Device Net communication converter

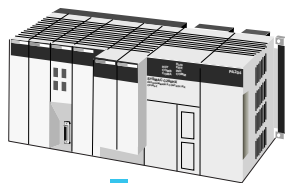## Multi-loop temperature controllers connectable to DeviceNet!
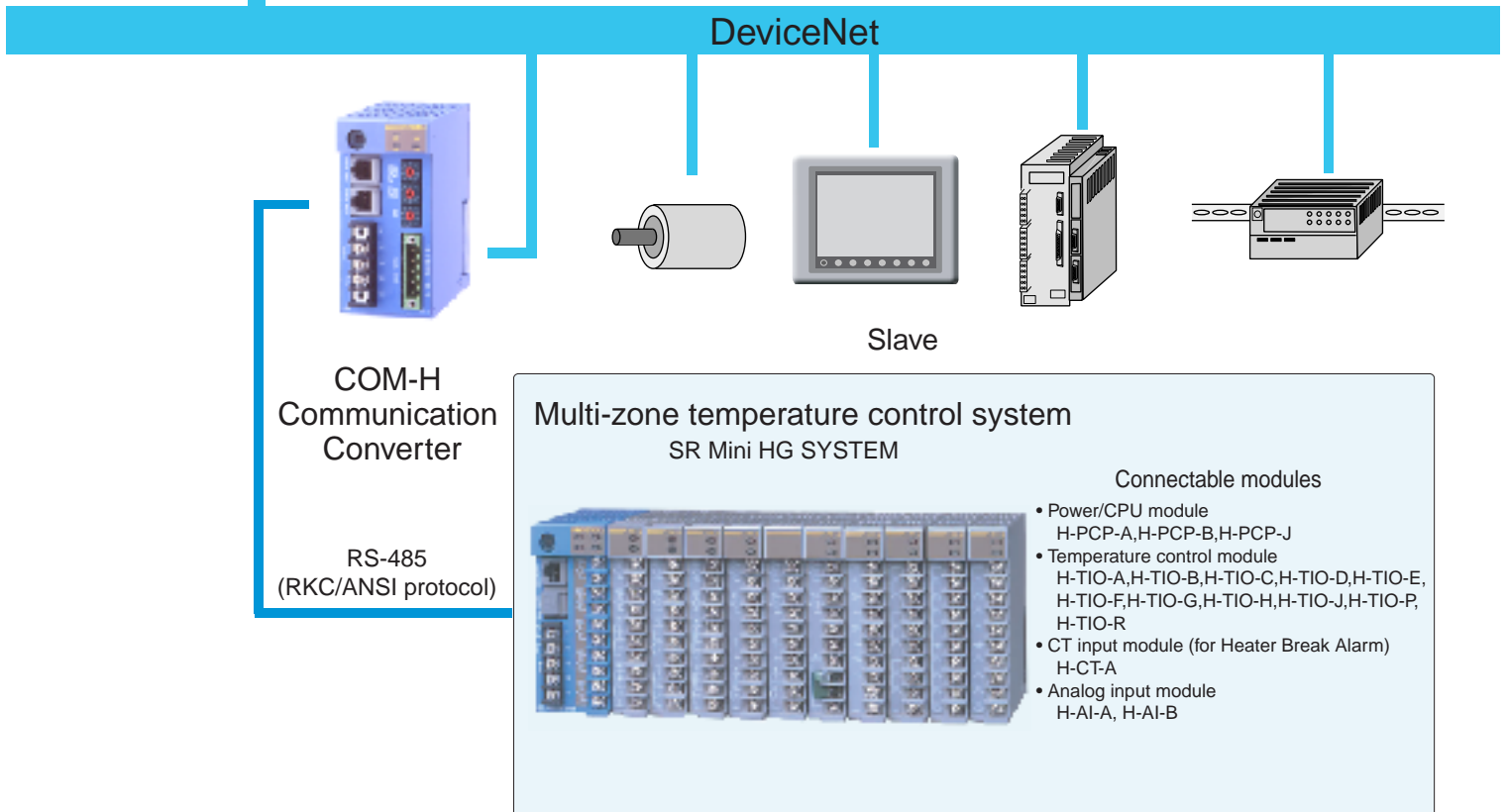
COM-H

CE · UL · CSA

COM-H is a communication converter to be used with the SR Mini HG SYSTEM to connect to a DeviceNet network.

It is connected between a DeviceNet network and the SR Mini HG SYSTEM.

The SR Mini multi-loop controllers is capable of up to 20 zones of autotuning PID control in a single rack. The COM-H may connect to only one SR Mini rack.

PLC
(Master)

DeviceNet

Slave

COM-H
Communication
Converter

RS-485
(RKC/ANSI protocol)

Multi-zone temperature control system
SR Mini HG SYSTEM

Connectable modules
- Power/CPU module
  H-PCP-A,H-PCP-B,H-PCP-J
- Temperature control module
  H-TIO-A,H-TIO-B,H-TIO-C,H-TIO-D,H-TIO-E,
  H-TIO-F,H-TIO-G,H-TIO-H,H-TIO-J,H-TIO-P,
  H-TIO-R
- CT input module (for Heater Break Alarm)
  H-CT-A
- Analog input module
  H-AI-A, H-AI-B

RKC® RKC INSTRUMENT INC.

Specifications

DeviceNet communication

Protocol : DeviceNet equivalent
Supported connection : Polling I/O, Explicit message
Communication type : Multi-drop, T-branch method
(Terminal resistor required)
Communication speed : 500kbps, 250kbps, 125kbps

Speed	Max.length [1]	Branch	Trunk line
500kbps	100m or less [2]	6m >	39m >
250kbps	250m or less [2]	6m >	78m >
125kbps	500m or less [2]	6m >	156m >

Maximum node : 64 (including Master)
Error control check : CRC error and node address (MAC ID) duplication check.

[1] Distance between two farthest nodes.
[2] 100m or less if thin exclusive cable is used in a trunk line.

RKC controller communication

Communication method : RS-422A or RS-232C equivalent
* To be specified at the time of ordering
Connection : RS-422A : 4-wire multi-drop connection
RS-232C : Point-to-Point connection
Protocol : ANSI X3.28 subcategory 2.5B1
Synchronization : Start/Stop method
Communication speed : 19200bps, 9600bps, 4800bps
(default : 9600bps)
* Specify one from the above.
Bit format : a) Start-bit : 1
b) Data bit : 7 or 8
c) Parity bit : Without, Odd or Even
d) Stop bit : Stop bit 1
Communication code : JIS/ASCII 7-bit code
Maximum connection : For a single COM-H, one unit of SR Mini HG

General specifications

Insulation resistance : More than 20MΩ (500V DC) between power and ground terminals
More than 20MΩ (500V DC) between communication and ground terminals
Dielectric strength : 1500V AC for one minute between power and terminals
1000V AC for one minute between communication and ground terminals
Supply voltage : 21.6 to 26.4V DC (Ripple rate 10%p-p or less)
(Rating : 24V DC)
Power consumption : Max.70mA
Self-diagnosis : Check items : watchdog timer
Lamp action : Red LED (MS) blinks, and all other displays go off.
Ambient temperature : 0 to 50℃ (32 to 122°F)
Ambient humidity : 45 to 85%RH
Weight : Approx. 270g.
External dimensions : 48 (W) X 96 (H) X 100 (D)mm
Operating environment : Free from corrosive and flammable gas and dust.
Other conditions : Free from external noise, vibration, shock and exposure to sunlight.

Compliance with standards

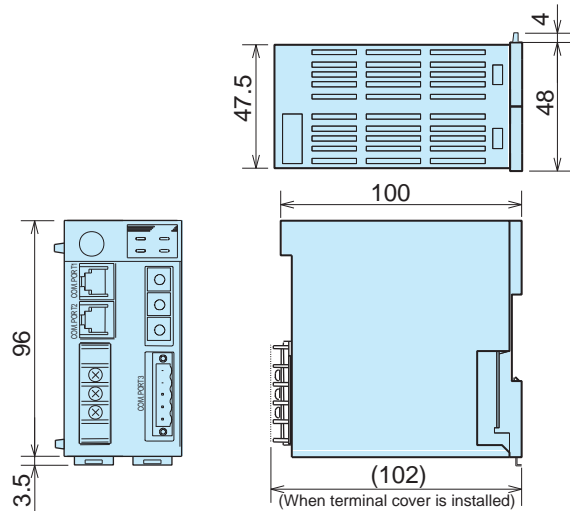• CE marked
• UL recognized
• CSA certified

Model code

Specifications	Description	Suffix code			
Model code	COM-H	− □ − □ − □ − □			
Supply voltage	24V DC	3			
Available controller	SR Mini HG SYSTEM		10		
Communication	RS-232C			1	
	RS-422A			4	
Connector for DeviceNet	Open connector				N
	Micro connector				1

■Cable

Specifications	Model code
Cable between COM-H and SR Mini HG (length: 3m)	W-BF-02-3000

External Dimensions

Unit:mm

4
47.5
48
100
96
3.5
(102)
(When terminal cover is installed)

Depth when mounted on a DIN-rail

Open connector type : Approx.50
Micro connector type : Approx.100
108

Mounting on a panel

4-M3
24
77
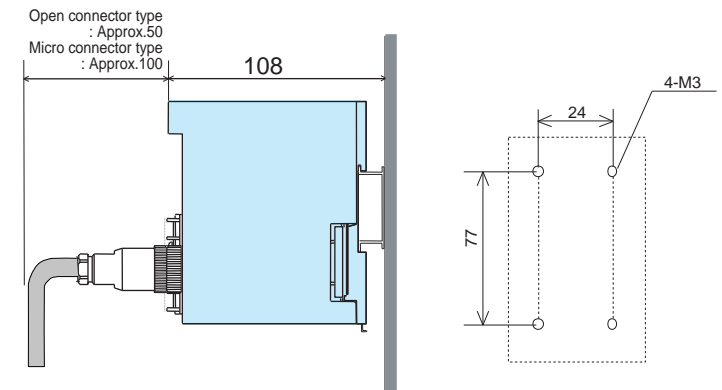
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