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Find the *OMRON DRT2-OD08C-1* at our website: ***Click HERE***

e-CON Connector Terminals

DRT2-□D16S(-1)

Includes Sensor Connector That Conforms to Industry Standards And Can Be Used to Connect Sensors with Pre-wired Cables without Using Special Tools.



- Equipped with the standard Smart Slave functions that provide powerful preventative maintenance and troubleshooting capabilities.
- Digital I/O Terminal compatible with industry-standard sensor connectors
- Connect sensors easily without special tools. Reduce time required for wiring.
- Load short-circuit detection.

Smart Slave Functions

- Operation time monitor (I/O only)
- Contact operation counter
- Unit conduction time monitor
- Total ON time monitor
- Unit comments
- Connected device comments
- Network power supply voltage monitor
- Communications error log function
- Input filter
- Power-ON inrush current protection
- Sensor power supply short-circuit detection
- External load short-circuit detection function
- Communications speed auto-detection
- No need to wire Unit power supply
- No need to wire input device power supply
- Last maintenance date

Ordering Information

Specifications			I/O connections	Rated internal circuit power supply voltage	Rated I/O power supply voltage	Model
Inputs	NPN (+ common)	16 inputs	Sensor connector	Supplied from the communications connector	Supplied from the communications connector	DRT2-ID16S
	PNP (- common)					DRT2-ID16S-1
I/O	NPN (input: + common, output: - common)	8 inputs/ 8 outputs			Supplied from external source for outputs	DRT2-MD16S
	PNP (input: - common, output: + common)					DRT2-MD16S-1

General Specifications

Item / Model	DRT2-ID16S(-1)	DRT2-MD16S(-1)
Communications power supply voltage	11 to 25 VDC	
Unit power supply voltage	Not required (Supplied from the communications connector.)	
I/O power supply voltage	20.4 to 26.4 VDC (24 VDC -15%/+10%)	
Current consumption	Communications power supply: 230 mA max.	Communications power supply: 135 mA max.
Dielectric strength	500 VAC between isolated circuits	
Noise immunity	Conforms to IEC61000-4-4, 2 kV (power line)	
Vibration resistance	10 to 60 Hz, 0.7-mm double amplitude, 60 to 150 Hz, 50 m/s² for 80 min each in the X, Y, and Z directions	
Shock resistance	150m/s², 6 directions, 3 times each	
Mounting method	DIN 35 mm-track mounting or M4 screw mounting	
Screw tightening torque	M2 (communications connector screws): 0.26 to 0.3 N•m M4 (unit mounting): 0.6 to 0.98 N•m	
Ambient operating temperature	-10°C to 55°C	
Ambient operating humidity	25 to 85% (with no condensation)	

Item / Model	DRT2-ID16S(-1)	DRT2-MD16S(-1)
Ambient storage temperature	-25°C to 65°C	
Weight	90 g max.	95 g max.

Output Specifications

● Terminals with 8 Inputs and 8 Outputs

Item / Model	DRT2-MD16S	DRT2-MD16S-1
Internal I/O common	NPN	PNP
I/O points	8 outputs (8 to 15)	
Rated output current	0.3 A/point, 2.4 A/common	0.3 A/point, 1.6 A/common
Residual voltage	1.2 VDC max. (0.3 A DC between output and G terminal)	1.2 VDC max. (0.3 A DC between output and V terminal)
Leakage current	0.1 mA max.	
ON delay time	1.5 ms max.	
OFF delay time	1.5 ms max.	
Number of circuits per common	8 per common	
Load short-circuit detection current	2.4 A min./common	1.6 A min./common

Input Specifications

● Terminals with 16 Inputs

Item / Model	DRT2-ID16S	DRT2-ID16S-1
Internal I/O common	NPN	PNP
I/O points	16 inputs	
ON voltage	9 VDC min. (between each input terminal and V)	9 VDC min. (between each input terminal and G)
OFF voltage	5 VDC max. (between each input terminal and V)	5 VDC max. (between each input terminal and G)
OFF current	1 mA max.	
Input current	11 mA max./point (at 24 VDC) 3.0 mA min./point (at 11 VDC)	
ON delay time	1.5 ms max.	
OFF delay time	1.5 ms max.	
Number of circuits per common	16 per common	
Sensor short-circuit detection current	100 mA min. (per two points)	

● Terminal with 8 Inputs/8 Outputs

Item / Model	DRT2-MD16S	DRT2-MD16S-1
Internal I/O common	NPN	PNP
I/O points	8 inputs (0 to 7)	
ON voltage	9 VDC min. (between each input terminal and V)	9 VDC min. (between each input terminal and G)
OFF voltage	5 VDC max. (between each input terminal and V)	5 VDC max. (between each input terminal and G)
OFF current	1 mA max.	
Input current	11 mA max./point (at 24 VDC) 3.0 mA min./point (at 11 VDC)	
ON delay time	1.5 ms max.	
OFF delay time	1.5 ms max.	
Number of circuits per common	8 per common	
Sensor short-circuit detection current	100 mA min. (per two points)	

Applicable Connectors (sold separately)

● OMRON Connectors

Model	Specifications	Compatible wire size
XN2A-1430	Spring-clamp style	28 to 20 AWG (0.08 to 0.5 mm²) wire, 1.5 mm max. outer diameter including insulation

● Tyco Electronics Connectors

Model	Color of housing	Compatible wire size	
3-1473562-4	Orange	0.6 to 0.9 mm max. outer diameter including insulation	Wire size: 0.08 to 0.5 mm²
1-1473562-4	Red	0.9 to 1.0 mm max. outer diameter including insulation	
1473562-4	Yellow	1.0 to 1.15 mm max. outer diameter including insulation	
2-1473562-4	Blue	1.15 to 1.35 mm max. outer diameter including insulation	
4-1473562-4	Green	1.35 to 1.60 mm max. outer diameter including insulation	

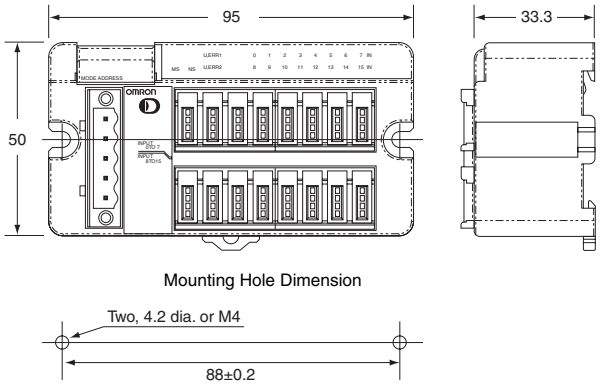
● Sumitomo 3M Connectors

Model	Specifications/color of housing	Compatible wire size
37104-3101-000FL	Red	26 to 24 AWG (0.14 to 0.2 mm²) wire, 0.8 to 1.0 mm max. outer diameter including insulation
37104-3122-000FL	Yellow	26 to 24 AWG (0.14 to 0.2 mm²) wire, 1.0 to 1.2 mm max. outer diameter including insulation
37104-3163-000FL	Orange	26 to 24 AWG (0.14 to 0.2 mm²) wire, 1.2 to 1.6 mm max. outer diameter including insulation
37104-2124-000FL	Green	22 to 20 AWG (0.3 to 0.5 mm²) wire, 1.0 to 1.2 mm max. outer diameter including insulation
37104-2165-000FL	Blue	22 to 20 AWG (0.3 to 0.5 mm²) wire, 1.2 to 1.6 mm max. outer diameter including insulation
37104-2206-000FL	Gray	22 to 20 AWG (0.3 to 0.5 mm²) wire, 1.6 to 2.0 mm max. outer diameter including insulation

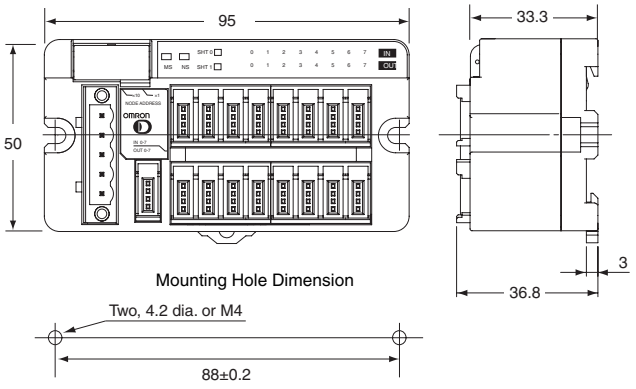
Dimensions

(Unit: mm)

DRT2-ID16S(-1)

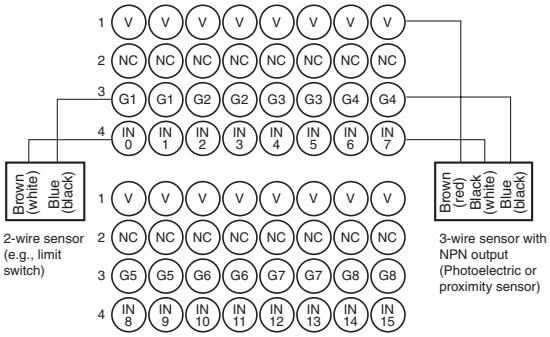


DRT2-MD16S(-1)

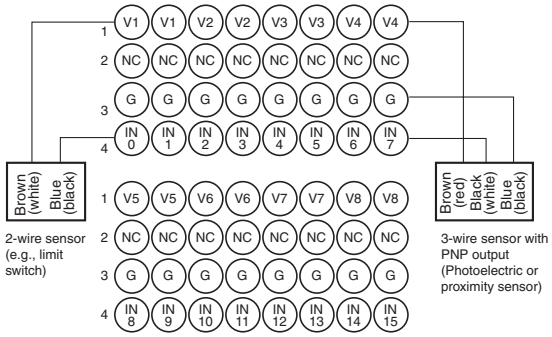


Wiring Diagrams

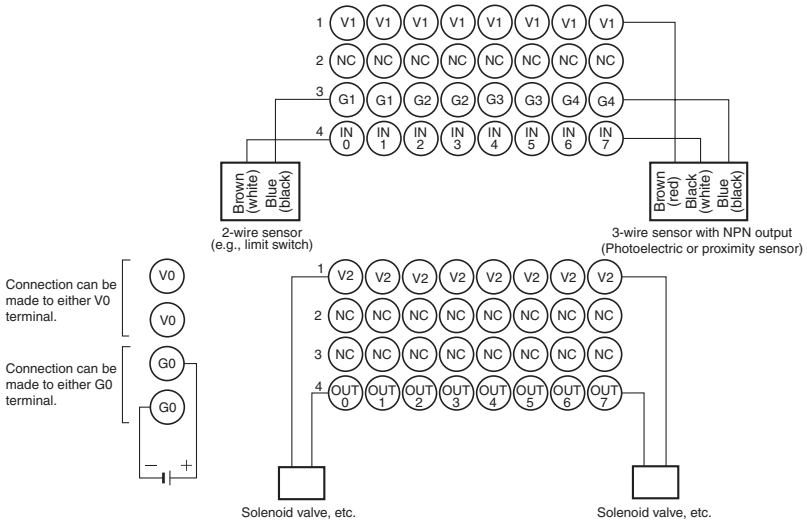
DRT2-ID16S (NPN)



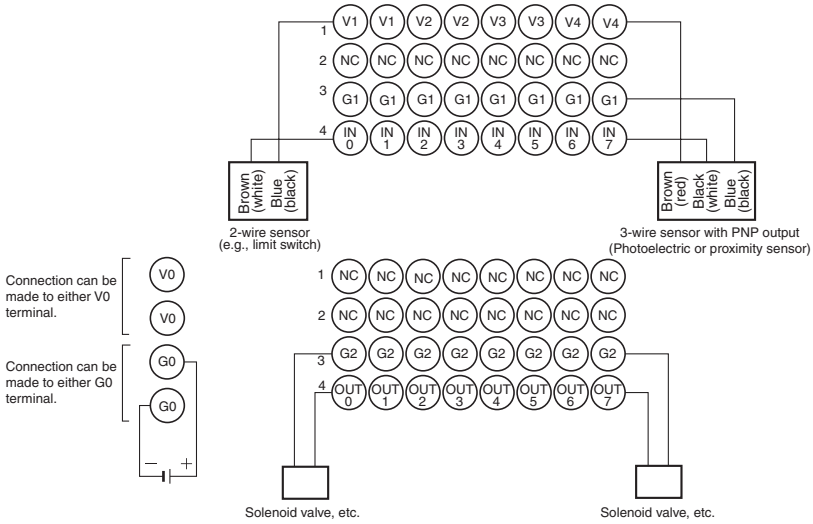
DRT2-ID16S-1 (PNP)



DRT2-MD16S (NPN)



DRT2-MD16S-1 (PNP)



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