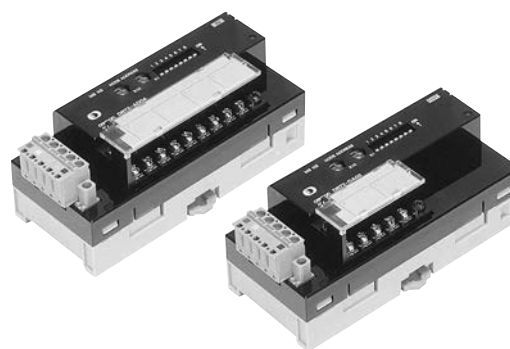


Analog I/O Terminals

DRT2-AD04(H)/DA02

Performs Calculations on Analog Values within the Slave Itself. Also Provides High Resolution at 1/30,000 (Full Scale) and Support for a Wide Variety of Data Sampling.

- Equipped with the standard Smart Slave functions that provide powerful preventative maintenance and troubleshooting capabilities.
- Sampling data can be analyzed internally to provide a low-cost scheduler function.
- Equipped with functions such as the scaling function, peak/bottom hold; top/valley hold; comparator function, cumulative counter, and derivative calculation function.
- Two I/O points can be allocated to any two of the following values: analog input, peak/bottom, top, valley, or rate-of-change. Values without an allocated I/O point can be read with message communications.



Smart Slave Functions

Unit conduction time monitor	Unit comments	Connected device comments	Network power supply voltage monitor
Communications error log function	Removable terminal block	Automatic baud rate detection. No wiring required.	No need to wire Unit power supply
Scaling	User calibration	Last maintenance date	Integration
Moving averaging (inputs only)	Peak/bottom hold	Top/valley hold	Rate of change calculation
Comparator	AD conversion points (conversion cycle) setting (inputs only)	Error output value setting (outputs only)	

Ordering Information

Classification	I/O points	Model
Analog input	4 inputs (Resolution: 6, 000)	DRT2-AD04 *1
	4 inputs (Resolution: 30, 000)	DRT2-AD04H
Analog output	2 outputs	DRT2-DA02 *1

*1. Product no longer available to order.

General Specifications

Item	Model	DRT2-AD04	DRT2-AD04H	DRT2-DA02
Communications power supply voltage		11 to 25 VDC (Supplied from the communications connector)		
Current consumption		90 mA max. (24 VDC) 150 mA max. (11V DC)	70 mA max. (24 VDC) 110 mA max. (11 VDC)	120 mA max. (24 VDC) 220 mA max. (11 VDC)
Noise immunity		Conforms to IEC61000-4-4, 2 kV (power line)		
Vibration resistance		10 to 150 Hz, 0.7-mm double amplitude		
Shock resistance		150 m/s ²		
Dielectric strength		500 VAC for 1 min between the communications circuit and analog circuit (1 mA sensing current)		
Ambient operating temperature		-10°C to 55°C (with no icing or condensation)		
Ambient operating humidity		25% to 85%		
Ambient operating atmosphere		No corrosive gases		
Ambient storage temperature		-20°C to 65°C		
Mounting method		DIN 35 mm-track mounting		
Mounting strength		50 N 10 N (in the DIN Track direction)		
Screw tightening torque		M3 (power, I/O terminal): 0.5 N·m		
Weight		170 g max.	160 g max.	150 g max.

Input Specifications

Model		DRT2-AD04		DRT2-AD04H	
Item	Specifications	Voltage input	Current input	Voltage input	Current input
Input points		4 points (inputs 0 to 3)			
Input type		0 to 5 V 1 to 5 V 0 to 10 V -10 to +10 V	0 to 20 mA 4 to 20 mA	0 to 5 V 1 to 5 V 0 to 10 V	0 to 20 mA 4 to 20 mA
Input range setting method		• Set using DIP switches: Shared by inputs 0 and 1, shared by inputs 2 and 3 • Set using the Configurator: Possible to set inputs 0 to 3 independently			
Maximum signal input		±15 V	±30 mA	±15 V	±30 mA
Input impedance		1 MΩ min.	Approx. 250 Ω	1 MΩ min.	Approx. 250 Ω
Resolution		1/6,000 (FS)		1/30,000 FS (full scale)	
Overall accuracy	25°C	±0.3% FS	±0.4% FS	±0.3% FS	±0.4% FS
	-10°C to 55°C	±0.6% FS	±0.8% FS	±0.6% FS	±0.8% FS
Conversion time		4 ms max. for 4 inputs Note: When calculation functions are not used and the DeviceNet communications cycle is 4 ms.		250 ms max. for 4 inputs	
Converted data		Input ranges other than -10 to 10 V: Full scale is 0000 to 1770 hexadecimal (0 to 6,000) -10 to 10 V input range: Full scale is F448 to 0BB8 hexadecimal (-3,000 to 3,000) A/D conversion range: ±5% FS		Full scale is 0000 to 7530 hexadecimal A/D conversion range: ±5% FS	
Insulation method		Photocoupler isolation between inputs and communications lines (There is no isolation between input signals)		Photocoupler isolation (between inputs and communications lines and between temperature input signals)	
I/O connections		Terminal block			
Accessories		Four shorting bars for use with current inputs.			

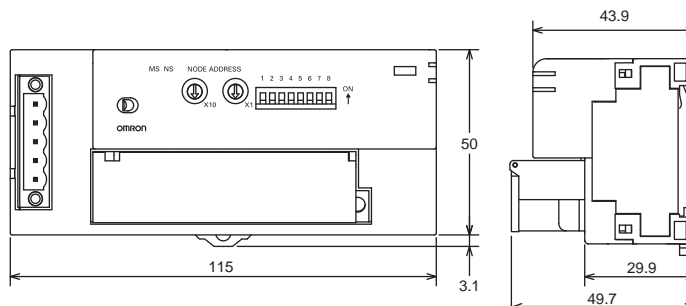
Output Specifications

Model		DRT2-DA02	
Item	Specifications	Voltage output	Current output
Output points		2 points (output 0 and 1)	
Output type		0 to 5 V 1 to 5 V 0 to 10 V -10 to 10 V	0 to 20 mA 4 to 20 mA
Input range setting method		<ul style="list-style-type: none"> Set using DIP switches: Independent for outputs 0 and 1 Set using the Configurator: Independent for outputs 0 and 1 	
Allowable output load resistance		1 KΩ min.	600 Ω max.
Resolution		1/6,000 (FS)	
Overall accuracy	25°C	±0.4% full scale	
	-10°C to 55°C	±0.8% full scale	
Conversion time		2 ms/2 points	
Converted data		Output ranges other than -10 to 10 V: Full scale is 0000 to 1770 hexadecimal (0 to 6,000) -10 to 10 V output range: Full scale is F448 to 0BB8 hexadecimal (-3,000 to 3,000) D/A conversion range: ±5% FS	
Insulation method		Photocoupler isolation between outputs and communications lines (There is no isolation between output signals)	
I/O connections		Terminal block	
Accessories		None	

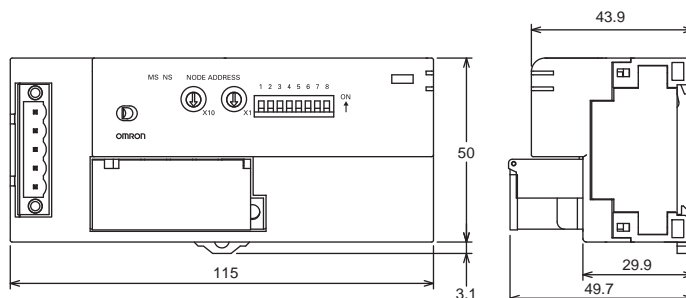
Dimensions

(Unit: mm)

DRT2-AD04 DRT2-AD04H

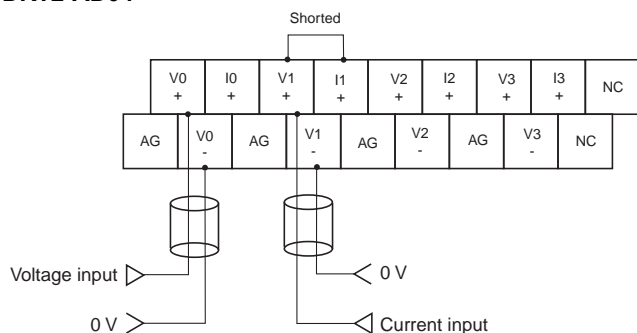


DRT2-DA02



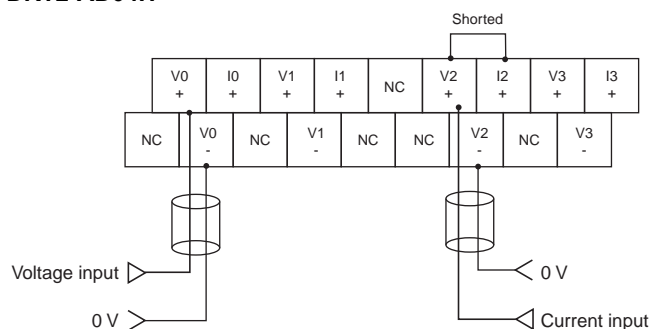
Wiring Diagrams

DRT2-AD04



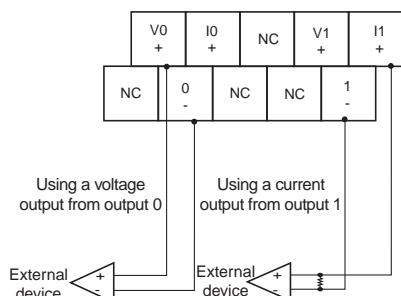
Note: With using a current input, always short the V+ and I+ terminals. (Use the shorting bar provided with the Unit.)

DRT2-AD04H



Note: With using a current input, always short the V+ and I+ terminals. (Use the shorting bar provided with the Unit.)

DRT2-DA02



Note: The voltage and current output ranges (signals) are set with either the DIP switch or the Configurator settings.