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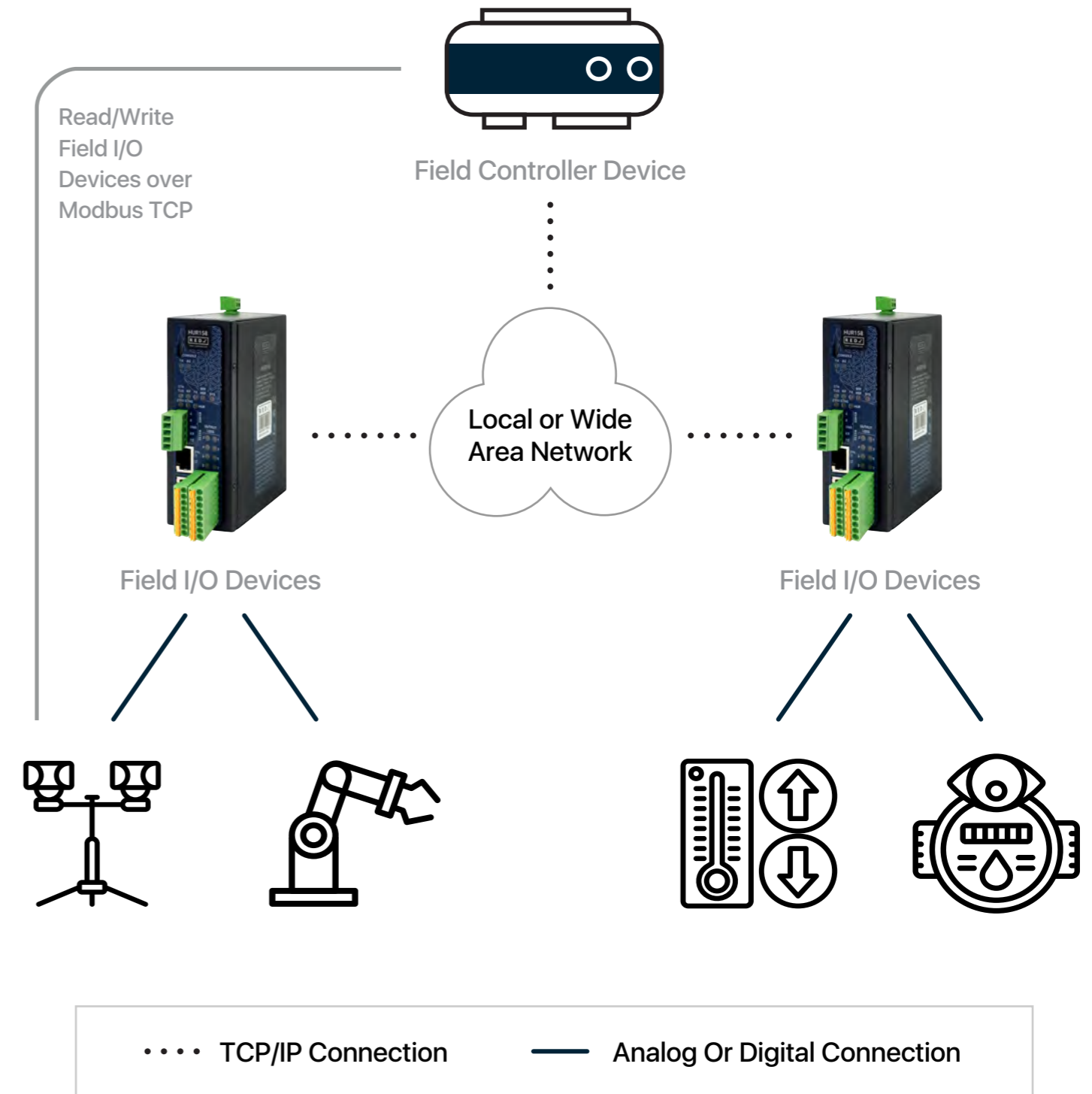
HUR168 Modbus TCP Remote I/O Devices

with 8 Channel Digital 5Amps 250VAC/30VDC Relay Output
and 2 x 10/100Base-T(x) Ports,
1 x RS232 and 1 x RS485 Serial Ports



Main Features

- Supports 2 x 10/100Base-T(X) ports
- Supports Full/Half-Duplex, auto MDI/MDI-X on each port
- Supports 1 x RS232 and 1 x RS485 Serial Connection up to 921600 Baud
- Embedded web interface for ease of use
- Instant switch between Server-Client Operating Modes with buttons
- Up to 10 client connection in Server Mode
- DHCP Server Capability
- Easy to follow Device Status on web interface
- Device Address changeable via web interface
- Modbus TCP to RTU Gateway functionality for Modbus packages with different addresses (Different than device own address)
- Output configuration can be defined by user for restart
- Output values can be saved and applied during auto restart
- I/O Mirror functionality: Device can duplicate output from a Modbus input device
- Easy to follow Device Parameters such as Device Up Time, Modbus read counter etc. on web interface
- Easy to follow Serial and Ethernet data packages on web interface
- Black List and White List based IP Filter in TCP Server Mode
- Firmware Upgrade over Web
- 2 firmware storage capability on same device (1 active only)
- 5-48V DC wide range power input (allows up to 60 V DC)
- Wide operating temperature range from -40 to 85 °C
- Rugged Metal IP-40 housing design
- DIN-Rail mounting



HUR Series Modbus TCP Remote Input/Output (I/O) Devices are designed for facilities of rugged industry and infrastructure.

HUR Series Modbus TCP Remote I/O Devices are tailored to perform various features such as wide temperature, wide range power input range... etc. HUR Series Modbus TCP Remote I/O Devices offers different I/O combinations, which provide greater flexibility and are compatible with many different applications that makes them the perfect choice for establishing a cost-effective remote I/O system.

Technical Specifications

ETHERNET SWITCH TECHNOLOGY

Ethernet Standards

- IEEE 802.3 for 10Base-T
- IEEE 802.3u for 100Base-T(X)
- IEEE 802.3x Flow Control

Mac Table

- 1K MAC address entry

Processing

- Store-and-Forward

Memory

- 448K bits packet
- buffer memory

MODBUS TCP CHARACTERISTICS

Modbus Protocol	<ul style="list-style-type: none">• Modbus TCP
Modbus Address	<ul style="list-style-type: none">• Default value is 0x01• Changeable via Web Interface
Modbus TCP to RTU Gateway Functionality	<ul style="list-style-type: none">• Modbus TCP packages with different addresses (Different than device own address) converted to Modbus RTU and sent to Serial interface and serial packages received are sent to Ethernet side after converting to Modbus TCP
Save Output Values Before Auto Restart	<ul style="list-style-type: none">• Default enabled and when system auto restarts the values are saved and applied after restart• Changeable via Web Interface
Save Output Values and Apply on Power Up	<ul style="list-style-type: none">• Default disabled, user can activate and enter parameters for each output individually• Changeable via Web Interface
I/O Mirror Functionality	<ul style="list-style-type: none">• Default disabled• If enabled, device can read input value of remote HUR device and duplicate those values as output
Monitoring Parameters	<ul style="list-style-type: none">• Modbus Read counter• Time counter (in seconds)• FW version• Device Up Time• Serial and TCP packages

CONNECTORS AND PORTS

Console Port	Micro USB connection for LOG in 115200 baud
10/100T(X) RJ45 Ports	Ethernet Connection on 2 ports
Serial Ports	<ul style="list-style-type: none">• 5 pin wired Terminal Connection• Tx, Rx, GND for RS232• A and B for RS485
Reset Buttons	Reset to Client and Reset to Server Operating modes buttons

I/O CONNECTORS AND INDICATORS

I/O Connector

- Terminal Connectors
Digital Outputs: 8 Channel Input terminals, polarity is not important
Total 16 connection pins.
- Digital 5Amp. Relay Output

Dielectric Strength

- Digital 5Amp. Relay Output:
- 3kV dielectric strength (between coil and contacts)
- Meets IEC61131-2 reinforce insulation

Output Status LEDs

- Shows which pin is ON and OFF for Digital Output versions.

LED INDICATORS

Power indicator

Power LED

10/100T(X) Indicators

Activity LEDs: ETH1, ETH2 and HUR (Activity of device itself)

System Indicators

Status LED, Tx and Rx of data LEDs and Server LED
(LED ON: Server Operating Mode, LED OFF: Client Operating Mode)

System LED

Flashes during normal operation of I/O module

Console Indicators

Tx and Rx of data LEDs





POWER

Input Range	5-48V DC wide range power input (Allows up to 60 V DC)
Reverse Polarity Protection	Available
Thermal Shutdown and Current Limit Protection	Available

PHYSICAL AND ENVIRONMENTAL CHARACTERISTICS

Enclosure	Metal, IP 40
Dimensions	43 x 95 x 124 (w x d x h) mm
Weight	~400gr
Storage Temperature	-65 to 150 °C
Operating Temperature	-40 to 85 °C
Operating Humidity	5% to 95% Non-condensing

Ordering Information

HUR168: 8 Channel Digital 5Amps 250VAC/30VDC Relay Output Modbus TCP Remote IO Device, 2x 10/100 T(x) ETH ports, 1 x RS232 & 1 x RS485, 5-48V (max. 60V) DC Power Input

PRODUCT SELECTION

Model	5-48V (max. 60V) DC Power input	100 - 240V AC (120 - 370V DC), 50Hz to 60Hz AC Power Input	2 x 10/100 T(x) ETH ports	1 x RS232 and 1 x RS485 Serial Ports	8 Channel 5-275V AC-DC, 100mA Digital Optocoupler Output	8 Channel Digital 5Amp. Relay Output	8 Channel 12-275 AC-DC, 60mA Digital Optocoupler Input	8 Channel 0-10V and 0-20mA Selectable Analog Input	5 Channel 4-20mA Analog Output
HUR158	●		●	●	●				
HUR168	●		●	●		●			
HUR258		●	●	●	●				
HUR268		●	●	●		●			
HUR358	●		●	●			●		
HUR458		●	●	●			●		
HUR558	●		●	●				●	
HUR595	●		●	●					●
HUR658		●	●	●				●	
HUR695		●	●	●					●