

99420

STAR-ELT Transmitter

Features:

- Box Number, Test Time, and Zone parameters are easily field programmed via a built-in cordless programming interface
- 4 Zones that can transmit Emergency Response signals such as Fire, Police, Medical, Supervisory, 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
- FCC Certificated, FM Approve, ETL Listed
- Wide input 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



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 120/240 VAC branch circuit. Programming is easily accomplished using a standard Android or iOS mobile device.

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 directly from a 120/240 VAC line circuit using an integral AC power supply module, which also supports a backup battery and will periodically check its status and supply charging voltage to keep the battery full charged. Depending on the type of backup battery installed, the STAR-ELT can operate in standby mode for 72 hours following a power failure.

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. Alarm message formats conform to proprietary Kingfisher message standards. Programming the site frequency, box number, automated test time, and zone parameters can be programmed in the field by the alarm technician via cordless programming interface.



Kingfisher Company, inc.

99420**STAR-ELT Transmitter****Specifications:**

Alarm Interface:	
Monitored Dry Contact Input Zones:	4 (Up to 44 Zones) (Connected only ONE contact per zone)
Input Termination Resistance:	10 k Ω
Dry Contact Trouble Output:	1 (OPEN when STAR-ELT is in Normal Condition)
Power Sources:	
<u>FACP Powered</u>	
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)
<u>AC Power Supply</u>	
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
<u>Backup Battery</u>	(Required only when optional AC Power Supply is used)
Backup Battery Voltage:	12 Volts Nominal
Backup Battery Capacity:	12 Volts, 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
IOT Options:	Cellular, Ethernet, WiFi
Cellular Options:	5G/LTE/4G/3G/2G Multi-Carrier
Environmental:	
Temperature Range (Operational):	0°C-50°C (-4°F-122°F)
Temperature Range (Storage):	-20°C-70°C (-4°F-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 3.4" D (Up to 44 Zones))
NEMA 3:	26" H x 20" W x 6.6" D

**Kingfisher Company, inc.**

STAR-ELT Transmitter

Ordering Information:

KCi #	Model #	Description
99420	ELT-04-PS	STAR-ELT Transmitter 4-Zone - 120/240 VAC Line Power (backup battery required)
99421	ELT-04-FP	STAR-ELT Transmitter 4-Zone - +24 VDC Power from FM Approved Source
99420-12	ELT-12-PS	STAR-ELT Transmitter 12-Zone - 120/240 VAC Line Power (backup battery required)
99420-20	ELT-20-PS	STAR-ELT Transmitter 20-Zone - 120/240 VAC Line Power (backup battery required)
99420-28	ELT-28-PS	STAR-ELT Transmitter 28-Zone - 120/240 VAC Line Power (backup battery required)
99420-36	ELT-36-PS	STAR-ELT Transmitter 36-Zone - 120/240 VAC Line Power (backup battery required)
99420-44	ELT-44-PS	STAR-ELT Transmitter 44-Zone - 120/240 VAC Line Power (backup battery required)
99420-12-3	ELT-12-PS-3	STAR-ELT 12-Zone, NEMA 3R - 120/240 VAC Line Power (backup battery required)
91420-6	R-6S-C	STAR-ELT Retrofit Kit - Retrofit for STAR 6-Zone Panel
91234	R-8S-C	STAR-ELT Retrofit Kit - Retrofit for 8-Zone Combination Panel (KFRTI-8/S)
Options		
66958	4ZD	4 Zone Disconnect Module
66320	ELT-MMB	STAR-ELT Main Board - Field Replacement Kit
66321	ELT-PS	STAR-ELT 120 VAC Power Supply - Field Replacement Kit
66324	ELT-PSC	STAR-ELT 24 VDC Power Isolation Module - Field Replacement Kit
66322	ELT-08-ZEM	STAR-ELT 8-Zone Expander Board
66328	ELT-IOT	STAR-ELT IoT Interface Board
91722	FM-L	Semi-Flush Kit, Large Enclosure, Red (Can be used with 99420-12, 99420-20, 99420-28, 99420-36, 99420-44)
91722-B	FM-L-B	Semi-Flush Kit, Large Enclosure, Black (Can be used with 99420-12, 99420-20, 99420-28, 99420-36, 99420-44)
91723	FM-S	Semi-Flush Kit, Small Enclosure, Red (Can be used with 99420 & 99421)
91723-B	FM-S-B	Semi-Flush Kit, Small Enclosure, Black (Can be used with 99420 & 99421)
91234, 91234-6	ELT-R	Retrofit Kits for KFRTI-8/8s and STAR 6-Zone legacy transmitters
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).

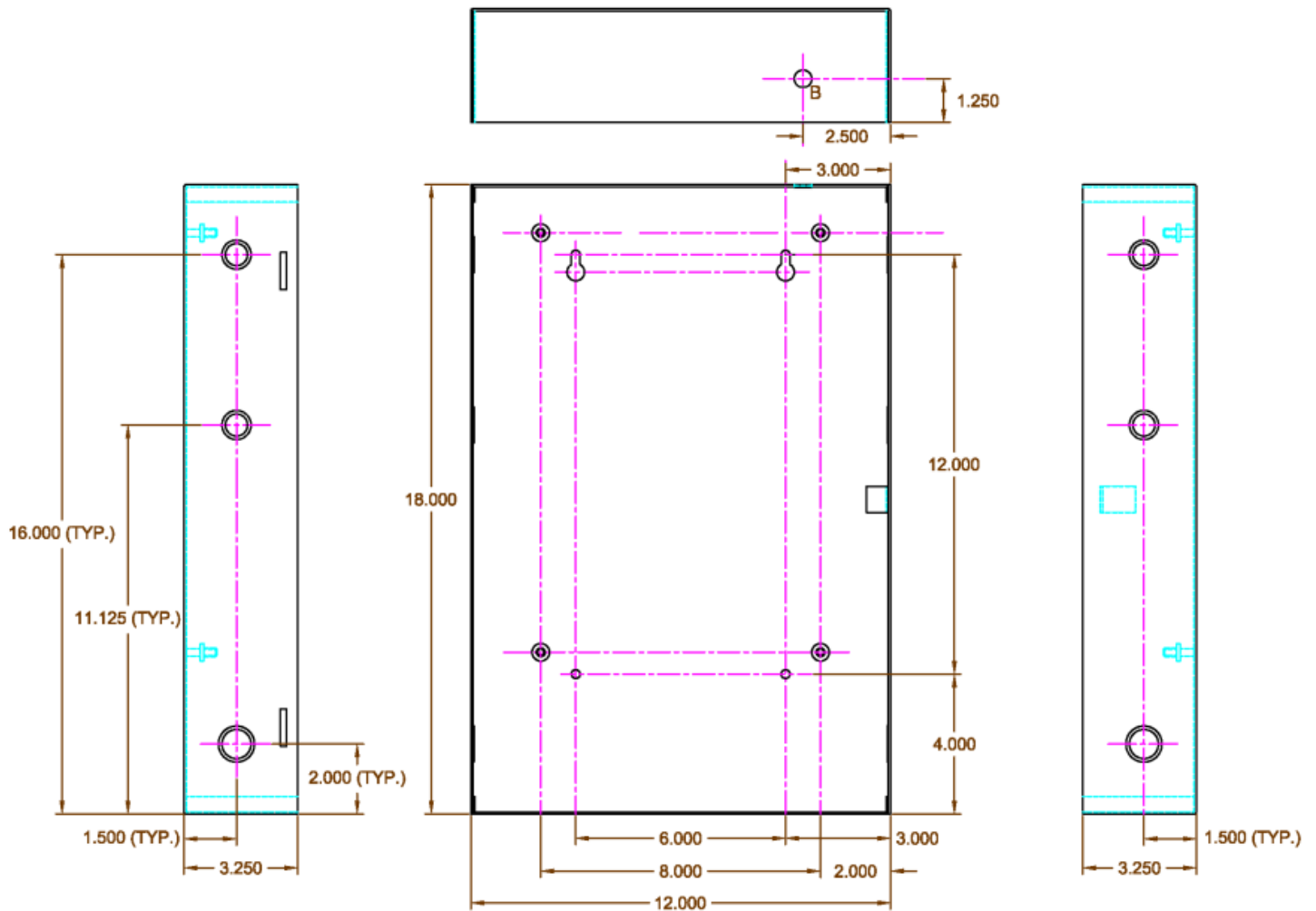
NOTE: Due to continuous development of our products, specifications and offerings are subject to change without notice in accordance with Kingfisher Company, inc., standard terms and conditions



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STAR-ELT Transmitter

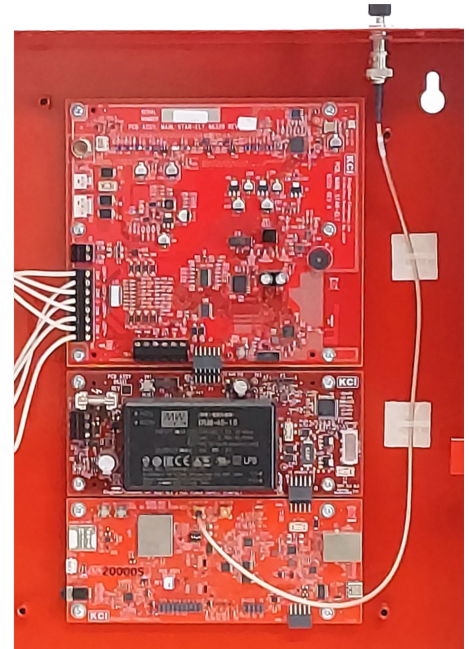
Drawings and Diagrams



STAR-ELT Transmitter with IOT

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, Police, 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
- FCC Certificated, FM Approved
- AC line power with backup battery or 24 VDC power
- Automatic Self-Testing
- Ground fault detection by zone
- Dry contact trouble output relay
- Expandable up to 44-Zones using 8-Zone Expander modules
- IoT Cellular Interface Option
- Optional Dialer Capture module for Contact ID DACT integration



Description:

The **STAR-ELT** 4-Zone Software Defined Radio 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 120 VAC branch circuit or directly from the 24V output of an FM approved FACP or auxiliary power source. Programming is easily accomplished using a Android or iOS mobile device. The **STAR-ELT** supports optional multi-path IoT Interface for enhanced communication and maintenance as well as optional modules to expand the zone count to 44 and support integration with Contact ID compatible DACT communicators.

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 120 VAC line circuit using 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 Expander modules, the zone count can be increased to 44 modules. 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. And optional 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.

99420**STAR-ELT Transmitter with IOT****Specifications:**

Alarm Interface:	
Monitored Dry Contact Inputs:	4 (Up to 44 Zones) (Connected only ONE contact per zone)
Input Termination Resistance:	10 k Ω
Dry Contact Trouble Output:	1 (OPEN when STAR-ELT is in Normal Condition)
Power Sources:	
<u>FACP Powered</u>	
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)
<u>Optional AC Power Supply</u>	
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 @ 60 Hz (Model 99420 only) Maximum-fused at 1amp
<u>Optional Backup Battery</u>	
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
IOT Options:	Cellular, Ethernet, WiFi
Cellular Options:	5G/LTE/4G/3G/2G Multi-Carrier
Environmental:	
Temperature Range (Operational):	0°C-50°C (32°F-122°F)
Temperature Range (Storage):	-20°C-70°C (-4°F-158°F)
Humidity:	<95% non-condensing
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99420-28	ELT-28-PS	STAR-ELT Transmitter 28-Zone - 120 VAC Line Power (backup battery required)
99420-36	ELT-36-PS	STAR-ELT Transmitter 36-Zone - 120 VAC Line Power (backup battery required)
99420-44	ELT-44-PS	STAR-ELT Transmitter 44-Zone - 120 VAC Line Power (backup battery required)
99420-IOT	ELT-IOT	STAR-ELT-IoT Transmitter 4-Zone, IoT - 120 VAC Line Power (backup battery required)
Options		
66320	ELT-MMB	STAR-ELT Main Board - Field Replacement Kit
66321	ELT-PS	STAR-ELT 120 VAC Power Supply - Field Replacement Kit
66324	ELT-PSC	STAR-ELT 24 VDC Power Isolation Module - Field Replacement Kit
66322	ELT-08-ZEM	STAR-ELT 8-Zone Expander Board
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91722-B	FM-L-B	Semi-Flush Trim Kit, Large Enclosure, Black (Can be used with 99420-12, 99420-20, 99420-28, 99420-36 & 99420-44)
91723	FM-S	Semi-Flush Trim Kit, Small Enclosure, Red (Can be used with 99420 & 99421)
91723-B	FM-S-B	Semi-Flush Trim Kit, Small Enclosure, Black (Can be used with 99420 & 99421)
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STAR-ELT Transmitter with IOT

Drawings and Diagrams

