



RS-485 I/O Expansion Unit



Features

- One RS-485 Port for Multi-Drop Topology
- Hot Swap Allowed
- Auto Configuration
- LED Indicators for Fault Detection
- Switches to Configure Communication
- DCON Protocol
- 1/2/4/8 I/O Slots for I-87K Modules
- Operating Temperature: -25 ~ +75°C



Introduction

RU-87Pn is an unit to expand I/O via the RS-485. It is designed to be used in harsh and noisy environment, so the hardware is manufactured with wide power input range (10 ~ 30 Vdc), isolated power input and can operate under wide temperature (-25 ~ +75°C). To simplify installation and maintenance of I/O modules, it provides many useful features, such as: hot swap allowed, auto configuration, LED indicators for fault detection, dual watchdog to keep alive, programmable power on and safe values for safety.

There are more than 30 I/O modules supported with the unit, including analog input/output, digital input/output, counter, frequency I/O modules. We provide various software development kits (SDK) and demos, such as DLL, ActiveX, Labview driver, InduSoft driver, Linux driver, OPC server. The I-87K series I/O modules plugged in the RU-87Pn can be easily integrated into variant software system.

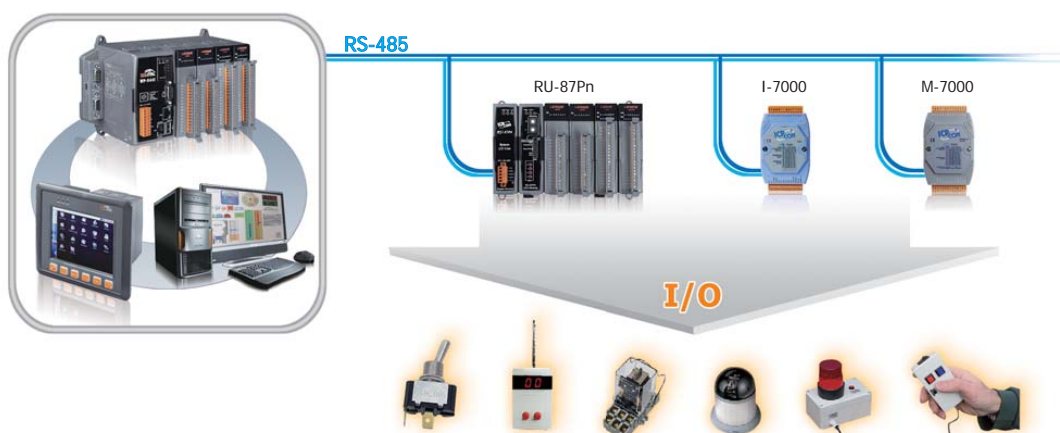
I/O Expansion Units

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Applications

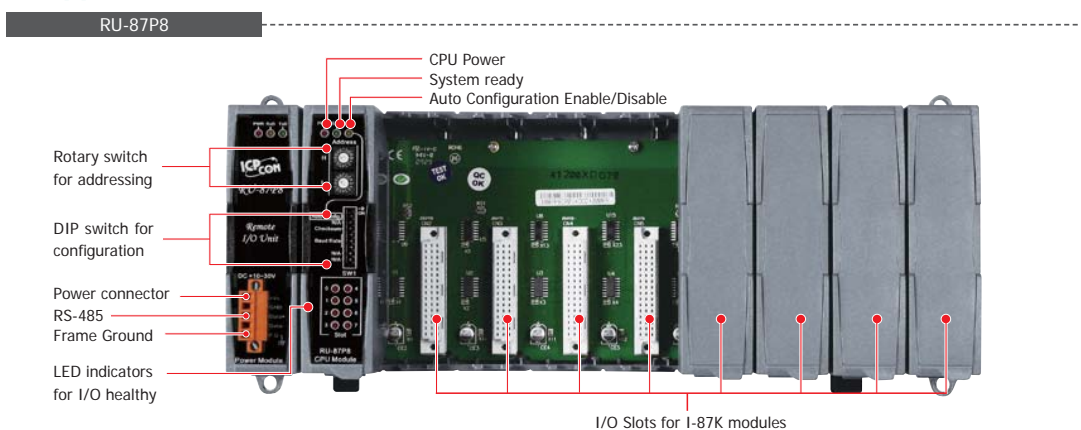
Rich I/O Expansion Ability



Specifications

Models	RU-87P1	RU-87P2	RU-87P4	RU-87P8
Interface Type (RS-485)				
Baud Rate	115200 bps maximum			
Distance	1.2 km (4000 ft) maximum			
Isolation	3000 Vdc			
ESD Protection	+/-4 K Contact Discharge and +/-8 K Air Discharge			
Communication Protocol	DCON Protocol (ASCII Format)			
Switch				
Rotary Switch	x2, For RS-485 address			
DIP Switch	8-bit x 1, For auto configuration, check sum and baud rate			
LED Indicators				
Power	Yes			
System Ready	Yes			
Auto Configuration	Yes			
Slot Status	Yes			
I/O Expansion Slots				
Hot Swap	Yes			
Auto Configuration	Yes			
Support Module Type	High profile I-87K module only			
Slots Numbers	1	2	4	8
Mechanical				
Dimensions (W x L x H)	64 mm x 120 mm x 110 mm	95 mm x 132 mm x 111 mm	188 mm x 132 mm x 111 mm	312 mm x 132 mm x 111 mm
Installation	DIN-Rail or Wall Mounting			
Environmental				
Operating Temperature	-25 ~ +75°C			
Storage Temperature	-30 ~ +80°C			
Ambient Relative Humidity	10 ~ 90% RH (non-condensing)			
Power				
Input Range	+10 ~ +30 Vdc			
Reverse Polarity Protection	Yes			
Isolation	1000 Vdc			
Frame Ground	Yes			
Consumption	1 W	1 W	2 W	2.4 W
Power Board Driving	5 W	8 W	30 W	30 W

Appearance



Ordering Information

RU-87P1 CR	1 slot I/O Expansion Unit (RoHS)
RU-87P2 CR	2 slots I/O Expansion Unit (RoHS)
RU-87P4 CR	4 slots I/O Expansion Unit (RoHS)
RU-87P8 CR	8 slots I/O Expansion Unit (RoHS)

Accessories

DP-660	24 Vdc/2.5 A, 60 W and 5 Vdc/0.5 A, 2.5 W Power Supply with DIN-Rail Mounting
DP-665	24 Vdc/2.7 A, 65 W Power Supply with DIN-Rail Mounting
DP-1200 CR	24 Vdc/5.0 A, 120 W Power Supply with DIN-Rail Mounting (RoHS)
MDR-20-24 CR	24 Vdc/1.0 A, 24 W Power Supply with DIN-Rail Mounting (RoHS)
I-7560 CR	USB to RS-232 Converter (RoHS)