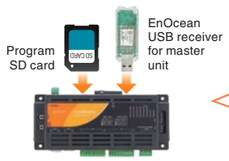
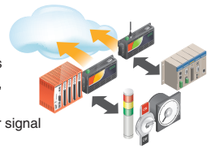
Vast selection of Master Units (Sold Separately)

Selection is possible from CONTEC's M2M Controller Series or Gateway Series of master units.
(Excludes models whose interface does not include USB and SD card slots.)



CONPROSYS main unit (sold separately)

Equipped with useful applications required for IoT devices, this master unit enables data to be collected, sent, stored, and visualized from various types of sensors, controllers, PLCs, and CNCs, while also enabling system expansion beyond just providing IoT connectivity for signal towers.



Supported Model List (Partial. Full model list is in CONPROSYS Brochure.)

Series		M2M Controller series				Gateway series		
Type		Integrated Type			Configurable Type	Integrated Type		
Product Name		Multi I/O	Multi I/O with additional RS-485	Digital I/O with RS-232C	Controller	PLC data logger + Multi I/O	PLC data logger + Multi I/O with built-in OPC UA server and MTConnect Adapter & Agent	PLC data logger + Multi I/O with 4G/3G WAN*3*4 built-in OPC UA server and MTConnect Adapter & Agent
Model		CPS-MC341-ADSC1-111	CPS-MC341-ADSC2-111	CPS-MC341-DS11-111	CPS-MCS341-DS1-111	CPS-MG341-ADSC1-111	CPS-MG341-ADSC1-931	CPS-MG341G5-ADSC1-931
Interfaces	LAN	2ch	2ch	2ch	2ch	2ch	2ch*7	2ch*7
	SD Card Slot	1 Slot	1 Slot	1 Slot	1 Slot	1 Slot	1 Slot	1 Slot
	USB	1ch	1ch	1ch	1ch	1ch	1ch	1ch
	Digital Input	4ch*1	4ch*1	8ch*6	4ch*1	4ch*1	4ch*5	4ch*5
	Digital Output	2ch	2ch	8ch	4ch*2	2ch	2ch	2ch
	Analog Input (Current)	2ch	2ch	-	-	2ch	2ch	2ch
	Counter	2ch*2	2ch*2	-	-	2ch*2	2ch*2	2ch*2
	RS-422A/485	1ch	2ch	-	-	1ch	1ch	1ch
	RS-232C	1ch	1ch	1ch	1ch	1ch	1ch	1ch
	4G/3G SIM (Standard)	-	-	-	-	-	-	1 Slot
Functions	Data Transmission	○	○	○	○	○	○	○
	OPC UA Server	-	-	-	-	-	○	○
	MTConnect	-	-	-	-	-	○*8	○*8
	Signal I/O	○	○	○	○	○	○	○
	4G/3G	-	-	-	-	-	-	○
	Modbus Master	-	-	-	-	○	○	○
	Modbus Slave	○	○	○	○	○	○	○
	PLC Master	-	-	-	-	○	○	○
	HMI	○	○	○	○	○	○	○
	VTC	○	○	○	○	○	○	○
	CNC Communication	-	-	-	-	-	○	○
Others	Operating temperature	-20 to 60°C (-4 to 140°F)						
	Physical dimensions (does not include protrusions and antenna) (mm/inch)	188.0/7.40 (W) x 78.0/3.07 (D) x 30.5/1.20 (H)			44.7/1.76 (W) x 94.7/3.83 (D) x 124.8/4.91 (H)	188.0/7.40 (W) x 78.0/3.07(D) x 30.5/1.20 (H)		
	Power supply voltage	12 to 24VDC			24VDC	12 to 24VDC		

*1 Opto-isolated input (supports sink output). Built-in 12VDC power. *2 Share with digital inputs. *3 CPS-MG341G5-ADSC1-931 can be used in EU (R&TTE directive), USA, and Japan. (As of September 2022) *4 SIM card not included. Standard size SIM card only. Visit www.contec.com for details. *5 Opto-isolated (supports sink output and current source output). Built-in 12VDC power or external 12 to 24VDC power is switchable. *6 Opto-isolated (supports sink output). External 12 to 24VDC power supply is needed.
*7 The LAN ports are independent, which makes it possible to split the network segment. *8 Transmittable signals by MTConnect are the collected data through the gateway module's interfaces, and the serial communication data with the CNC.
* The specifications are supported by the newest firmware drivers. Please download the newest firmware from Contec website when you need.

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CONTEC

Technology for a better life

CONPROSYS™ series
Signal Tower Light Monitor
CPS-PAV-AE series

All settings and operations are completed with only web browser
Introducing the CONPROSYS™ series signal tower light monitor!

"Visualize" multiple signal tower status on a browser

Easy installation to signal tower light in use, free from wiring by EnOcean wireless communication

New Release

Store equipment operation status by chronological order, and visualize tendencies such as error occurrence time.

* Product specifications subject to change without notice.

www.contec.com

Product Features

[Master Unit Set *1]

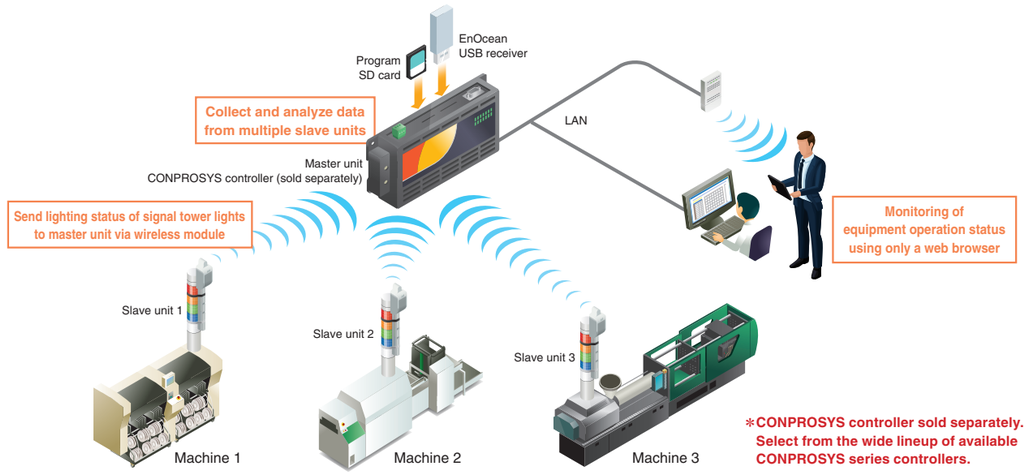
1. Controllers (sold separately) to connect with EnOcean USB receivers can be selected from the wide lineup of CONPROSYS controllers.
2. Easy setup by simply selecting and registering the slave unit ID on the setting screen for the controller (sold separately).
3. All settings and operations are completed with a web browser. Start monitoring without additional dedicated software.
4. Ready-to-use monitoring screens (Andon display, Chronological order graph display, Equipment map display) are available. The acquired data is displayed graphically in time series. The screen can be freely customized using CONPROSYS HMI. Various tasks can be processed by using CONPROSYS VTC.
5. Up to 16 slave units can be connected to one master controller.
6. Email notification in real time when an error occurs. Email notifications can be sent to up to 10 mailboxes.

[Slave Unit]

1. Install the unit to existing signal tower lights in only 10 seconds! Supports use with signal towers lights with up to five levels.
2. Included dedicated rings (ϕ40, 50, 60, 70 mm) can attach the unit to PATLITE LR (ϕ40, 50, 60, or 70) series, LME (ϕ60), LHE-A (ϕ70), LU (ϕ50,70) series signal tower lights (40 / 41.5 mm pitch).
3. Can be powered by solar cells, eliminating the need for a power cord. Its power-saving EnOcean-based wireless communication technology realizes a wiring-less structure and easy installation.
4. During daytime (under lights), it can be operated with solar cells only. During nighttime (in darkness), switch to industrial lithium batteries for operation (up to 3 years*2).
5. High environmental resistance (IP65-compliant, -20 to 60°C / -4 to 140°F wide temperature range) enables installation in harsh environments such as factories with high levels of moisture and dust.

*1. Requires use of a separately sold CONPROSYS controller.
*2. Calculated based on 12 hours of operation using solar cells during daytime (under lights) and 12 hours of operation using lithium batteries during nighttime (in darkness).

System configuration image

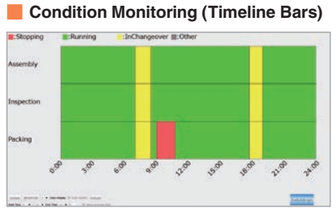


Example of Web Browser Display Screen

Condition monitoring (Andon)

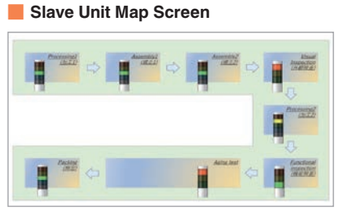
The operation status of equipment for which monitoring settings have been applied can be monitored in real-time using an Andon display. Slave unit signal reception and battery level can be checked easily.

Condition Monitoring (Timeline Bars)



Date and time can be selected while time-series displays for the operation status of monitored equipment enable trends, such as those for error occurrence times, to be visualized.

Slave Unit Map Screen



This screen shows a map display for equipment-mounted slave units. Once users have registered a map of their equipment, layouts for signal tower monitor parts, as well as available images and meters, can be arranged to facilitate centralized management of the entire site.

Models Available for Order

Type	Model	Details
Master unit set (EU model)	*CPS-PAV-AES1-EU*	Signal tower lights monitoring set (Program SD card, EnOcean USB receiver, Slave unit)
Slave unit (EU model)	*CPS-PAV-AE01-EU*	Signal tower lights sensor unit
Master unit set (US model)	*CPS-PAV-AES1-US*	Signal tower lights monitoring set (Program SD card, EnOcean USB receiver, Slave unit)
Slave unit (US model)	*CPS-PAV-AE01-US*	Signal tower lights sensor unit

* -US Model: Use of this product is restricted for the North America, and use in other countries is prohibited by the Radio Law.
* -EU Model: Use of this product is restricted for the EU countries or China, and use in other countries is prohibited by the Radio Law.

Master unit set configuration (CPS-PAV-AES1-EU/-US)

Program SD card …1

EnOcean USB receiver for master unit …1

Slave unit (CPS-PAV-AE01-EU/-US) …1

Cable Tie …1

Supporting Parts …1

Holding Ring - lower part (4 types)…1 each

Holding Ring - upper part (4 types)…1 each

Available Master Units **CONPROSYS Controller Lineup**

Select a CONPROSYS controller (sold separately) equipped with various communication functions and I/O interfaces for use as a master unit to communicate with slave units from among those shown on the back of this page.

Slave unit specifications

Item		Description
Wireless specification	Standard	EnOcean
	Frequency	868.3MHz (-EU Model), 902.875MHz (-US Model)
	The number of sensors can be set	16
	Transmission output	5dBm(EIRP)±2.5dB (-EU Model), 1dBm[typ.] (-US Model)
	Data rate/modulation	125 kbps/ASK modulation (-EU Model), 125 kbps/FSK modulation (-US Model)
	Communication distance	400m (-EU Model), 300m (-US Model) (Values measured in an open space)
Power specification	Power generation element	Solar cell (ECS300)
	Auxiliary battery	Industrial lithium battery (BR-1/2AA: Panasonic)
	Battery life	Up to 3 years *1
Sensor	Detect wavelength	400nm to 800nm (sensor specification)
	Sensitivity adjustment method	Adjustment (16 levels)
	Light-on illuminance	1000lx or more *2
	Light-off illuminance	600lx or less *2
	Blinking detect frequency	0.4Hz to 2.8Hz
	The number of sensors	Up to 5 tiers
Resistance environment	Operating ambient temperature	-20 to 60°C / -4 to 140°F
	Operating ambient humidity	10 to 90%RH (No condensation)
	Vibration resistance	10 to 58.1Hz /semi-amplitude vibration 0.15mm, 58.1 to 150Hz/20m/s 80 minutes each in X, Y, and Z directions
	Shock resistance	15G half-sine shock for 11ms in X, Y, and Z directions (JIS C 60068-2-27-compliant, IEC 60068-2-27-compliant)
Applicable signal tower		Produced by PATLITE Co., Ltd. Signal Tower LR4, LR5, LR6, and LR7 series, LME series *3
Physical dimensions (W x D x H)		328 x 60.7 x 41.6 mm (12.91 x 2.39 x 1.64 inch) (excluding protrusions)
Weight (g/oz)		150/5.29
Standard		-EU: IP65, CE Marking (RE Directive, RoHS Directive), UKCA -US: IP65, RoHS-compliant, FCC Class A

*1 It is a lifetime when the product is used with the economy drive mode (slide switch m1 setting) under the condition of 25 deg. C, for 12 hours in the day time (800lx) and 12 hours in the night time (0lx). Note that the product can semi-permanently operate with the economy drive mode (slide switch m1 setting) under the condition of 800lx at all times. *2 It indicates the value measured by the illuminance meter (CENTER530) for the emission of the white LED (NSSL157AT-H3). *3 This product can be used along with the signal towers fit in the listed specifications (lighting section 40mm to 41.5mm pitch, and ϕ40 to ϕ70).

Physical Dimensions