

90002 - 2 Function & Master with Mini Transmitter

90 Series - Relay System with Master

SYSTEM PART NUMBER

90002 2 Function Receiver with Master + 2 Function Mini Transmitter

SPECIAL ORDER

90003 3 Function Receiver + 4 Function Mini Transmitter

REPLACEMENT TRANSMITTER

90002TX 2 Function Mini Transmitter

CONTENTS

1 x Receiver
1 x Mini Transmitter
1 x Lanyard
1 x Instructions



MINI TRANSMITTER SPECIFICATION

SWITCH

Type Rubber membrane with carbon contact

BATTERY

Type 3 Volts (2 x AAA)

CURRENT DRAW

Quiescent 4 micro amps
Operating 20 milliamps

PROTECTION

Reverse polarity Protected
IP Rating 65
Registration codes Over 16 million

PERFORMANCE

Temp Range -10° C to + 40° C (13° F to + 104° F)
Range Nominal as supplied 45 metres (150 ft) from the Receiver, when driving a momentary output without signal drop out
Transmitted power 1 mW Typical

COMPLIANCE

EMC	Exceeds ETSI 300 220.	Compliant E11 10R-037601
Modulation	FM	
Frequencies	418.00 MHz F1D 433.92 MHz F1D	USA (optional UK) World wide (optional USA)

RECEIVER SPECIFICATION

SWITCH TYPE

Output Switching Relay

SUPPLY VOLTS

Nominal 12/24 Volts DC
 Absolute Maximum 40 Volts DC
 Minimum 8 Volts DC
 Output Switch Supply Internal 12/24 Volts or external up to 80 Volts DC max
 External requires optional connector (see Accessories Part 9011)

AMPS

Relay Rating 5 Amps
 System Output Rating 8 Amps
 Quiescent Current 25 mA on Standby (Not Set)
 Overload Protection None

AERIAL

Internal Antenna Yes Supplied and fitted
 External Antenna Optional Receiver must be ordered with SMA connector (see Accessories Part 9010).

OUTPUTS

Master 1 Can be Parallel or Continuous (Not all models – see Build Specification Table)
 Functions 2

CONFIGURATION

RS232 programming Optional Receiver must be ordered with RS232 connector (see Accessories Part 9011) for programming to user requirements; interlocks, push/push latch, parallel master inhibit, timeout, channel timeout delay, master output delay etc.

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

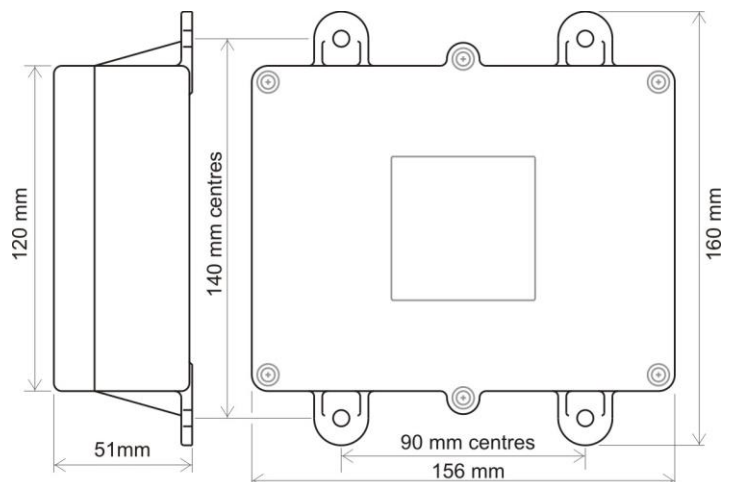
ESR Safety Yes See ESR Safety document.
 Back EMF Yes Diode protected on all outputs
 Registration codes Yes Over 16 million
 STOP Connection Optional External Emergency STOP connector (see Accessories Part 9011).

WIRING

Wiring Loom Yes 3.00 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 Black PVC
 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.
 9010 – SMA Connector, for external aerial
 9011 – ST, S+ & S- connector and RS232 connector

90 Series			90000	90002	90004	90100	90102	90104
BUILD SPECIFICATION TABLE FOR MODELS IN THIS RANGE								
Ident	Legend	Connection						
X1	+ - F1 F2	Positive, Negative, F1 and F2	S	S	S	S	S	S
X2	F3 F4 M	F3, F4, and Master		M	S		M	S
X3	ST Vs- Vs+	STOP and Vs- Vs+	O	O	O	O	O	O
X4	ANT	Internal Antenna	S	S	S	S	S	S
X5		SMA (external antenna)	O	O	O	O	O	O
LK1		Master (configuration)		C	C		C	C
LK2		RS232	O	O	O	O	O	O
LK3		RS232	O	O	O	O	O	O
LK4		Safety (parallel master)		C	C		C	C
		3 metre (10ft) 4 core cable	S			S		
		3 metre (10ft) 7 core cable		S	S		S	S
		9801 Lo-Cover				S	S	S

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

- + Positive 12/24 Volt supply
- Negative 0 Volts
- F1, F2, F3, F4 Outputs F1 to F4
- M Master Output

- ST STOP - grounding shuts down the Receiver
- Vs- Vs+ 12/24 Volt supply for control circuits
(used when link is broken to allow switching of DC Voltages outside normal operating limits)

- ANT Blade Connector for Internal Antenna
- SMA Aerial Connection for External Antenna (Internal Antenna must be removed)

- LK1 Master Selection by jumper (AP = Parallel, AM = Continuous)
- Factory Settings 418MHz configured Parallel, 433.92MHz configured Continuous
- LK2 RS232 for programming
- LK3 RS232 for interface with other RS232 modules
- LK4 Connected when using Parallel Master, connects safety circuit

Photo of PCB 4 Function

