



Kingfisher Company, inc.

## STAR - ELT SOFTWARE DEFINED RADIO ALARM TRANSMITTER



### Features:

- Box Number and Test Time can be easily programmed by an Android or iOS handheld mobile device
- 4 Zones that can transmit Emergency Response signals such as Fire, Medical, Supervisory, Police, etc.
- Zones can be enabled or bypassed via programming
- **STAR-ELT** can be connected to standard fire panels
- Meets and exceeds NFPA 72 and 1221 standards
- F.C.C. Certificated, FM Approved
- Powered by FACP or other FM approved 24V source
- Optional AC line power with backup battery
- Automatic Self-Testing
- Ground fault detection by zone
- Dry contact trouble output relay
- Includes Kingfisher 211 lock
- Expandable up to 44 Zones
- 5G Cellular Interface Option



**STAR-ELT** Software Defined Radio Transmitter

### Description:

The **STAR-ELT** 4-Zone Software Defined Radio Fire Alarm transmitter is a self-contained Auxiliary Signaling Device that responds to contact closures from standard fire panels, emergency switch devices, supervisory switch devices, and auxiliary switch devices and transmits encoded emergency event messages to a compatible Kingfisher receiver. The **STAR-ELT** is contained in a NEMA-1 cabinet and derives power from a 120VAC branch circuit or directly from the 24V output of an FM approved FACP or auxiliary power source. Programming is easily accomplished using a standard Android or iOS mobile device. The STAR-ELT supports an optional 5G IoT interface for enhanced communication and maintenance.

### Operation:

The STAR-ELT is a microprocessor-based device that utilizes state of the art software defined radio technology to generate an appropriate alarm message and transmit the message on a software-generated VHF frequency.

It is housed in a NEMA-1 cabinet and derives power from either an FM approved FACP or auxiliary power source, or directly from a 120VAC line circuit using an optional AC power supply module. When the optional AC supply is used the STAR-ELT also requires a backup battery, and will periodically check its status and supply charging voltage to keep the battery fully charged. Depending on the type of backup battery installed, the STAR-ELT can operate in standby mode for 96 hours following a power failure when the optional AC power supply module is used.

The STAR-ELT main board monitors four Class B inputs. Through the use of 8-Zone Expanders, the zone count can be increased to 44 zones. Each input is supervised individually for ground fault conditions and wiring faults. When an alarm condition is validated the STAR-ELT builds an alarm message based on the input activation which is then transmitted on a preselected VHF radio frequency channel. Several alarm message formats that conform to Kingfisher messaging standards can be selected. An optional 5G IoT module provides enhanced communications and maintenance features. Message format specifics are selected by the alarm technician via wireless programming using standard iOS or Android mobile devices.

## Specifications:

### Alarm Interface:

**Monitored Dry Contact Input Zones:** 4 (Up to 44 Zones) (Connect only ONE contact per zone)  
**Input Termination Resistance:** 10 k $\Omega$   
**Dry Contact Trouble Output:** 1 (OPEN when STAR-ELT is in Normal Condition)

### Power Sources:

#### FACP Powered:

**DC Voltage Range:** 20.4— 26.5 (VDC from an FM approved source)  
**DC Standby Current:** 100mA Average / 115mA Peak  
**DC Alarm Current:** 300mA Average / 370mA Peak (during transmission)

#### Optional AC Power Supply:

**AC Voltage Range:** 102-264 VAC (with optional AC power supply installed)  
**AC Frequency:** 50-60 Hz  
**AC Current:** Standby 0.5 Amps @115 VAC @ 60Hz ( Model 99420 only)  
Maximum-fused at 1amp

#### Optional Backup Battery

**(Required only when Optional AC Power Supply is used)**

**Optional Backup Battery Voltage:** 12 Volts Nominal  
**Optional Backup Battery Capacity:** 12 Volt, 7AH Sealed Lead Acid Gel Cell

### Radio:

**Frequency Range (FCC and NTIA):** 72 MHz through 176 MHz  
**Modulation:** AM  
**Power Limitation:** Transmitter output 1 watt maximum (FCC)  
**Bandwidth:** Meets FCC and NTIA Narrowband requirements  
**Cellular Option:** 5G

### Environmental:

**Temperature Range (Operational):** 0C (32°F) through 50°C (122°F)  
**Temperature Range (Storage):** -20°C (-4°F) through 70°C (158°F)  
**Humidity:** <95% non-condensing

### Dimensions:

**NEMA 1:** 18" H x 12" W x 3.3" D (Up to 12 Zones)  
30" H x 16.25" W x 3.5" D (Up to 44 Zones)

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## ORDERING INFORMATION

KCi #	Model #	Description
99420	ELT-04-PS	STAR-ELT Transmitter 4 Zone— 120VAC Line Power (backup battery required)
99421	ELT-04-FP	STAR-ELT Transmitter 4 Zone— +24VDC Power from FM Approved Source
99420-12	ELT-12-PS	STAR-ELT Transmitter 12 Zone— 120VAC Line Power (backup battery required)
99420-20	ELT-20-PS	STAR-ELT Transmitter 20 Zone— 120VAC Line Power (backup battery required)
99420-28	ELT-28-PS	STAR-ELT Transmitter 28 Zone— 120VAC Line Power (backup battery required)
99420-36	ELT-36-PS	STAR-ELT Transmitter 36 Zone— 120VAC Line Power (backup battery required)
99420-44	ELT-44-PS	STAR-ELT Transmitter 44 Zone— 120VAC Line Power (backup battery required)
<b>Options</b>		
66320	ELT-MMB	STAR-ELT Main Board—Field Replacement Kit
66321	ELT-PS	STAR-ELT 120VAC Power Supply— Field Replacement Kit
66324	ELT-PSC	STAR-ELT 24VDC Power Isolation Module—Field Replacement Kit
66322	ELT-08-ZEM	STAR-ELT 8 Zone Expander Board
66328	ELT-5GM	STAR-ELT Cellular 5G Interface Board
97953	FPF	Factory Programmed Frequency—Required at time of order (no charge)
99420-DTS	STAR-ELT-DTS	Specification Data Sheet

### Installations:

- All installations shall comply with the Kingfisher Antenna Installation manual part # 75092

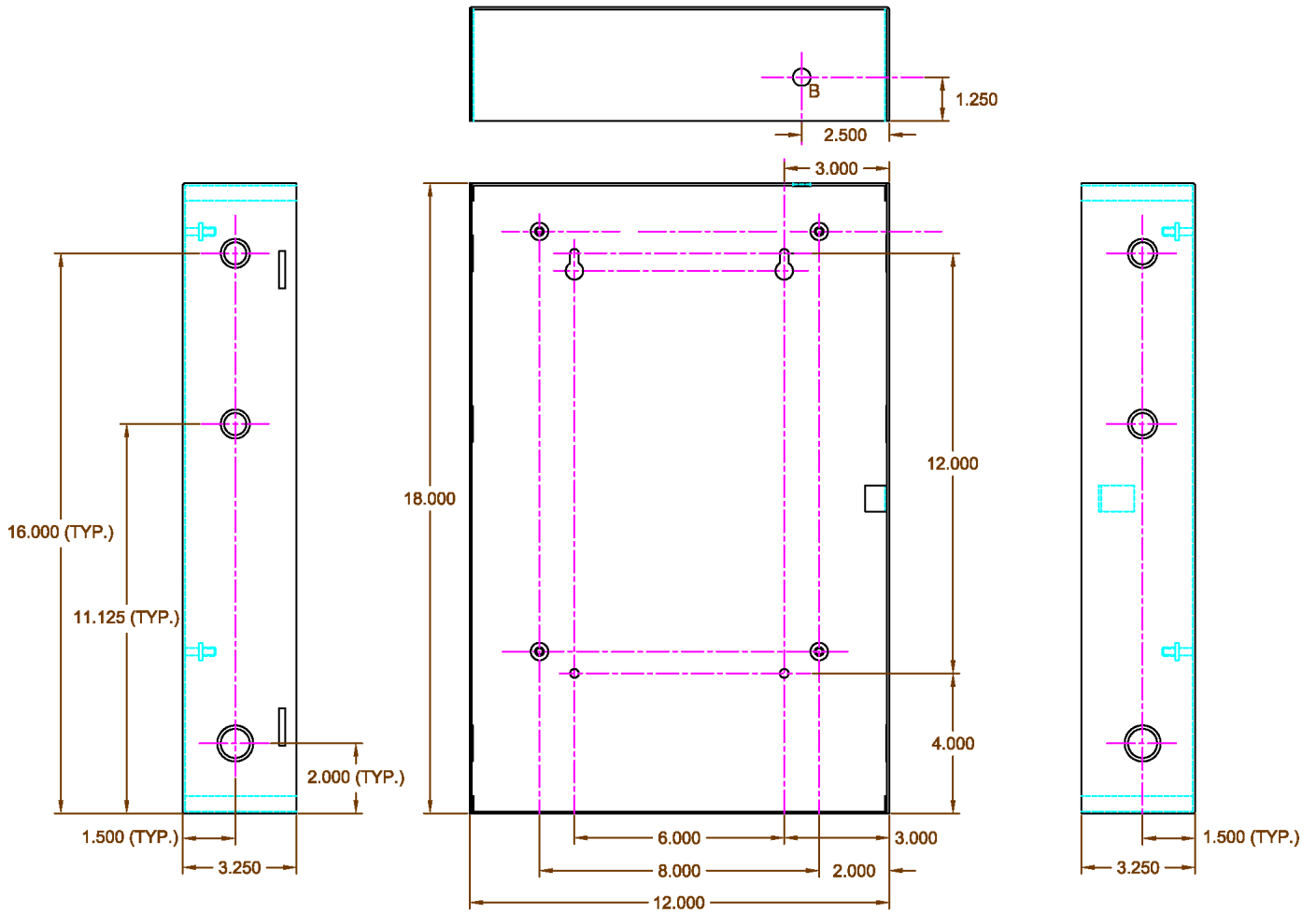
Kingfisher Company, inc., products must be used within their published specifications and must be PROPERLY specified, applied, installed, operated, maintained and operationally tested in accordance with their installation instructions at the time of installation and at least twice a year or more often and in accordance with local, state and federal codes, regulations and laws. Specification, application, installation, operation, maintenance and testing must be performed by qualified personnel for proper operation in accordance with all of the latest National Fire Protection Association (NFPA), Underwriters' Laboratories (UL), National Electrical Code (NEC), Occupational Safety and Health Administration (OSHA), local, state, county, province, district, federal and other applicable building and fire standards, guidelines, regulations, laws and codes including, but not limited to, all appendices and amendments and the requirements of the local authority having jurisdiction (AHJ).

NOTE: Due to continuous development of our products, specifications and offerings are subject to change without notice in accordance with Kingfisher Company, inc., standard terms and conditions

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# DRAWINGS AND DIAGRAMS

## Dimensions:



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