

CONPROSYS Series  
Digital Output Module  
**CPS-DO-16L (16ch Sink Type)**  
**CPS-DO-16RL (16ch Source Type)**



\*The photograph is a CPS-DO-16L

\* Specifications, color and design of the products are subject to change without notice.

**Features**

**Opto-coupler isolated Output (supporting current sink output)**  
CPS-DO-16L have the opto-coupler isolated Output16 channels (current sink output) whose response speed is 200μsec or less.

CPS-DO-16RL have the opto-coupler isolated Output 16 channels (current source output) whose response speed is 200μsec or less.

**Output circuits include zener diodes for surge voltage protection.**  
Zener diodes are connected to the output circuits to protect against surge voltages. The rated output is 35VDC, 100mA to the maximum per channel.

**Compact Design**  
Compact design, 25.2 (W) x 94.7(D) x 124.8(H) mm, features flexibility in installation.

**Adaptable to a wide range of temperature between -20 and +60°C**  
The product is capable of operating in the temperature between -20 and + 60°C. It can be installed in the various environments.

**Installation easy with two pieces of terminal support and DIN rail**  
You can remove a terminal connector without a screwdriver so that it can shorten the time of the replacement. As the product can be not only mounted on DIN rail, but also is removable along the side rails, replacing is simple and easy as well.

**Equipped with the LED for an operation check**  
The product has the LED for an operation check, which helps you visually confirm the communication status of each interface.

**No electrolytic capacitor**  
Without an electrolytic capacitor, which has a limited life, we are creating the product with a longer life.

**Packing List**

- Product (One of the followings)  
[CPS-DO-16L, CPS-DO-16RL] ...1
- Product Guide ... 1
- Warranty Certificate ...1
- Serial number Label ...1
- 10-pin Connector...2

This product is an extension module with isolated digital Output interface and operates along with the stack type controller of our CONPROSYS series.

CPS-DO-16L have the opto-coupler isolated Output16 channels (current sink output) whose response speed is 200μsec or less.

CPS-DO-16RL have the opto-coupler isolated Output 16 channels (current source output) whose response speed is 200μsec or less.

**Specifications**

**Function specifications**

Item	CPS-DO-16L	CPS-DO-16RL
<b>Output</b>		
Output type	Opto-coupler Isolation Open Collector Output (Current sink type) (negative logic) *1	Opto-isolated output (Current source type) (Positive logic *2)
Isolation	Opto-coupler Isolation	
Voltage Resistance	1000V	
Output rating	Output Voltage	35VDC (Max)
	Output Current	100mA (Max)
Residual Voltage with Output ON	0.5V or less (Output current ≤ 50mA), 1.0V or less (Output current ≤ 100mA)	-
Maximum voltage drop at ON	-	1.5V or less
Response time	Within 200μsec	
Number of output signal channels	16 *There is one common for every 8 output signals	
LED	DO00 - DO07 (Green), DO10 - DO17 (Green)	
<b>Common</b>		
Connector	2 pieces 3.81mm pitch 10-pin terminal	
Applicable	AWG28 - 16	
LED	Status (Green, Red)	
External circuit power supply *3	12 - 24VDC (±10%)	
Electricity consumption	0.1A (Max)	
Physical dimensions (mm)	25.2 (W)×94.7(D)×124.8(H) (not include projection)	
Weight	200g	
Installation method	Quick mounting onto 35mm DIN rail	

\*1 Data "0" and "1" correspond to the High and Low levels, respectively.

\*2 Data "0" and "1" correspond to the Low and High levels, respectively.

\*3 The fuse for overcurrent prevention is provided in the digital output circuit. Use a power supply that can supply a current of 2A and greater per common.

**CAUTION**

The maximum number of stacking modules operating along with the stack type controller is 16 and the total current consumption of the modules should be less than 3.3A.

**Installation Environment Requirements**

Item		CPS-DO-16L	CPS-DO-16RL
Operating ambient temperature		-20 - +60°C	
Operating ambient humidity		10 - 90%RH (No condensation)	
Non-operating ambient temperature		-20 - +60°C	
Non-operating ambient humidity		10 - 90%RH (No condensation)	
Floating dust particles		Not to be excessive	
Corrosive gases		None	
Line-noise resistance	Line noise	Signal Line /±1kV (IEC61000-4-4 Level 3, EN61000-4-4 Level 3)	
	Static electricity resistance	Touch /±4kV (IEC61000-4-2 Level 2, EN61000-4-2 Level 2) Air /±8kV (IEC61000-4-2 Level 3, EN61000-4-2 Level 3)	
Vibration resistance	Sweep resistance	10 - 57Hz*3/ semi-amplitude vibration 0.15mm, 57 - 150Hz/2.0G 40 minutes each in X, Y, and Z directions (JIS C60068-2-6-compliant, IEC60068-2-6-compliant)	
	Impact resistance	15G half-sine shock for 11ms in X, Y, and Z directions (JIS C60068-2-27-compliant, IEC60068-2-27-compliant)	
Standard		VCCI Class A, FCC Class A, CE Marking (EMC Directive Class A, RoHS Directive)	

\*3 With the optional DIN rail fitting power supply: 10-55Hz (for details, see the specification of the optional power supply)

**List of Option**

**Stack Type Controller**

- CPS-MCS-341DS1-111: Stack Type CPU module
- CPS-MCS341G-DS1-130: Stack Type CPU module + 3G WAN
- CPS-MCS341Q-DS1-131: Stack Type CPU module + 920MHz LAN
- CPS-ECS341-1-011: Ether CAT Slave Module

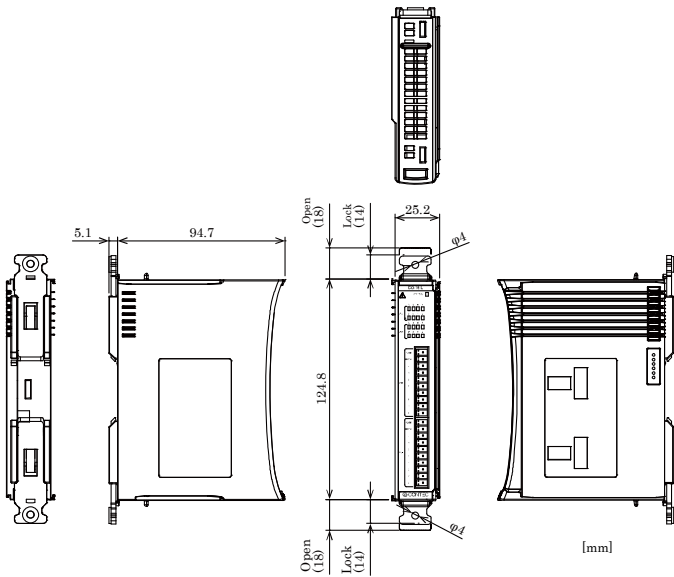
**DIN rail mounting power supply**

- CPS-PWD-90AW24-01: DIN rail fitting power supply 90[W]  
(Input: 100 - 240VAC, Output: 24VDC 3.8 A)
- CPS-PWD-30AW24-01: DIN rail fitting power supply 30[W]  
(Input: 100 - 240VAC, Output: 24VDC 1.3 A)

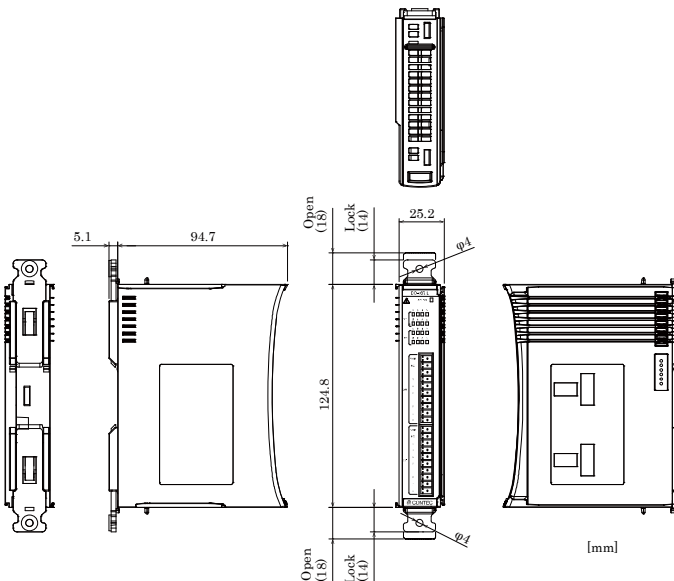
\* Information about the option products, see the Contec's website.

**Physical Dimensions**

**Physical dimension <CPS-DO-16L >**

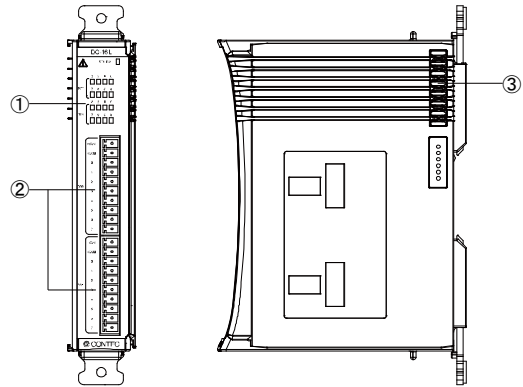


**Physical dimension <CPS-DO-16RL >**

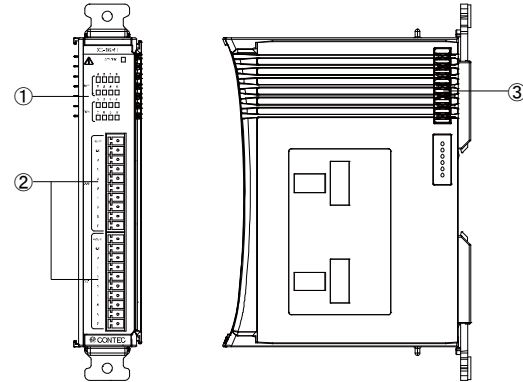


**Component Name**

**CPS-DO-16L Nomenclature of components**



**CPS-DO-16RL Nomenclature of components**



1. LED : Indicates the status of the product.
2. Digital Output : Use the 10-pin connector; included in this package.
3. Stack Bus : Used for the stacking module power supply and communication.