

SPECIFICATIONS

Item	Model No.	Type	Standard		Multi-function	
			For low pressure	For high pressure	For low pressure	For high pressure
			Asia (Note 2)	DP-101(-M)(-P)	DP-102(-M)(-P)	DP-101A(-M)(-P)
		Europe	DP-101-E-P	DP-102-E-P	DP-101A-E-P	DP-102A-E-P
		M8 plug-in connector type	DP-111-E-P-J	DP-112-E-P-J	DP-111A-E-P-J	DP-112A-E-P-J
		North America (Note 2)	DP-101-N(-P)	DP-102-N(-P)	DP-101A-N(-P)	DP-102A-N(-P)
Type of pressure	Gauge pressure					
Rated pressure range	- 100.0 to + 100.0 kPa		- 0.100 to + 1.000 MPa		- 100.0 to + 100.0 kPa	
Set pressure range	- 100.0 to + 100.0 kPa - 1.020 to + 1.020 kgf/cm ² - 1.000 to + 1.000 bar - 14.50 to + 14.50 psi - 750 to + 750 mmHg - 29.5 to 29.5 inHg		- 0.100 to + 1.000 MPa - 100 to + 1,000 kPa - 1.02 to + 10.20 kgf/cm ² - 1.00 to + 10.00 bar - 14.6 to + 145.0 psi		- 100.0 to + 100.0 kPa - 1.020 to + 1.020 kgf/cm ² - 1.000 to + 1.000 bar - 14.50 to + 14.50 psi - 750 to + 750 mmHg - 29.5 to 29.5 inHg	
Pressure withstandability	500 kPa		1.5 MPa		500 kPa	
Applicable fluid	Non-corrosive gas					
Selectable unit	For low pressure: kPa, kgf/cm ² , bar, psi, mmHg, inHg, For high pressure: MPa, kPa, kgf/cm ² , bar, psi					
Supply voltage	12 to 24 V DC ± 10 % Ripple P-P 10 % or less					
Power consumption	Normal operation: 840 mW or less (Current consumption 35 mA or less at 24 V supply voltage) ECO mode: 600 mW or less at STD (Current consumption 25 mA or less at 24 V supply voltage) 480 mW or less at FULL (Current consumption 20 mA or less at 24 V supply voltage)					
Comparative output	<Asia (NPN output), North America (NPN output)> NPN open-collector transistor • Maximum sink current: 100 mA • Applied voltage: 30 V DC or less (between comparative output and 0 V) • Residual voltage: 2 V or less (at 100 mA sink current)			<Asia (PNP output), Europe, North America (PNP output)> PNP open-collector transistor • Maximum source current: 100 mA • Applied voltage: 30 V DC or less (between comparative output and + V) • Residual voltage: 2 V or less (at 100 mA source current)		
Output operation / Output modes	NO / NC (selectable by key operation) / EASY mode / Hysteresis mode / Window comparator mode					
Hysteresis	Minimum 1 digit (variable) (however, 2 digits when using psi unit)					
Repeatability	± 0.1 % F.S. (within ± 2 digits)		± 0.2 % F.S. (within ± 2 digits)		± 0.1 % F.S. (within ± 2 digits)	
Response time	2.5 ms, 5 ms, 10 ms, 25 ms, 50 ms, 100 ms, 250 ms, 500 ms, 1,000 ms, 5,000 ms, selectable by key operation					
Short-circuit protection	Incorporated					
External input (Note 3) Auto-reference function / Remote zero-adjustment function	_____			<Asia (NPN output), North America (NPN output)> ON voltage: 0.4 V DC or less OFF voltage: 5 to 30 V DC, or open Input impedance: 10 kΩ approx. Input time: 1 ms or more		<Asia (PNP output), Europe, North America (PNP output)> ON voltage: 5 V to + V DC OFF voltage: 0.6 V DC or less, or open Input impedance: 10 kΩ approx. Input time: 1 ms or more
Analog voltage output (Note 3)	_____			Output voltage: 1 to 5 V DC Zero point: within 3 V ± 5 % F.S. Span: within 4 V ± 5 % F.S. Linearity: within ± 1 % F.S. Output impedance: 1 kΩ approx.		Output voltage: 0.6 to 5 V Zero point: within 1 V ± 5 % F.S. Span: within 4.4 V ± 5 % F.S. Linearity: within ± 1 % F.S. Output impedance: 1 kΩ approx.
Display	4 digits + 4 digits 3-color LCD display (Display refresh rate: 250 ms, 500 ms, 1,000 ms, selectable by key operation)					
Displayable pressure range	- 100.0 to + 100.0 kPa - 1.020 to + 1.020 kgf/cm ² - 1.000 to + 1.000 bar - 14.50 to + 14.50 psi - 750 to + 750 mmHg - 29.5 to 29.5 inHg		- 0.100 to + 1.000 MPa - 100 to + 1,000 kPa - 1.02 to + 10.20 kgf/cm ² - 1.00 to + 10.00 bar - 14.6 to + 145.0 psi		- 100.0 to + 100.0 kPa - 1.020 to + 1.020 kgf/cm ² - 1.000 to + 1.000 bar - 14.50 to + 14.50 psi - 750 to + 750 mmHg - 29.5 to 29.5 inHg	
Indicator	Orange LED (Comparative output 1 operation indicator, comparative output 2 operation indicator: Lights up when each comparative output is ON)			Orange LED (Comparative output 1 operation indicator: Lights up when comparative output is ON, Analog voltage output operation indicator: Lights up when setting)		
Protection	IP40 (IEC)					
Ambient temperature	- 10 to + 50 °C + 14 to + 122 °F, Storage: - 10 to + 60 °C + 14 to + 140 °F					
Ambient humidity	35 to 85 % RH (No dew condensation or icing allowed), Storage: 35 to 85 % RH					
Voltage withstandability	1,000 V AC for one min. between all supply terminals connected together and enclosure					
Insulation resistance	50 MΩ, or more, with 500 V DC megger between all supply terminals connected together and enclosure					
Vibration resistance	10 to 500 Hz frequency, 3 mm 0.118 in amplitude, in X, Y and Z directions for two hours each (when panel is mounted: 10 to 150 Hz frequency, 0.75 mm 0.030 in amplitude, in X, Y and Z directions for two hours each)					
Shock resistance	100 m/s ² acceleration (10 G approx.) in X, Y and Z directions for three times each					
Temperature characteristics	Within ± 0.5 % F.S. (at + 20 °C + 68 °F)		Within ± 1 % F.S. (at + 20 °C + 68 °F)		Within ± 0.5 % F.S. (at + 20 °C + 68 °F)	
Pressure port	Asia: M5 female thread + R (PT) 1/8 male thread [excluding DP-□-M(-P)], Europe: M5 female thread + G 1/8 male thread, North America: M5 female thread + NPT 1/8 male thread					
Material	Enclosure: PBT (glass fiber reinforced), LCD display: Acrylic, Pressure port: Brass (nickel plated)(DP-□-M(-P), DP-□-J), Stainless steel (SUS303), Mounting threaded part: Brass (nickel plated), Switch part: Silicone rubber					
Connecting method / Cable length	Connector / Total length up to 100 m 328.084 ft (less than 10 m 32.808 ft when conforming to CE marking) is possible with 0.3 mm ² , or more, cable					
Weight	Net weight: 40 g approx., Gross weight: 135 g approx. (DP-10□-M(-P):125 g approx.)					
Accessories	CN-14A-C2 (Connector attached cable 2 m 6.562 ft): 1pc. (excluding M8 plug-in connector type)					

Notes: 1) Where measurement conditions have not been specified precisely, the conditions used were an ambient temperature of + 20 °C + 68 °F.
 2) Model Nos. of Asia type having "M" are short pressure port type. Model Nos. of Asia and North America types having the suffix "P" are PNP output type.
 3) Cannot be used at the same time.

SPECIFICATIONS

Designation	Copy unit
Item	SC-SU1
Applicable sensor	Digital pressure sensor DP-100 series, DPC-100 series, Digital fiber sensor FX-100 series
Supply voltage (Note 1)	12 V DC [AC adapter (accessory): Input 100 to 240 V AC 50 / 60 Hz]
Repeatability of connecting and disconnecting (Note 2)	5,000 times approx.
Ambient temperature	0 to +40 °C 32 to 104 °F (No dew condensation allowed), Storage: -10 to +60 °C +14 to +140 °F
Ambient humidity	35 to 85 % RH, Storage: 35 to 85 % RH
Material	Enclosure base: ABS, Top cover: ABS, Rubber foot: Natural rubber
Weight	Net weight: 190 g approx., Gross weight: 350 g approx.

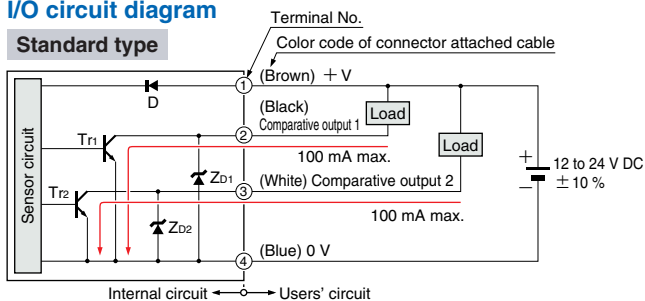
Notes: 1) For destinations where the shape of the AC adapter plug differs from the shape for Japan, please prepare a separate conversion adapter.
 2) Number of repeatability may vary depending on the usage conditions.

I/O CIRCUIT AND WIRING DIAGRAMS

DP-10□ NPN output type

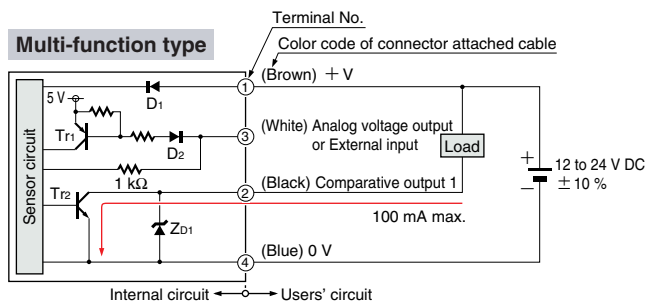
I/O circuit diagram

Standard type



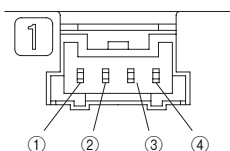
Symbols ... D : Reverse supply polarity protection diode
 Z_{D1}, Z_{D2} : Surge absorption zener diode
 T_{r1}, T_{r2} : NPN output transistor

Multi-function type



Symbols ... D₁, D₂ : Reverse supply polarity protection diode
 Z_{D1} : Surge absorption zener diode
 T_{r1} : PNP input transistor
 T_{r2} : NPN output transistor

Terminal arrangement diagram

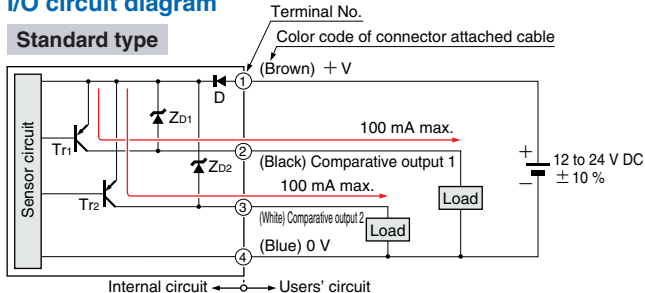


Terminal	Designation
①	+ V
②	Comparative output 1
③	Standard type: Comparative output 2 Multi-function type: Analog voltage output or External input
④	0 V

DP-10□-P PNP output type

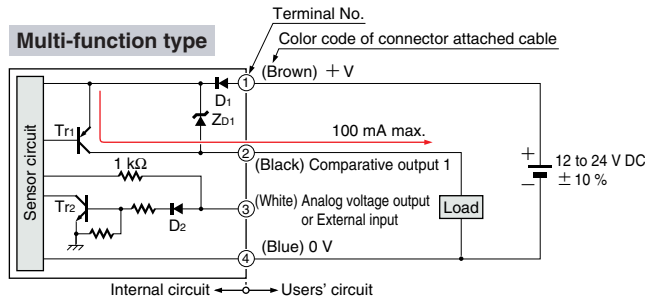
I/O circuit diagram

Standard type



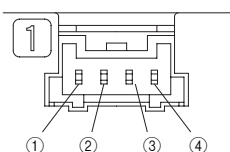
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Multi-function type



Symbols ... D₁, D₂ : Reverse supply polarity protection diode
 Z_{D1} : Surge absorption zener diode
 T_{r1} : PNP output transistor
 T_{r2} : NPN input transistor

Terminal arrangement diagram



Terminal	Designation
①	+ V
②	Comparative output 1
③	Standard type: Comparative output 2 Multi-function type: Analog voltage output or External input
④	0 V