

Transmitter



Signal Tower LME Transmitter

WDT-6M-Z2

Open Price

Corresponding Model
#1
LME Series

Current Consumption
35mA

Maximum Links
#2
30units¹

Transmission Distance
#2
30m



Signal Tower LE Transmitter

WDT-5E-Z2

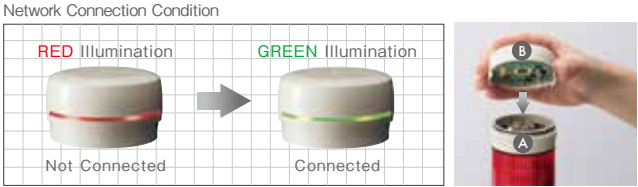
Open Price

Corresponding Model
#1
LE Series

Current Consumption
20mA

Maximum Links
#2
30units¹

Transmission Distance
#2
30m



Transmitter Installation

Affix the transmitter adaptor ❶ on the Signal Tower and fasten it with the center screw. Then simply attach the transmitter ❷ to the bracket. (Some applications don't require additional wiring.)

Receiver



Stationary Receiver

WDR-LE-Z2

Open Price

Connection Type
#2
LAN/USB

Current Consumption
#2
65mA

Multiple Units
#2

❶ The radio reception depends on the environment and installed location. 20 units represents the recommended number of links.

❷ Multiple LAN connections can be simultaneously linked. (Please inquire for more details)

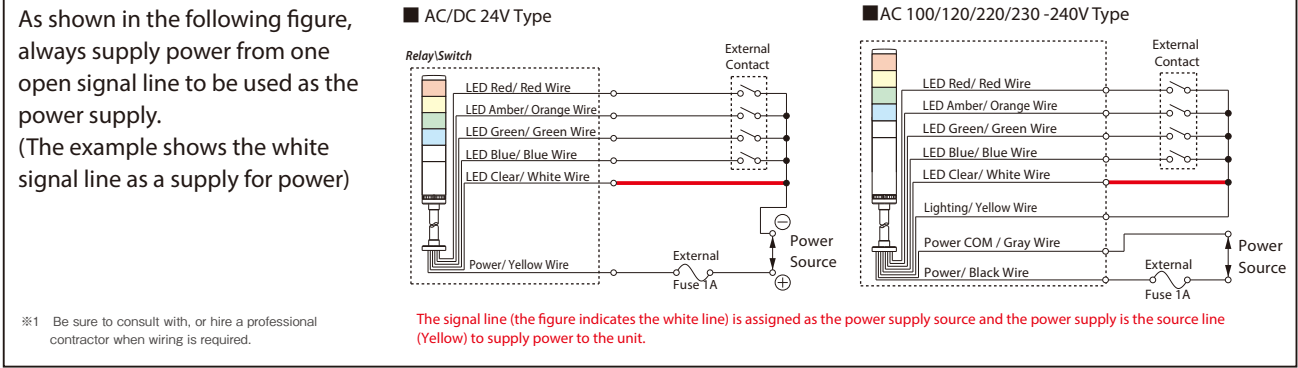
General Specifications

Item	Specifications	
Model Name	WDT-6M-Z2	WDT-5E-Z2
Corresponding Signal Tower	LME Series	LE Series
Rated Voltage	DC24V (Non-polar)	
Operating Voltage Range	DC21.6V - DC26.4V	
Current Consumption	20mA ±10mA	
Operating Temperature Range	-10 to 60°C	
Relative Humidity	RH 85% or less (No Condensation)	
Storage Temperature Range	-20 to 70°C (No Freezing)	
Mounting Direction (Indoor Only)	Upright Only	
Protection Rating	Conforms to installed Signal Tower	
Mass	52g±5g	

Wireless Specification

Item	Specifications
Wireless Communication Standard	IEEE 802.15.4
Wireless Communication Frequency	2405MHz - 2480MHz (16 Channels)
Wireless Transmission Method	Direct Spread (DS-SS ^{*1}) System
Wireless Transmission Standard	ZigBee2007 Conformity ZigbeePRO Stack Loading (Unique Profile Implementation)
Wireless Transmission Speed	Maximum Theoretical Speed of 250k-bps*2
Wireless Transmission Output	Maximum 3 mW (From Antenna Source)
Radio Frequency Range*3	Direct Sight of about 60m (Reference Value)
Number of Relays	Maximum 30 Relays
Compliances	North America: FCC, UL (For WDT) Europe: RoHS, CE Japan: Radio law, Electrical Appliance and Material Safety Law (WDR-LE-Z2)

Wiring Diagram



General Specifications

Item	Specifications
Model Name	WDR-LE-Z2
Rated Voltage	DC24V (AC Adaptor Included *)
Operating Voltage Range	DC21.6V - DC26.4V
Current Consumption	65mA ±15mA
AC Adaptor Rating *	AC100V
AC Adaptor Voltage Tolerance *	AC90V - AC110V
Operating Temperature Range	-10 - 60°C 0 - 40°C (When AC Adaptor is used)
Relative Humidity	No more than 85% RH (No condensation)
Storage Temperature Range	-20 - 70°C -10 - 70°C (When AC Adaptor is used) (No Freezing)
Mounting Direction (Indoor Only)	Upright (Wall Mount) or Sideways (Level Surface Mounting) for Indoors Only
Protection Rating	IP20
Mass	170g ±10g

Function

Item	Specifications
Model Name	WDR-LE-Z2
Transmission	ETHERNET 10BASE-T/100BASE-TX (Full/Half Duplex)
Specifications	USB1.1/USB2.0 (Supports Full-speed) * Not supported for USB Hub connections
Output Specification	Non-voltage Contact: 1 Output (DC24V 500mA) Connection

- *1 : DS-SS = Direct Sequence-Spread Spectrum
- *2 : The radio transmission is dependent upon the environment and installed location.
- *3 : The radio transmission is dependent upon the environment, installed location and number of communications.

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CAUTION

To ensure correct use of these products, read the "Instruction Manual" prior to use. Failure to follow all safeguards can result in fire, electric shock, or other accidents. Specifications are subject to change without notice.



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WD-Z2
Wireless Data Acquisition System

www.patlite.com

Just attach it to a Signal Tower!!
It transfers information wirelessly!!

* Easy attachment only requires the removal of the Signal-Tower top cap and fixing screw and re-assembly of it. Power is supplied by one of the unused signal wires for the transmitter.

Signal Tower + WD = Wireless Communication

For easy attachment, just remove the Signal-Tower top cap and fixing screw and re-assemble it with the adaptor.

For LME Model Only
WDT-6M-Z2

Wireless Transmission

Security Communications

Receiver
WDR-LE-Z2

Can store logged data!!
Add communication to the factory floor!

Saves data automatically as CSV

Signal Tower

ANDON Monitoring Software (plus Viewer Software)
WDS-AS1 (+Viewer)

Increases Manufacturing Efficiency!

Improve the environment with data results!
Operations Monitor
Production Monitor

ANDON Monitoring Software
Monitor information from all equipment anywhere inside the factory

Problem

New equipment, old equipment, and various manufactured equipment is intermingled, making the total system configuration difficult.

Solution

Just by attaching to a Signal Tower, data can be collected from all of the equipment. This makes system configuration simple.

* Easy attachment only requires the removal of the Signal-Tower top cap and fixing screw and re-assembly of it. Power is supplied by one of the unused signal wires for the transmitter.

Wireless Communications System

Multihopping wireless networking for accurate and reliable communication

The transmitted data mutually selects the best route for radio wave communication. Even with modifications of the floor layout, data communication starts automatically from power-up. Multi-hop mesh network communication is flexible enough to respond to the circumstances of radio communication.

Wireless Network - - - Stable Wireless Route - - - Unstable Wireless Route - - -

AutomaticRouting function selects optimum communication

This product doesn't need complicated wireless or network settings, the automatic selection for a good route to carry data communication is done as soon as the power source is connected. In addition, when an obstacle impairs the data transmission of the wireless communication, the transmitter automatically searches for a different route to re-connect.

ANDON Monitoring Software (plus Viewer Software)
WDS-AS1 (+Viewer) Free Software!!

Monitor information from all equipment anywhere in the factory.

Model WDT Transmitter
Machine 1
Machine 2
Machine 3

Wireless Transmission

Model WDR Receiver

Ethernet (LAN)

WDS-AS1 ANDON Monitor

Viewer 1
Viewer 2
Viewer 3

Up to 10 Monitors can be connected via LAN Hub or Wireless/LAN Router

- Interfacing the WDS-AS1 Monitor Software is easy to set up to get all the information of signal towers.
- Focus on the important data from the factory lines.

Problem

The actual production and progress ratio needs to be calculated, but the introductory price of a new acquisition system is high.

Solution

A new system introduction for wireless communication is available at a lower cost.

Problem

Information needs to be gathered for a factory line, but it involves time and immensive expenses.

Solution

Layout changes with extensive re-wiring work for equipment can be omitted with the use of wireless.

* Prior to use, it is recommended to scan electrical waves to determine noise generation and required channels for a machine layout.