KCi Kingfisher Company, inc.

STAR - ELT
SOFTWARE DEFINED RADIO ALARM TRANSMITTER

FM APPROVED

Features:

- Box Number, Test Time, and Zone parameters are easily field programmed via built-in cordless programming interface
- 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

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.

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. Alarm message formats conform to proprietary Kingfisher messaging 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.

Specifications:

Alarm Interface:

Monitored Dry Contact Input Zones:	4 (Up to 44 Zones) (Connect only ONE contact per zone)
Input Termination Resistance:	10 kΩ
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
IOT Options:	Cellular, Ethernet, WiFi
Cellular Option:	5G / LTE / 4G / 3G / 2G Multi-Carrier

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)
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 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-IOT	STAR-ELT IoT Interface Board
91722	FM-L	Semi-Flush Trim 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 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)
99954	EMB-FM	Flush Mount Kit
97953	FPF	Factory Programmed Frequency—Required at time of order (no charge)
99420-DTS	STAR-ELT-DTS	Specification Data Sheet

Installations:

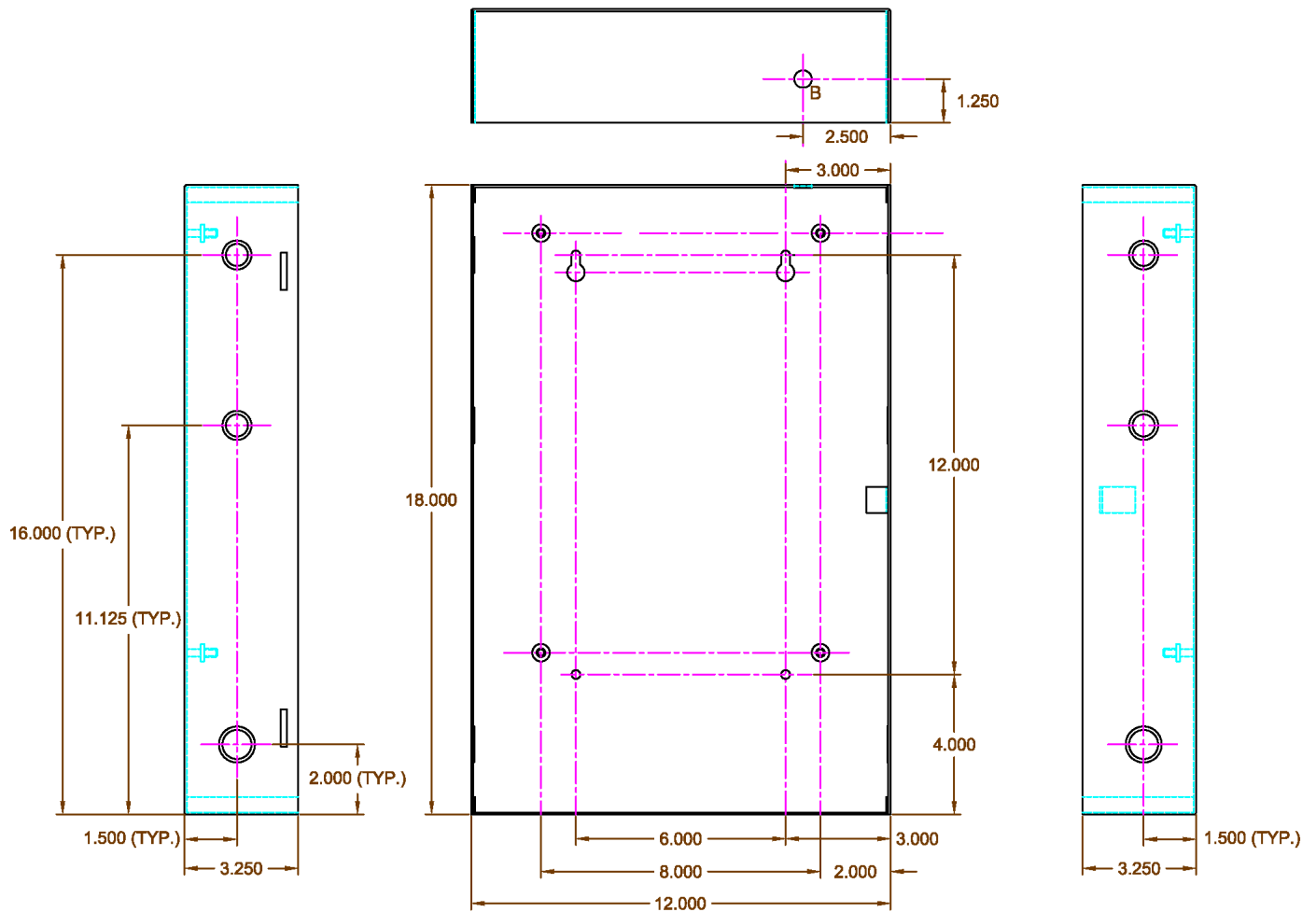- All installations shall comply with the Kingfisher Antenna Installation manual part # 75092

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: