector type for logic       screw 3.5 mm, 6 pin         inputs       modules type SFP / connector SC / LC / multimode or single-mode / E 30 or E 90, OM lul OM2         Accessories       connector with screw terminals 6 pins, the distance between the partitions 5.08 mm         Environmental       0°C to +60°C         Storage temperature       -2°C to +70°C         IP rating       31         Operating humidity       5% to 80%         Storage humidity       5% to 95%         Standards       EN54-16         Listening speaker       00         Output       0.5 W         SPL       78 dBA (at 1m, 1W)         Frequency response (3       450 Hz - 6 kHz (at 3 dB)         Impedance       500 Ω         Signal       -40 to 30 dBu         Sensitivity       -66 dB         Cable type, length       spiral - 1.5 m         Microphone connector       5 pin DIN         Keyboard and	Power consumption	266 mA max. for 48 VDC / 5 keyboard
EN 54-4           Input voltage         48 V connector 2 pin screw 5.08 mm           Physical         fiber, UTP Cat. 5e           Physical dimensions         150 x 55 x 210 mm (W x H x D)           Transmission medium         fiber, UTP Cat. 5e           Number of parametric         2           Onnector type for logic         screw 3.5 mm, 6 pin           input/output         Type of fiber optic         modules type SFP / connector SC / LC / multimode or single-mode / E 30 or E 90, OM lul OM2           Accessories         connector with screw terminals 6 pins, the distance between the partitions 5.08 mm           Environmental         Operating temperature         -20°C to +70°C           IP rating         31         Operating humidity         15% to 80%           Storage temperature         -20°C to +70°C         Present           IP rating         31         Operating humidity         5% to 95%           Standards         EN54-16         Ensenting speaker         Storage temperature           Output         0.5 W         SpPL         78 dBA (at 1m, 1W)           Frequency response (3         450 Hz - 6 kHz (at 3 dB)         Signal           Impedance         500 Ω         Signal         -40 to 30 dBu           Sensitivity         -66 dB         Cable type, length		
Physical         Physical dimensions       150 x 55 x 210 mm (W x H x D)         Transmission medium       fiber, UTP Cat. 5e         Number of parametric       2         inputs       2         Connector type for logic       screw 3.5 mm, 6 pin         input/output       7         Type of fiber optic       modules type SFP / connector SC / LC / multimode or single-mode / E 30 or E 90, OM lul OM2         Accessories       connector with screw terminals 6 pins, the distance between the partitions 5.08 mm         Environmental       0°C to +60°C         Operating temperature       -20°C to +70°C         IP rating       31         Operating humidity       15% to 80%         Storage humidity       5% to 95%         Standards       EN54-16         Listening speaker       Output         Output       0.5 W         SPL       78 dBA (at 1m, 1W)         Frequency response (3 450 Hz 8 kHz dB)       450 Hz 8 kHz         Microphone connector       5 pin DIN         Keyboard and controls       Spinal -1.5 m         Number of control panel 2 LED / button       Sumber of control panel 2 LED / button         Dutros       3         Number of control panel 2 LED / button       Sutons	Power source	via LAN PoE or local power supply complies with EN 54-4
Physical dimensions       150 x 55 x 210 mm (W x H x D)         Transmission medium       fiber, UTP Cat. 5e         Number of parametric       2         inputs       2         Connector type for logic       screw 3.5 mm, 6 pin         input/output       modules type SFP / connector SC / LC / multimode or single-mode / E 30 or E 90, OM lul OM2         Accessories       connector with screw terminals 6 pins, the distance between the partitions 5.08 mm         Environmental       0°C to +60°C         Storage temperature       20°C to +70°C         IP rating       31         Operating humidity       15% to 80%         Storage humidity       5% to 95%         Standards       EN54-16         Listening speaker       200 Utput         Output       0.5 W         SPL       78 dBA (at 1m, 1W)         Frequency response       450 Hz 8 kHz         dB)       400 Hz - 6 kHz (at 3 dB)         Impedance       500 Ω         Signal       -40 to 30 dBu         Sensitivity       -66 dB         Cable type, length       spiral - 1.5 m         Microphone connector       5 pin DIN         Keyboard and controls       3         Number of control panel       2 LD / butt	Input voltage	48 V connector 2 pin screw 5.08 mm
Transmission medium       fiber, UTP Cat. 5e         Number of parametric       2         inputs       2         Number of relay outputs       2         Connector type for logic       screw 3.5 mm, 6 pin         input/output       modules type SFP / connector SC / LC /         Type of fiber optic       modules type SFP / connector SC / LC /         multimode or single-mode / E 30 or E 90, OM lul       OM2         Accessories       connector with screw terminals 6 pins,         the distance between the partitions 5.08 mm       Environmental         Operating temperature       0°C to +60°C         Storage temperature       20°C to +70°C         IP rating       31         Operating humidity       15% to 80%         Storage humidity       5% to 95%         Standards       EN54-16         Listening speaker       Output         Output       0.5 W         SPL       78 dBA (at 1m, 1W)         Frequency response (3       450 Hz 8 kHz         dB)       Signal       -40 to 30 dBu         Sensitivity       -66 dB       Cable type, length       spiral - 1.5 m         Microphone connector       5 pin DIN       Keyboard and controls         Number of buttons	Physical	
Number of parametric 2         inputs         Number of relay outputs 2         Connector type for logic screw 3.5 mm, 6 pin         input/output         Type of fiber optic         modules type SFP / connector SC / LC / multimode or single-mode / E 30 or E 90, OM lul OM2         Accessories       connector with screw terminals 6 pins, the distance between the partitions 5.08 mm         Environmental         Operating temperature       0°C to +60°C         Storage temperature       20°C to +70°C         IP rating       31         Operating humidity       15% to 80%         Storage humidity       5% to 95%         Standards & regulation       Standards         Standards       EN54-16         Listening speaker       0.5 W         Output       0.5 W         SPL       78 dBA (at 1m, 1W)         Frequency response (3 d50 Hz 8 kHz dB)         Impedance       500 Ω         Signal       -40 to 30 dBu         Sensitivity       -66 dB         Cable type, length       spiral - 1.5 m         Microphone connector       5 pin DIN         Keyboard and controls       Number of buttons         Number of buttons       3         Number of control	Physical dimensions	150 x 55 x 210 mm (W x H x D)
inputs       Number of relay outputs       2         Connector type for logic       screw 3.5 mm, 6 pin         input/output       modules type SFP / connector SC / LC /         Type of fiber optic       modules type SFP / connector SC / LC /         multimode or single-mode / E 30 or E 90, OM lul       OM2         Accessories       connector with screw terminals 6 pins,         the distance between the partitions 5.08 mm       Environmental         Operating temperature       0°C to +60°C         Storage temperature       -20°C to +70°C         IP rating       31         Operating humidity       15% to 80%         Storage humidity       5% to 95%         Standards       EN54-16         Listening speaker       20         Output       0.5 W         SPL       78 dBA (at 1m, 1W)         Frequency response       400 Hz - 6 kHz (at 3 dB)         Impedance       500 Ω         Signal       -40 to 30 dBu         Sensitivity       -66 dB         Cable type, length       spiral - 1.5 m         Microphone connector       5 pin DIN         Keyboard and control panel       2 LD / button         Number of buttons       3         Number of control panel	Transmission medium	fiber, UTP Cat. 5e
Connector type for logic       screw 3.5 mm, 6 pin         input/output       modules type SFP / connector SC / LC /         Type of fiber optic       modules type SFP / connector SC / LC /         multimode or single-mode / E 30 or E 90, OM lul       OM2         Accessories       connector with screw terminals 6 pins, the distance between the partitions 5.08 mm         Environmental       0°C to +60°C         Storage temperature       -20°C to +70°C         IP rating       31         Operating humidity       15% to 80%         Storage humidity       5% to 95%         Standards & regulation       Standards         Standards       EN54-16         Listening speaker       Output         Output       0.5 W         SPL       78 dBA (at 1m, 1W)         Frequency response (3       450 Hz 8 kHz         dB)       Mudoi input         Frequency response       400 Hz - 6 kHz (at 3 dB)         Impedance       500 Ω         Signal       -40 to 30 dBu         Sensitivity       -66 dB         Cable type, length       spinal - 1.5 m         Microphone connector       5 pin DIN         Keyboard and controls       Number of buttons         Number of buttons <t< td=""><td></td><td>2</td></t<>		2
input/output Type of fiber optic Type of subscription Type of	Number of relay outputs	2
multimode or single-mode / E 30 or E 90, OM lul         OM2         Accessories       connector with screw terminals 6 pins, the distance between the partitions 5.08 mm         Environmental         Operating temperature       0°C to +60°C         Storage temperature       -20°C to +70°C         IP rating       31         Operating humidity       15% to 80%         Storage humidity       5% to 95%         Standards & regulation       Standards         Standards       EN54-16         Listening speaker       Output         Output       0.5 W         SPL       78 dBA (at 1m, 1W)         Frequency response (3       450 Hz 8 kHz         dB)       450 Hz 8 kHz         Adio input       Frequency response         Frequency response       400 Hz - 6 kHz (at 3 dB)         Impedance       500 Ω         Signal       -40 to 30 dBu         Sensitivity       -66 dB         Cable type, length       spiral - 1.5 m         Microphone connector       5 pin DIN         Keyboard and controls       Number of control panel         Number of buttons       3         Number of control panel       2 LED / button         buttons		screw 3.5 mm, 6 pin
the distance between the partitions 5.08 mm         Environmental         Operating temperature       -20°C to +60°C         Storage temperature       -20°C to +70°C         IP rating       31         Operating humidity       15% to 80%         Storage humidity       5% to 95%         Standards & regulation       Standards         Standards       EN54-16         Listening speaker       Output         Output       0.5 W         SPL       78 dBA (at 1m, 1W)         Frequency response (3       450 Hz 8 kHz         B)       450 Hz 8 kHz         Audio input       -66 dB         Frequency response       400 Hz - 6 kHz (at 3 dB)         Impedance       500 Ω         Signal       -40 to 30 dBu         Sensitivity       -66 dB         Cable type, length       spiral - 1.5 m         Microphone connector       5 pin DIN         Keyboard and controls       3         Number of buttons       3         Number of control panel       2 LED / button         buttons       15 x 25 mm         buttons description       Three normative LED	Type of fiber optic	multimode or single-mode / E 30 or E 90, OM lub
Operating temperature       0°C to +60°C         Storage temperature       -20°C to +70°C         IP rating       31         Operating humidity       15% to 80%         Storage humidity       5% to 95%         Standards & regulation       Standards         Standards       EN54-16         Listening speaker       Output         Output       0.5 W         SPL       78 dBA (at 1m, 1W)         Frequency response (3       450 Hz 8 kHz         dB)       Audio input         Frequency response (3 450 Hz 8 kHz       dB)         Impedance       500 Ω         Signal       -40 to 30 dBu         Sensitivity       -66 dB         Cable type, length       spiral - 1.5 m         Microphone connector       5 pin DIN         Keyboard and controls       Number of buttons         Number of buttons       3         Number of control panel 2 LED / button       buttons         Dimensions of the       15 x 25 mm         buttons description       Three normative LED	Accessories	
Storage temperature       -20°C to +70°C         IP rating       31         Operating humidity       15% to 80%         Storage humidity       5% to 95%         Standards       EN54-16         Listening speaker       0utput         Output       0.5 W         SPL       78 dBA (at 1m, 1W)         Frequency response (3       450 Hz 8 kHz         dB)       450 Hz 8 kHz         Mation input       500 Ω         Signal       -40 to 30 dBu         Sensitivity       -66 dB         Cable type, length       spiral - 1.5 m         Microphone connector       5 pin DIN         Keyboard and controls       Number of buttons         Number of control panel       2 LED / button         buttons       15 x 25 mm         buttons description       Three normative LED         Color LEDs: power - green / failure - yellow /	Environmental	
IP rating       31         Operating humidity       15% to 80%         Storage humidity       5% to 95%         Standards       EN54-16         Listening speaker       0utput         Output       0.5 W         SPL       78 dBA (at 1m, 1W)         Frequency response (3       450 Hz 8 kHz         dB)       450 Hz 8 kHz         Mudio input       500 Ω         Signal       -40 to 30 dBu         Sensitivity       -66 dB         Cable type, length       spiral - 1.5 m         Microphone connector       5 pin DIN         Keyboard and controls       Number of buttons         Number of control panel       2 LED / button         buttons       15 x 25 mm         buttons description       Three normative LED	Operating temperature	0°C to +60°C
Operating humidity       15% to 80%         Storage humidity       5% to 95%         Standards & regulation         Standards       EN54-16         Listening speaker         Output       0.5 W         SPL       78 dBA (at 1m, 1W)         Frequency response (3       450 Hz 8 kHz         dB)       450 Hz 8 kHz         Audio input       500 Ω         Signal       -40 to 30 dBu         Sensitivity       -66 dB         Cable type, length       spiral - 1.5 m         Microphone connector       5 pin DIN         Keyboard and controls       3         Number of buttons       3         Number of control panel       2 LED / button         buttons       15 x 25 mm         Dimensions of the       15 x 25 mm         buttons description       Three normative LED	Storage temperature	-20°C to +70°C
Storage humidity       5% to 95%         Standards & regulation         Standards       EN54-16         Listening speaker         Output       0.5 W         SPL       78 dBA (at 1m, 1W)         Frequency response (3       450 Hz 8 kHz         dB)       450 Hz 8 kHz         Mathematical Strength       500 Ω         Signal       -40 to 30 dBu         Sensitivity       -66 dB         Cable type, length       spiral - 1.5 m         Microphone connector       5 pin DIN         Keyboard and controls       Number of control panel         Number of control panel       2 LED / button         buttons       15 x 25 mm         buttons description       Three normative LED         Color LEDs: power - green / failure - yellow /	IP rating	31
Standards & regulation         Standards       EN54-16         Listening speaker         Output       0.5 W         SPL       78 dBA (at 1m, 1W)         Frequency response (3       450 Hz 8 kHz         dB)       450 Hz 8 kHz         Audio input       Frequency response (3 450 Hz 8 kHz         Frequency response (3 450 Hz 8 kHz       GB)         Audio input       Frequency response 400 Hz - 6 kHz (at 3 dB)         Impedance       500 Ω         Signal       -40 to 30 dBu         Sensitivity       -66 dB         Cable type, length       spiral - 1.5 m         Microphone connector       5 pin DIN         Keyboard and controls       Number of control panel 2 LED / button         Number of control panel 2 LED / button       buttons         Dimensions of the       15 x 25 mm         buttons description       Three normative LED       color LEDs: power - green / failure - yellow /	Operating humidity	15% to 80%
Standards       EN54-16         Listening speaker       Output       0.5 W         SPL       78 dBA (at 1m, 1W)         Frequency response (3       450 Hz 8 kHz         dB)       Audio input         Frequency response       400 Hz - 6 kHz (at 3 dB)         Impedance       500 Ω         Signal       -40 to 30 dBu         Sensitivity       -66 dB         Cable type, length       spiral - 1.5 m         Microphone connector       5 pin DIN         Keyboard and controls         Number of control panel       2 LED / button         buttons       3         Dimensions of the       15 x 25 mm         buttons description       Three normative LED       color LEDs: power - green / failure - yellow /	Storage humidity	5% to 95%
Listening speaker         Output       0.5 W         SPL       78 dBA (at 1m, 1W)         Frequency response (3       450 Hz 8 kHz         dB)       450 Hz 8 kHz         Audio input       450 Hz 8 kHz         Frequency response       400 Hz - 6 kHz (at 3 dB)         Impedance       500 Ω         Signal       -40 to 30 dBu         Sensitivity       -66 dB         Cable type, length       spiral - 1.5 m         Microphone connector       5 pin DIN         Keyboard and controls         Number of buttons       3         Number of control panel       2 LED / button         buttons       15 x 25 mm         buttons description       Three normative LED         Color LEDs: power - green / failure - yellow /	Standards & regula	tion
Output       0.5 W         SPL       78 dBA (at 1m, 1W)         Frequency response (3       450 Hz 8 kHz         dB)       Audio input         Frequency response       400 Hz - 6 kHz (at 3 dB)         Impedance       500 Ω         Signal       -40 to 30 dBu         Sensitivity       -66 dB         Cable type, length       spiral - 1.5 m         Microphone connector       5 pin DIN         Keyboard and controls         Number of buttons       3         Number of control panel       2 LED / button         buttons       15 x 25 mm         buttons description       Three normative LED         Color LEDs: power - green / failure - yellow /	Standards	EN54-16
SPL       78 dBA (at 1m, 1W)         Frequency response (3       450 Hz 8 kHz         dB)       Audio input         Frequency response       400 Hz - 6 kHz (at 3 dB)         Impedance       500 Ω         Signal       -40 to 30 dBu         Sensitivity       -66 dB         Cable type, length       spiral - 1.5 m         Microphone connector       5 pin DIN         Keyboard and controls         Number of buttons       3         Number of control panel       2 LED / button         buttons       15 x 25 mm         Dimensions of the       15 x 25 mm         buttons description       Three normative LED       color LEDs: power - green / failure - yellow /	Listening speaker	
Frequency response (3       450 Hz 8 kHz         dB)       Audio input         Frequency response       400 Hz - 6 kHz (at 3 dB)         Impedance       500 Ω         Signal       -40 to 30 dBu         Sensitivity       -66 dB         Cable type, length       spiral - 1.5 m         Microphone connector       5 pin DIN         Keyboard and controls         Number of buttons       3         Number of control panel       2 LED / button         buttons       15 x 25 mm         buttons description       Three normative LED         Color LEDs: power - green / failure - yellow /	Output	0.5 W
dB)         Audio input         Frequency response       400 Hz - 6 kHz (at 3 dB)         Impedance       500 Ω         Signal       -40 to 30 dBu         Sensitivity       -66 dB         Cable type, length       spiral - 1.5 m         Microphone connector       5 pin DIN         Keyboard and controls         Number of buttons       3         Number of control panel       2 LED / button         buttons       15 x 25 mm         Dimensions of the       15 x 25 mm         buttons description       color LEDs: power - green / failure - yellow /	SPL	78 dBA (at 1m, 1W)
Frequency response       400 Hz - 6 kHz (at 3 dB)         Impedance       500 Ω         Signal       -40 to 30 dBu         Sensitivity       -66 dB         Cable type, length       spiral - 1.5 m         Microphone connector       5 pin DIN         Keyboard and controls         Number of buttons       3         Number of control panel       2 LED / button         buttons       15 x 25 mm         buttons description       Three normative LED         color LEDs: power - green / failure - yellow /		450 Hz 8 kHz
Impedance       500 Ω         Signal       -40 to 30 dBu         Sensitivity       -66 dB         Cable type, length       spiral - 1.5 m         Microphone connector       5 pin DIN         Keyboard and controls         Number of buttons       3         Number of control panel       2 LED / button         buttons       15 x 25 mm         Dimensions of the       15 x 25 mm         buttons description       color LEDs: power - green / failure - yellow /	Audio input	
Signal       -40 to 30 dBu         Sensitivity       -66 dB         Cable type, length       spiral - 1.5 m         Microphone connector       5 pin DIN         Keyboard and controls         Number of buttons       3         Number of control panel       2 LED / button         buttons       15 x 25 mm         buttons description       color LEDs: power - green / failure - yellow /	Frequency response	400 Hz – 6 kHz (at 3 dB)
Sensitivity       -66 dB         Cable type, length       spiral - 1.5 m         Microphone connector       5 pin DIN         Keyboard and controls         Number of buttons       3         Number of control panel       2 LED / button         buttons       15 x 25 mm         Dimensions of the       15 x 25 mm         buttons description       color LEDs: power - green / failure - yellow /	Impedance	500 Ω
Cable type, length       spiral - 1.5 m         Microphone connector       5 pin DIN         Keyboard and controls         Number of buttons       3         Number of control panel       2 LED / button         buttons       5         Dimensions of the       15 x 25 mm         buttons description       color LEDs: power - green / failure - yellow /	Signal	-40 to 30 dBu
Microphone connector 5 pin DIN  Keyboard and controls  Number of buttons 3  Number of control panel 2 LED / button buttons  Dimensions of the 15 x 25 mm buttons description  Three normative LED color LEDs: power - green / failure - yellow /	Sensitivity	-66 dB
Keyboard and controls         Number of buttons       3         Number of control panel       2 LED / button         buttons	Cable type, length	spiral - 1.5 m
Number of buttons 3 Number of control panel 2 LED / button buttons Dimensions of the 15 x 25 mm buttons description Three normative LED color LEDs: power – green / failure – yellow /	Microphone connector	5 pin DIN
Number of control panel 2 LED / button buttons Dimensions of the 15 x 25 mm buttons description Three normative LED color LEDs: power – green / failure – yellow /	Keyboard and cont	rols
buttons Dimensions of the 15 x 25 mm buttons description Three normative LED color LEDs: power - green / failure - yellow /	Number of buttons	3
buttons description Three normative LED color LEDs: power – green / failure – yellow /		2 LED / button
Three normative LED color LEDs: power - green / failure - yellow /	Dimensions of the buttons description	15 x 25 mm
	Three normative LED	

## Logic Input / Output

Number of I / O logic	2 independent channels; galvanically isolated; each channel has 1 fully programmable input and output (NO / NC)
Parametric input source for monitor mode	passive; standard resistors 10 k    10 k $\Omega$ or 4,7 k $\Omega$ 4,7 k $\Omega$ detection thresholds 0/1 / open / set in the application configuration
Type of socket I / O logic 6-pin screw terminal type PHOENIX, 3.5 mm	
CPU-OFF switch	slide switch, two position, signaling LED color: yellow



As a company of innovation, UTC Fire & Security reserves the right to change product specifications without notice. For the latest product specifications, visit UTC Fire & Security online or contact your sales representative.