

93 Series - FET System 4 Function with IP Narrow Band Transmitter



SYSTEM PART NUMBER

93204 4 Function Receiver with Master + IP Narrow Band Transmitter

REPLACEMENT TRANSMITTER

93204TX 4 Function IP Narrow Band Transmitter

IP TRANSMITTER SPECIFICATION

| | | | |
|---------------------------|---|----------------------|--------------------------|
| SWITCH - Type | Tactile Dome on PCB Keypad | | |
| BATTERY - Type | 4 x AAA Alkaline Manganese in holder (6 Volts) | | |
| INDICATOR | | | |
| Type | 1 x Red LED | | |
| Off | Transmitter OFF (The STOP Button has been pressed and released) | | |
| Slow flash | Transmitter ON and ready for use (The SET Button has been pressed and released) | | |
| On | Transmitting (A STOP, SET or Function Button is being pressed) | | |
| Fast flash | Transmitting – Indication that the battery will need replacing soon | | |
| CURRENT DRAW | | | |
| Quiescent | 15 micro amps | | |
| Operating | 24 milliamps | | |
| PROTECTION | | | |
| Reverse polarity | Protected | | |
| IP Rating | 67 | | |
| Registration codes | Over 16 million | | |
| PERFORMANCE | | | |
| Temp Range | -10° C to + 40° C (13° F to + 104° F) | | |
| Range Nominal as supplied | 300 metres (1000 ft) from the Receiver, when driving a momentary output without signal drop out | | |
| Transmitted power | 10mW Typical | | |
| COMPLIANCE | | | |
| EMC | 2004/104/EEC | Exceeds ETSI 300 220 | Compliant E11 10R-037601 |
| Modulation | FM | | |
| Frequencies | 434 MHz Band, 15 Frequencies | | |

System Contents

- 1x Transmitter with batteries
- 1x Lanyard
- 1x Receiver with wiring harness and glands
- 1x Instructions

System shown: 93204 with optional cradle

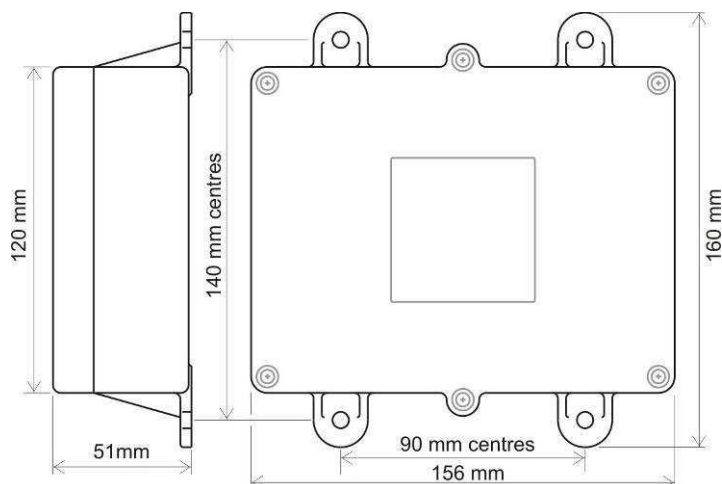
RECEIVER SPECIFICATION

| | | |
|---|--|---|
| SWITCH TYPE | | |
| Output Switching | MOS Field Effect Transistor (P Channel Power MOSFET) | |
| SUPPLY VOLTS | | |
| Nominal | 12/24 Volts DC | |
| Absolute Maximum | 40 Volts DC | |
| Minimum | 8 Volts DC | |
| Output Switch Supply | Internal 12/24 Volts | |
| AMPS | | |
| FET Rating | 15 Amps | |
| System Rating | 15 Amps | |
| Quiescent Current | 25mA on Standby (Not SET) | |
| Overload Protection | 15 Amps (Auto Shutdown) | |
| AERIAL | | |
| Internal Antenna | Yes | Supplied and fitted |
| External Antenna | Optional | See Accessories. |
| OUTPUTS | | |
| Master | 1 | Can be Parallel or Continuous. Not all models – see Build Specification Table. |
| Function | 4/5 | |
| Master (Secondary) | 1 | Continuous. Not all models, see Build Specification Table. |
| CONFIGURATION | | |
| RS232 Programming to users requirements | Yes | Not all models, see Build Specification Table. For programming interlocks, push/push latch, parallel master inhibit, timeout, channel timeout delay, master on delay, radio button de-latching and output allocation. |
| PERFORMANCE | | |
| Simultaneous Outputs | Yes | With horizontal interlocks (Interlocks are programmable – see CONFIGURATION above) |
| Instant TX response | Yes | No perceivable delay between TX operation and RX action |
| DIAGNOSTICS | | |
| LED's | Yes | Confirm 5 Volts, SET, Fault and all Outputs. |
| PROTECTION | | |
| ESR Safety | Yes | See ESR Safety document. |
| Back EMF | Yes | Diode protected on all outputs |
| Registration codes | | Over 16 million |
| STOP Connection | Yes | Internal Emergency Stop Connection, Not all models, see Build Specification Table. |
| WIRING | | |
| Wiring Loom | Yes | 3 metres (10ft) supplied and fitted |
| Cable Gland | Yes | Supplied and fitted |
| Connections | | Screw terminal into plug and socket on PCB, for easy "swap out" |

DIMENSIONS

ENCLOSURE

| | |
|-----------|---|
| Weight | 0.3 lbs (335gms) |
| Lid | Clear PVC - to view LEDs |
| Base | Black PVC |
| Breather | Gortex fitted in base |
| Mounting | 4 external lugs |
| Fixings | 5mm (3/16") not supplied |
| IP Rating | Performs to IP67 standard (0.5 metre water for 1 hour) |



ACCESSORIES

9861, 9862, 9863 and 9869 – External Antenna with cable.

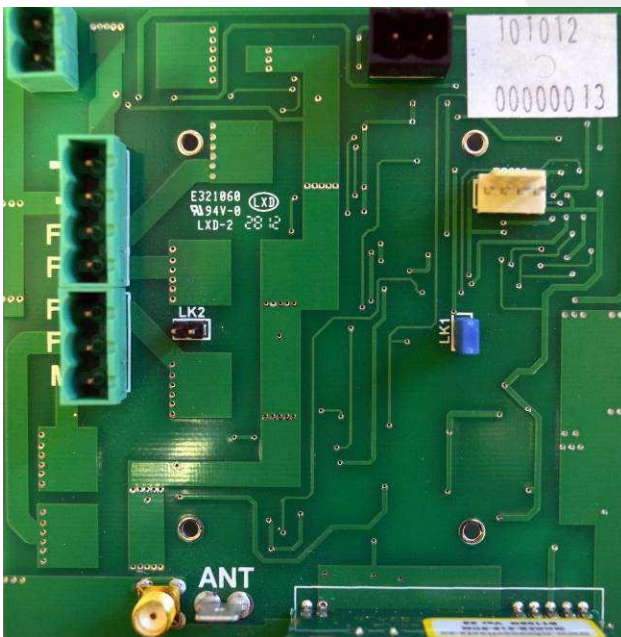
| 93 Series | | | 93 2 00 | 93 2 02 | 93 2 03 | 93 2 04 | 93 5 05 |
|--|-----------|-------------------------------|---------|---------|---------|---------|---------|
| BUILD SPECIFICATION TABLE FOR MODELS IN THIS RANGE | | | | | | | |
| Ident | Legend | Connection | | | | | |
| | + - F1 F2 | Positive, Negative, F1 and F2 | S | S | S | S | S |
| | F3 F4 M | F3, F4, and Master | | M | F3 | S | S |
| | ST - | STOP and - | | S | S | S | S |
| | S+ S- | S+ S- | | S | S | S | S |
| | ANT | Internal Antenna | S | S | S | S | S |
| | SMA | Connector (external antenna) | | S | S | S | S |
| LK1 | P | Master - Parallel | | C | | C | |
| LK2 | C | Master – Continuous | | C | | C | |
| LK3 | RS232 | RS232 | | S | S | S | S |
| | | 3 metres 4 core | S | | | | |
| | | 3 metres 7 core | | S | S | S | S |

S = Standard. M = Standard but Master only connected. C = Customer configured (see "Factory Settings").

| | |
|------------------|--|
| + | Positive 12/24 Volt supply |
| - | Negative 0 Volts |
| F1, F2, F3 & F4 | Outputs to F1 through F4 |
| M | Master Output |
| STOP - | STOP, when grounded shuts down the Receiver |
| S+ S- | Master Secondary for Safety solenoid connections etc. |
| ANT | Blade connector for internal antenna |
| SMA | Aerial connection for optional external antenna (internal antenna must be removed) |
| LK1 | Jumper fitted to this link for continuous Master |
| LK2 | Jumper fitted to this link for parallel Master |
| Factory Settings | 418MHz configured Parallel, 433.92MHz configured Continuous |
| LK3 | RS232 for interface to access special programmes Also for connection to RS232 modules |

Photo of PCB

Connector Side



Component Side

