

93 Series - FET Systems - FM - 6 Function with IP Transmitter

SYSTEM PART NUMBERS

93 2 06 6 Function Receiver with Master + 6 Function IP Narrow Band Transmitter

SPECIAL ORDER

93 2 07 7 Function Receiver + 10 Function IP Narrow Band Transmitter

REPLACEMENT TRANSMITTERS

93 2 06TX 6 Function IP Narrow Band Transmitter

93 2 10TX 10 Function IP Narrow Band Transmitter



SYSTEM CONTENTS

- 1 x IP Transmitter
- 1 x Lanyard
- 1 x Receiver and Wiring Harness with Glands
- 1 x Instructions

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 Drawn	
Quiescent	15 micro amps
Operating	25 milliamps
PROTECTION	
Reverse polarity	Protected
IP Rating	67
Conformal coating	No
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
Modulation	FM
Frequencies	434 MHz Band, 15 Frequencies

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 25 mA 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 Parallel or Continuous
 Function 6
 Master (Secondary) 1 Continuous

CONFIGURATION

RS232 Programming to users requirements Yes

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

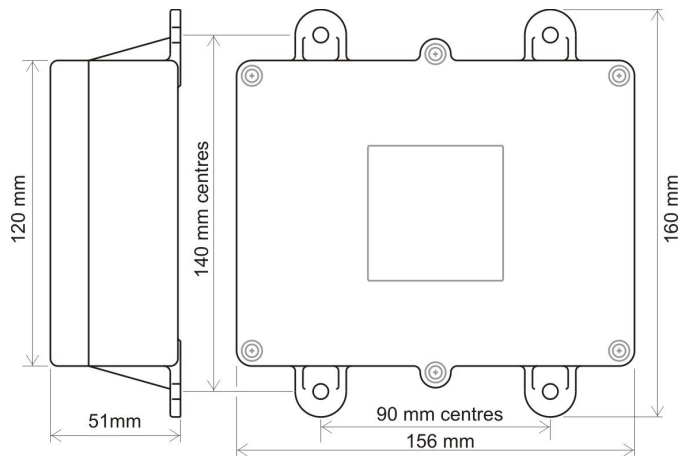
ESR Safety Yes See ESR Safety document.
 Reverse Polarity Yes Protected (with provisions)
 Back EMF Yes Diode protected on all outputs
 Conformal Coating Yes
 Registration codes Over 16 million
 STOP Connection Yes Internal Emergency Stop Connection

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”

ENCLOSURE

Weight 0.3 lbs (335gms)
 Lid Smoke 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 06	93 2 07
BUILD SPECIFICATION TABLE FOR MODELS IN THIS RANGE				
Ident	Legend	Connection		
	+ - F1 F2	Positive, Negative, F1 and F2	S	S
	F3 F4 F5 F6 M	F3, F4, F5, F6 and Master	S	S
	ST -	STOP and -	S	S
	S+ S-	S+ S-	S	S
	ANT	Internal Antenna	S	S
X5		SMA Connector (external antenna)	S	S
LK1	P	Master - Parallel	C	F7
LK2	C	Master – Continuous	C	
LK3	RS232	RS232	S	S
		3 metres 2 core	S	S
		3 metres 7 core	S	S

S = Standard. C = Customer configured (see "Factory Settings").

+
-
F1, F2, F3, F4, F5 & F6
M

Positive 12/24 Volt supply
Negative 0 Volts
Outputs to F1 through F6
Master Output

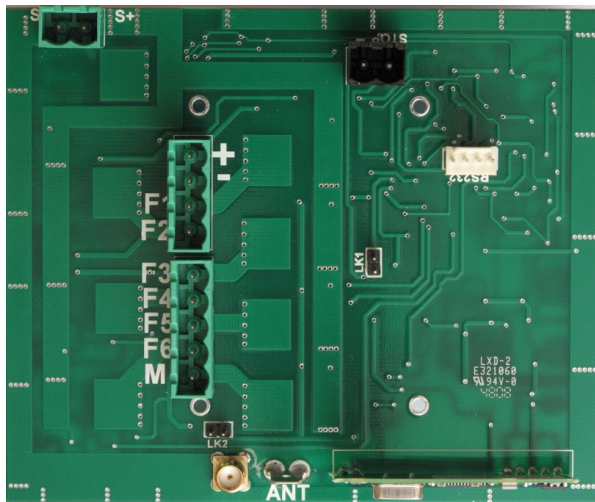
STOP -
S+ S-
ANT
SMA

STOP, when grounded shuts down the Receiver
Master Secondary for Safety solenoid connections etc.
Blade connector for internal antenna
Aerial connection for optional external antenna (internal antenna must be removed)

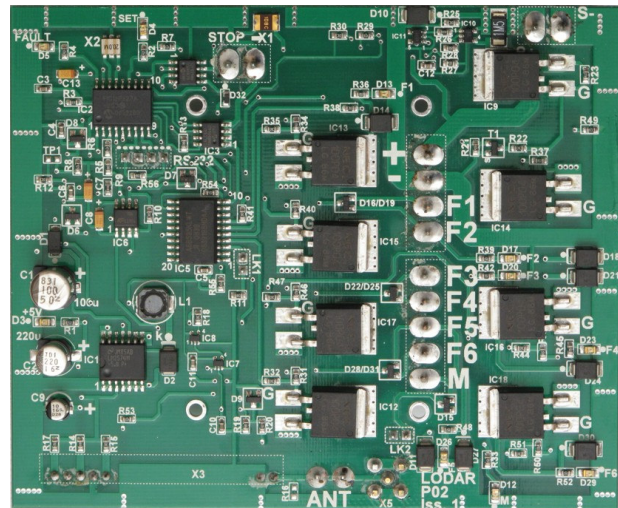
LK1
LK2
Factory Settings
LK3

Jumper fitted to this link for continuous Master
Jumper fitted to this link for parallel Master
418MHz configured Parallel, 433.92MHz configured Continuous
RS232 for interface to access special programmes
Also for connection to RS232 modules

PCB – Not to scale



Connector Side



Component Side