

Wireless Potentiometer Transmitter Module



Product Features

- Simple wireless configure and calibration
- Wireless range up to 800 m (2,600 ft)
- Low power mode for long battery life
- Miniature PCB for OEM integration
- Free Visualisation software



Introduction

The WLW-RA transmitter module connects to resistive sensors such as linear and rotary potentiometers, position and displacement sensors and forms part of the WLW modular telemetry system. The data transmitted by the WLW-RA can be received by multiple WLW receivers that include displays, handheld readers, analogue outputs, relay modules and computer interfaces.

WLW transmitters have been designed for battery operation and support an ultra low-power sleep mode whilst offering class leading wireless coverage and range. Configurable transmission rates from once per day to 200 per second to cope with a wide range of measurement and monitoring applications. A choice of enclosures enabling battery connection, field connectivity and environmental sealing up to IP67 ensure these modules provide a flexible solution to your wireless sensor requirements.

This transmitter is highly accurate, low noise and uses up to nine point linearisation giving quality measurements from a wide range of potentiometer type transducers.

WLW System Overview



WLW Wireless Telemetry Sensor System is a modular wireless solution for industrial sensor applications.

High accuracy, high quality measurement is interfaced with simple yet powerful configuration and monitoring software.

Specification

Measurement Specifications	
Input range	500 to 100,000 Ω
Sensorexcitation voltage	2.5 Vdc
Offset temperature stability (max)	0.5 ppm/°C
Gain temperature stability (max)	50 ppm/°C
Accuracy	0.01% of FR
Non linearity before linearization (max)	25ppm of FR
Internal resolution/Bits	16,000,000/ 24
Noise free resolution/ Bits at 1 sample per second	TBC
Transmission rates	From 5ms to 1 day

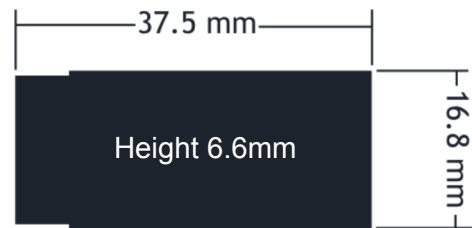
Battery Life	
Transmitting results at 3 per second , no excitation required	
Pair AA cells constantly on	1 month
Pair AA cells 12 sessionsper day of 5 mins	2 years
Pair DD cells constantly on	4.5 months
Pair DD cells 12 sessionsper day of 5 mins	>9 years

Power Supply	
ACMi and OEM module	2.1 to 3.6 Vdc
ACM	5 to 18 Vdc

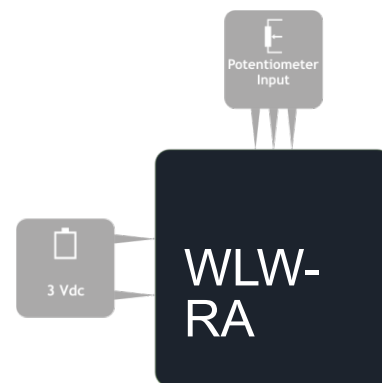
Radio	
Radio type	Licence exempt transceiver
Radio frequency	2.4 GHz
Transmit power	10 mW
Range	Up to 800 m

Environmental	
Operating temperature range	-20 to 55 °C
Storage temperature range (no batteries)	-40 to 85 °C
Maximum humidity	95% non-condensing
IP rating (ACM and ACMi)	IP67/Nema4

Mechanical



Electrical



Order Codes

WLW-RAe

Wireless potentiometer OEM transmitter module for external antenna

WLW-RAi

Wireless potentiometer OEM transmitter module with antenna

WLW-ACM-RA

Wireless potentiometer transmitter module in IP67 enclosure supporting two D batteries or external power supply.

WLW-ACMi-RA

Wireless potentiometer transmitter module in IP67 enclosure for two AA batteries

WLW-ACMm-RA

Wireless potentiometer transmitter module in miniature IP50 enclosure

Enclosure	ACM	ACMi	ACMm				
Wireless range / m	800 m (2,600 ft)		500 m (1,600 ft)				
Power supply	3-18 Vdc or 2xD cell	3 Vdc (2xAA)	3 Vdc (2xAAA with BB1)				
Battery life at 1 transmission per second*	1 year	5 months	2 months				
Antenna	ANTA	ANTA	PCBPrinted				
Radio frequency	2.4 GHz						
Operating temperature /°C	-20 to +55	-20 to +55	-40 to +80				
Environmental protection	IP67		IP50				
Module size/ mm	164 x 84 x 57	80 x 62 x 34	76 x 35 x 20				
Software & configuration	WLW Toolkit & WLWCAPTURE						
Input modules (determined by order code)	SA Strain SAf Strain(2kHz) IA Current VA Voltage TA Temperature PA Pulse RA Potentiometer						
Order codes:	WLW-ACM-SA WLW-ACMi-SA WLW-ACMm-SA	WLW-ACM-SAf WLW-ACMi-SAf WLW-ACMm-SAf	WLW-ACM-IA WLW-ACMi-IA WLW-ACMm-IA	WLW-ACM-VA WLW-ACMi-VA WLW-ACMm-VA	WLW-ACM-TA WLW-ACMi-TA WLW-ACMm-TA	WLW-ACM-SA WLW-ACMi-SA WLW-ACMm-SA	WLW-ACM-RA WLW-ACMi-RA WLW-ACMm-RA