

# iDS6

Industrial 4 Port RS232/422/485 to 2 Port Ethernet Serial Device Server

## Product Overview



iDS6 is an industrial device server with 4 serial ports RS-232/422/485 and 2 redundant Ethernet local area network (LAN) ports for converting signals between serial and Ethernet networks. The redundancy feature provides protection against failure of an Ethernet LAN port, by automatically switching to another LAN port within 10ms to guarantee delivery via an alternative path.

iDS6 also supports an Ethernet switch mode (RS 485) allowing users to daisy chain several serial servers reducing the usage of Ethernet switch ports.

Another redundancy feature in the iDS6 is the simultaneous transfer of data of up to 5 host PCs. This feature ensures that critical data is sent via alternative Ethernet paths and to multiple host PC's ensuring data is not compromised by the Ethernet connections or potential host PC failure.

With Network Address Translation (NAT) pass through functionality, users are able to manage the iDS6 inside or outside the NAT router, making it easy for different IP domain users to use the device server.

The iDS Manager software can be used to configure the serial device server.



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# Features

Table 1. Features

| Feature  |   |
|--|---|
| Supports:  | <ul style="list-style-type: none"><li>• NAT-pass through: User can manage IDS6 through NAT router</li><li>• Dual redundant Ethernet ports</li><li>• Redundant multiple host devices: 5 simultaneous in Virtual COM</li><li>• 4 IP Ranges: UDP</li><li>• Secure Management by HTTPS and SSH</li><li>• IP security table for preventing unauthorized access</li></ul> |
| Operating modes:   | <ul style="list-style-type: none"><li>• Virtual COM</li><li>• TCP Server</li><li>• TCP Client</li><li>• UDP</li></ul>   |
| Dual Input Power Supplies  |   |
| IP-40 Galvanized Steel Housing   |   |
| Multiple alarm notifications methods (Syslog, SMTP mail & SMTP trap, Fault Event Notification and Fault LED / Relay) |   |
| Configurable by centralized management (iDS Manager) , Web UI, and SSH   |   |
| Supports Windows NT / 2000 / XP / 2003 /VISTA/Windows 7(32/64bit)/Windows 10 (32/64bit) OS                           |   |
| DIN rail and panel mount   |   |



# Product Specifications

**Table 2. Technical Specification**

| Description                         | Specification   |
|-------------------------------------|---|
| <b>Ports</b>                        |   |
| 10/100 Base-T(X) RJ45 Auto MDI/MDIX | 2   |
| RS232/422/485 DB9                   | 4   |
| <b>Serial Port 1</b>                |   |
| Connector                           | DB9   |
| Operation Mode                      | RS232/422/ 4(2)-Wire RS-485, which can be configured using the iDS Manager or secure Web UI   |
| Serial Baud Rate                    | 110 bps to 460.8 Kbps   |
| Data Bits                           | 5, 6, 7, 8  |
| Stop Bits                           | 1, 2 (1.5)  |
| Parity                              | None, Odd, Even, Mark, Space  |
| Flow Control                        | XON/XOFF, RTS/CTS, DTR/DSR  |
| RS-232                              | DCD, RxD, TxD, DTR, GND, DSR, RTS, CTS, RI  |
| RS-422                              | RxD-, RxD+, TxD+, TxD, GND  |
| RS-485 (4 wire)                     | 4 wire: RxD-, RxD+, TxD+, TxD, GND  |
| RS-485 (2 wire)                     | 2 wire: Data+, Data-, GND   |
| <b>Network Protocol</b>             |   |
| Protocol                            | ICMP, IP, TCP, UDP, DHCP/ BOOTP, SSH, DNS, SNMP V1/V2c, HTTPS, SMTP, DDNS, PPPoE  |
| <b>Power</b>                        |   |
| Input Power                         | Dual Input 10-48VDC; Single Input 36-75VDC with Single 10-48VDC Backup; Single Input 110-370VDC or 90-264VAC with Single 10-48VDC Backup  |
| Power Consumption (Typ.)            | 5.5 W   |
| Overload Current Protection         | Present   |
| Reverse Polarity Protection         | Present   |
| <b>Physical Characteristics</b>     |   |
| Enclosure                           | IP-40 Galvanized Steel  |
| Dimensions (W x D x H)              | 101.8 (W) x 126.0 (D) x 160.7 (H) mm (4.01 x 4.96 x 6.96 inches) DIN rail mount<br>114.3 (W) x 129.2 (D) x 203.2 (H) mm (4.50 x 5.09 x 8.00 inches) Panel mount 1<br>114.8 (W) x 114.3 (D) x 203.2 (H) mm (4.52 x 4.50 x 8.00 inches) Panel mount 2 |
| Unit Weight (g)                     | ~2500 g   |



**Table 3. Compliance Specifications**

| Type                      | Standards  |
|---------------------------|--|
| Electromagnetic Emissions | FCC Part 15, Class A, CISPR Class A (EN55022)  |
| Electromagnetic Immunity  | EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11 |
| Safety Standards          | EN60950-1  |
| Operating Environment     | -40°C to +85°C (-40° to 185°F) (no fans)<br>EN 60068-2-21  |
| Storage Environment       | -40°C to +85°C (-40° to 185°F)<br>EN 60068-2-14  |
| Operating Humidity        | 5% to 95% Non-condensing<br>EN 60068-2-30  |
| Shock                     | IEC60068-2-27  |
| Free Fall                 | IEC60068-2-32  |
| Vibration                 | IEC60068-2-32  |
| Warranty                  | 5 years  |

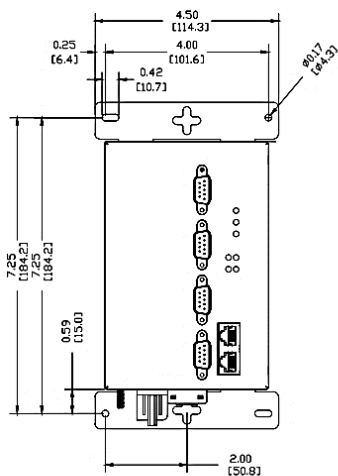
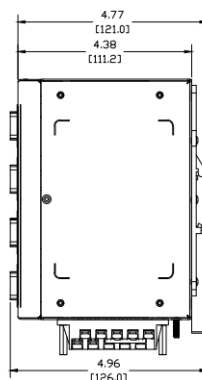
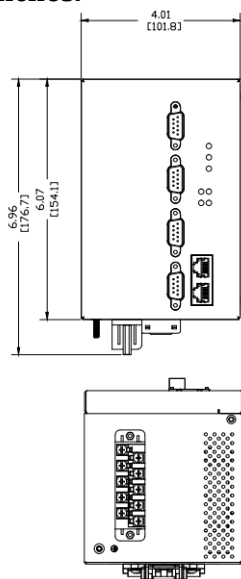
**Table 4. Standards and Management**

| Description    | Specification  |   |  |
|----------------|--|---|--|
| IEEE Standards | IEEE 802.3 for 10Base-T<br>IEEE 802.3u for 100Base-TX<br>IEEE 802.3x for Flow control  |   |  |
| RFC Compliance | <ul style="list-style-type: none"> <li>• RFC 768: UDP</li> <li>• RFC 791: IPv4</li> <li>• RFC 792: ICMP</li> <li>• RFC 793: TCP</li> </ul> | <ul style="list-style-type: none"> <li>• RFC 1166: IP Addresses</li> <li>• RFC 1901,1902-1907 SNMPv2</li> <li>• RFC 2131, 2132: DHCP</li> <li>• RFC 1157: SNMPv1</li> </ul> | <ul style="list-style-type: none"> <li>• RFC 2571: SNMP Management</li> <li>• RFC 4250-4253 SSH</li> <li>• RFC 5246 TLS Protocol (HTTPS)</li> <li>• RFC 5321 SMTP</li> </ul> |

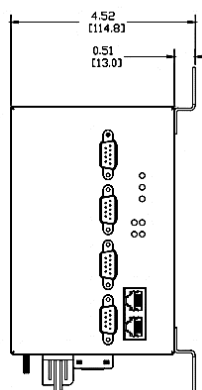
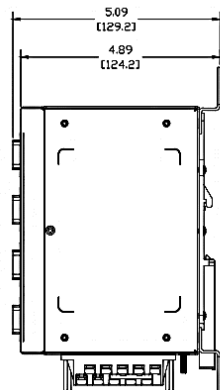


# Dimensions

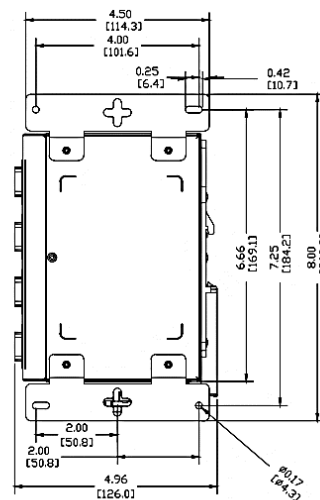
All dimensions are shown in inches.



PANEL MOUNT  
BRACKET INSTALLED AT REAR



PANEL MOUNT  
BRACKET INSTALLED AT SIDE





# Ordering Information

| Base | Power Supply | Mount | Ethernet Port 1 | Ethernet Port 2 | Serial Port 3-6 | Conformal Coating | Description  |
|------|--------------|-------|-----------------|-----------------|-----------------|-------------------|--|
| iDS6 | LV           | D     | 1RJ45           | 1RJ45           | 4DB09           | C1                |  |
| iDS6 |              |       |                 |                 |                 |                   | Core assembly and packaging                                      |
|      | LV           |       |                 |                 |                 |                   | Dual Input 10-48VDC  |
|      | MV           |       |                 |                 |                 |                   | Single Input 36-75VDC with Single 10-48VDC Backup                |
|      | HV           |       |                 |                 |                 |                   | Single Input 110-370VDC or 90-264VAC with Single 10-48VDC Backup |
|      |              | D     |                 |                 |                 |                   | DIN Rail Mounting  |
|      |              | P     |                 |                 |                 |                   | Panel Mounting   |
|      |              | N     |                 |                 |                 |                   | No Mounting Hardware   |
|      |              |       | 1RJ45           | 1RJ45           |                 |                   | 1 X 10/100Base-T(X) RJ45   |
|      |              |       |                 |                 | 4DB09           |                   | 4 X RS232/422/485 DB9  |
|      |              |       |                 |                 |                 | C1                | Conformal Coating  |

**Example Order Code**      **iDS6-LV-D-1RJ45-1RJ45-4DB09-C1**

**Description:**      **iDS6 - 6 Port Device Server, (Power Supply) Dual Input 10-48VDC, (Mount) DIN Rail Mounting, (Ethernet Port 1) 1 X 10 / 100Base-T(X) RJ45, (Ethernet Port 2) 1 X 10/100Base-T(X) RJ45, (Serial Port 3-6) 4 X RS232/422/485 DB9, C1- added for Conformal Coating**