

Amano Ethernet iTRT

Intelligent IP Door Controller



KEY FEATURES

- iTRT Door Controllers are Supported in Nexus Lite (RS485 only), Nexus 220 and Amanonet Systems
- 100Mbps IP communication for Door Controllers is supported in Nexus 220 and Amanonet Systems
- Support for Amano Multi Discipline, Amano Wiegand and 3rd party Wiegand Readers
- Up to 10 000 Tag and 10 000 Transaction buffer with seven day expiration for full offline operation.
- Supports 1 Door in full APB or 2 Doors each with a Single Reader.
- End of Line (EOL) Sensing
- Anti-tamper switch.
- Supported door modes include locked, unlocked, supervisor unlock, open on first tag and open now.

PHYSICAL SPECIFICATIONS

| | |
|-------------------------------|-------------------------------------|
| Dimensions (H x W x D) | 5" x 7" x 2" (128mm x 166mm x 55mm) |
| Weight | 11 oz (314g) |
| Cabinet Material | Black ABS Plastic |

ENVIRONMENTAL SPECIFICATIONS

| | |
|-------------------------------------|---|
| Operating Temperature | -13°F to +140°F (-25°C to +60°C) |
| Storage Temperature | 40°F to +176°F (-40°C to +80°C) |
| Humidity Range | 0% to 95% relative humidity at +104°F (+40°C) non-condensing |
| CE Approval | EN301 489-1 and EN301 489-3 |
| FCC Approval | Pending |
| Dust & Splash Resistance | Designed to work in an indoor (dry) environment similar to IP40. The terminal is not sealed against water. |
| Drop Endurance | 3.28 ft (1m) drop (in packaging) |

AMANO®

Intelligent IP Door Controller

ELECTRICAL SPECIFICATIONS POWER

| | | |
|--|---|------------------|
| Input Voltage | 10 V DC to 30 V DC, polarity sensitive | |
| Power Requirements | Current (mA) | Power (W) |
| 12 V DC with no peripherals connected and relays off | 75 | 0.90 |
| 24 V DC with no peripherals connected and relays off | 40 | 0.96 |
| Permissible Input Supply Ripple Voltage (Max) | 1 V pp at 50 Hz | |
| Power Input Protection | Reverse polarity over-voltage and over-current protection are provided on the Terminal. | |

RELAY POWER REQUIREMENTS

| | |
|---------------------------------|--------------------------------------|
| Relay Power Requirements | An additional ~0.4 W per Relay used. |
|---------------------------------|--------------------------------------|

REAL TIME CLOCK BACKUP BATTERY (RTC)

| | |
|---------------------|---|
| Battery Type | 1 x 3V, CR2032, Lithium cell battery. |
| Battery Life | 2 Years with power OFF. 5 years with Power ON. 5 Years Storage with Battery Tab in place. |

TERMINAL BUS

| | | |
|--------------------------------|--|-------------|
| Electrical Interface | TCP/IP or RS485 | RS485 |
| Data Rate | 10/100 or 38 400 Baud | 38 400 Baud |
| Data Format | 8 data bits | |
| Communications Protocol | 8 data bits, no parity, 1 stop bit | |
| Line Termination | Provision is made for line termination | |

READER OPTIONS

| | |
|--------------------------------|---|
| Power Output | 12 V DC and 5 V DC (selectable) at maximum 200 mA |
| Supported Modes | Tag + PIN-code or Reason Code |
| Baud Rate | 9600 |
| Data Format | 8 data bits, no parity, 1 stop bit |
| Electrical Interface | TTL Full Duplex |
| Communications Protocol | Amano Proprietary Protocol |

DIGITAL INPUTS

| | |
|-----------------------------------|------------------|
| Input Type | 4 Dry contact |
| Detection Resistance Range | < 2 kOhm |
| Protection Range | +15 V continuous |



RELAYS

| | |
|-------------------------------|---|
| Relay Output | 2 Relays, Form C, each with NO, COM and NC Contacts |
| Contact Rating | 10A at 28VDC 5A at 220VAC 10A at 120VAC |
| Operations | 100 000 Minimum |
| Power Consumption (per Relay) | ~ 0.4W |

PROCESSOR

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|-----------|-------------------------------------|
| Type | 32-bit ARM7TDMI operating at 72 MHz |
| Total RAM | 58 K Byte |
| Flash | 256 K Byte |

OTHER

| | |
|--------------------|-----------------------|
| Anti-tamper Switch | 1 Internal Switch |
| Baud Rate | Factory-set to 38 400 |
| Mode | Receive (Slave Mode) |

USER INTERFACES

| | |
|------------------------------|------------------------------|
| Status Indicator | |
| Status LED | Continuous Red. |
| Upgrade Mode | Flashing Red (Steady). |
| RS485 Communications Failure | Flashing Red (Intermittent). |

DIAGNOSTIC INDICATORS

| | |
|-------------------|---|
| Relay [2] | Continuous Red on activation of the Relay. |
| Relay [1] | Continuous Red on activation of the Relay. |
| Reader 2, RTE [2] | Continuous Green on detected contact closure. |
| Reader 2, DOS [1] | Continuous Green on detected contact closure. |
| Reader 1, RTE [2] | Continuous Green on detected contact closure. |
| Reader 1, DOS [1] | Continuous Green on detected contact closure. |
| RS485 RX | Flashing Green as per incoming data. |
| RS485 TX | Flashing Red as per outgoing data. |

OFFLINE OPERATION

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|---------------------------------------|--|
| Tag capacity | 10,000 |
| Buffered Transaction | 10 000 transactions per Reader. 20,000 per Door Controller |
| Features Support while offline | RTE Door Open sensing Inhibit Scanner (Local connection only) |
| Door Open Sensor Functions | Input Cut Input Shorted Door Closed Door Open Normal Door Open Too Long Door Not Opened Door Forced |
| Input Functions | Request To Exit Emergency Mode On Emergency Mode Off Lockdown Mode On Lockdown Mode Off Inhibited by Input Alarm |
| Terminal Modes | Terminal Locked Terminal Unlocked |
| Tag Validation | Unknown Tag PIN Duress Suspended Blacklisted Expired Time Pattern Valid Location Hosted Visitor Visitor Reason Code Allowed Time Violation Out Allowed Special 1/2 |
| Other | Tamper Special Key Code 1/2 |

ORDERING INFORMATION

XRT920-0-0-AC Amano IP iTRT Door Controller

Amano reserves the right to change specifications without prior notice.

WARRANTY: Amano warrants this product against defects in material and workmanship under normal use and service for 36months from the date of shipment. Full warranty statement available on request.

