



12 Function PWM Receiver

RECEIVER PART NUMBER

33RX12 12 Function PWM Receiver

Compatible Transmitter

TX2016 16 Function IP Transmitter

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TRANSMITTER SPECIFICATION - See TX2016

RECEIVER SPECIFICATION

ELECTRICAL

Voltage Nominal	12/24 volts
Voltage Min/Max	9 to 32 volts
Connection - Case	Deutsch HDP24 24-31-PE Receptacle with pins
Connection - Harness	Deutsch HDP26 24-31-SE Plug with sockets
Switch Type	MOS Field Effect Transistor (MOSFET)
Function Current – max	1,2 or 3 Amps selectable
System Current – max.	15 amps.
Functions	12

RF

Modulation	2-GFSK. Gaussian Frequency Shift Keying
Frequency	433.050 MHz to 434.790 MHz
Channels	32
Channel Selection	Fixed
Technology	Fixed Receiver
Temperature Range	-30deg.C to 85deg.C
Range	60m (200ft)
Range max.	300m (1000ft) in open ground
Registration Codes	Over 16 million

CURRENT CAPACITY

FET Rating	10A
System Rating	10A
Quiescent Current	65mA on Standby (Not SET)
RF Radiated Power	0dBm

PWM INFORMATION AND ADJUSTMENTS

Frequency	5000 hz
Threshold	Adjustable
Top Limit	Adjustable
Dither Frequency	10 – 200Hz
Dither Amplitude	0 – 20%
Ramp up time – max	100 – 5000 milliseconds
Ramp down time – max	100 – 5000 milliseconds
Flow Control Adjustment	Yes – Requires dedicated TX buttons
Flow Control Start Level	Adjustable between threshold and top limit

AERIAL

Internal Antenna	Yes	Supplied and fitted
External Antenna	Optional	AC9860/ AC9861/ AC9862/ AC9863 & AC9869 – order separately

CONFIGURATION

Operating System	Lodar Script
Functions	Momentary with Horizontal Interlocks
Master Output	Parallel – Continuous optional

PERFORMANCE

Simultaneous Outputs	Yes	Programable (Modify through configuration)
Instant TX response	Yes	Programable (Modify through configuration)

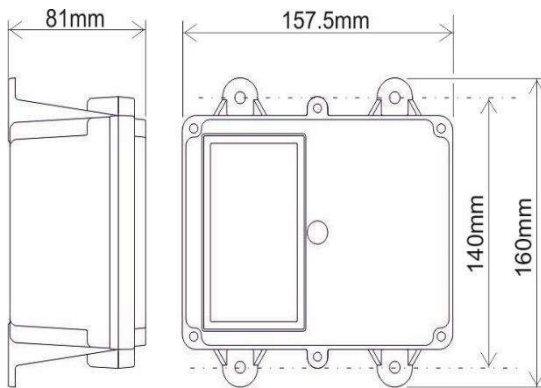
DIAGNOSTICS

Fault Code	Yes	LED
Receive Indication	Yes	LED
Out of Range Indication	Yes	

SAFETY & PROTECTION

Back EMF	Yes – protection diodes
Reverse Polarity	Yes
System Monitoring	Yes – using a secondary processor
Transient Voltage	Yes – TVS Diode 30.8 volts. 10amp fuse recommended
Auto Off - TX out of range	Better than 500 milliseconds
Overload	Yes – by temperature sensor

ENCLOSURE



Material Lid	Clear PVC lid - to view LEDs
Base	Black Polycarbonate
Dimensions	187 x 140 x 80mm (7.36 x 5.50 x 3.15 ins.)
Weight	290 gms
Breather	Gortex membrane
IP Rating	IP66
Functional Identification	LED though clear lid
Mounting	4 external lugs
Fixings	5mm (3/16") - not supplied

33 Series			33RX04
BUILD SPECIFICATION TABLE FOR MODELS IN THIS RANGE			
Ident	Legend	Connection	
CN1	+, -, S+, M	Positive, Negative, Safety, Master	S
CN21	CH1, COM, CH2	F1, Common Ground, F2	S
CN22	CH3, COM, CH4	F3, Common Ground, F4	S
CN23	CH5, COM, CH6	F5, Common Ground, F6	S
CN24	CH7, COM, CH8	F7, Common Ground, F8	S
CN25	CH9, COM, CH10	F9, Common Ground, F10	S
CN26	CH11, COM, CH12	F11, Common Ground, F12	S
CN2	Config	PC Config	S
CN3	RS232	RS232 Expansion	S
CN5	ANT	SMA (External Antenna)	
CN6		Internal Antenna	S

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

- + Positive 8-36V supply
- Negative 0 Volts
- CH1-12 Outputs to F1 through F12
- 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)
- Factory Settings 418/915MHz configured Parallel, 433.92MHz configured Continuous
- RS232 RS232 for Wired Remote and interface to access special programmes

COMPLIANCE

- FCC FCC CFR 47 Part 15.109
433.050MHz to 434.790MHz
FCC CFR 47 Part 15.109
902.025MHz to 927.975MHz
- IC ICES-003 Issue 6.
433.050MHz to 434.790MHz
ICES-003 Issue 6.
902.025MHz to 927.975MHz
- RoHS Directive 2011/65/EU