

# Rockwell Automation Support Center

## 29402 - TCP/UDP Ports Used by Rockwell Automation Products

Access Level: Everyone

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### Problem

This document is intended to be used as a reference for network administrators and contains a list of all the static TCP/UDP ports used by Rockwell Automation hardware and software products.

Many Rockwell Software products rely on DCOM, which uses dynamic TCP port assignments.

### Solution

The following table has been created to show the communication ports used by individual products. This table does not include any ports necessary for the proper functioning of third party products used in conjunction with Rockwell products, Microsoft Windows, etc.

When using any piece of FactoryTalk software (for example, FactoryTalk View SE), it is important to note the reliance of the individual software piece upon the FactoryTalk Services Platform. Thus, when determining which ports to open, include both of the following:

Redundant Modules follow the same TCP / UDP ports as the standard Modules.

- Product specific ports
- FactoryTalk Services Platform ports

| Port  | Type | Protocol   | Products   | Comments  |
|-------|------|------------|--|---|
| 23    | TCP  | Telnet     | Trusted<br>AADvance before release 1.3   | Diagnostic command line interface<br>(see also 55555)                                       |
| 25    | TCP  | SMTP       | 1769-L35E , 1769-L32E,<br>1756-ENBT, 1756-EN2T,<br>1756-EWEB,<br>1768-ENBT, 1768-EWEB,<br>1788-ENBT<br>1763-L16x<br>1766-L32x<br>FactoryTalk AssetCentre<br>FactoryTalk Transaction Manager<br>RSBizWare<br>RSSQL<br>RSView Messenger                                      | Outbound email only   |
| 67-68 | UDP  | DHCP/BOOTP | 1756-ENET, 1756-ENBT<br>1756-EWEB, 1756-EN2T,<br>1794-AENT<br>1734-AENT<br>1769-L35E, 1769- L32E<br>1788-ENBT<br>1761-NET-ENI<br>1785-LXXE<br>1785-ENET<br>1747-L55x<br>1791ES,<br>1763-L16x<br>1766-L32x<br>5820-EI<br>PowerFlex Drives<br>PowerMonitor 3000<br>PanelView | Client only   |
| 69    | UDP  | TFTP       | 5820-EI  | For binary download, used in conjunction with<br>BootP                                      |
| 80    | TCP  | HTTP       | 1756-ENET<br>1756-ENBT<br>1756-EWEB<br>1794-AENT<br>1734-AENT<br>1769-L35E, 1769-L32E<br>1788-ENBT<br>1761-NET-ENI<br>1785-LXXE<br>1785-ENET<br>1747-L55x<br>1763-L16x   | FactoryTalk ViewPoint and VantagePoint EMI<br>server can use any other custom assigned port |

|                       |         |                     |  |   |
|-----------------------|---------|---------------------|--|---|
|                       |         |                     | 1766-L32x<br>PowerFlex Drives<br>PowerMonitor 3000<br>PanelView<br>RSBizWare<br>RSView32<br>FactoryTalk View SE<br>RSViewSE<br>FactoryTalk VantagePoint<br>FactoryTalk ViewPoint   |   |
| 123                   | UDP     | NTP                 | PowerMonitor 3000<br>AADvance  | Network time protocol   |
| 135                   | TCP     | RPC/Endpoint Mapper | FactoryTalk<br>RSMACC  | DCOM endpoint mapper  |
| 161                   | UDP     | SNMP                | 1756-ENET<br>1756-ENBT<br>1794-AENT<br>1734-AENT<br>1769-L35E, 1769-L32E<br>1788-ENBT<br>1761-NET-ENI<br>1785-LXXE<br>1785-ENET<br>1747-L55x<br>1766-L32x<br>5820-EI<br>PowerFlex Drives<br>PowerMonitor 3000<br>PanelView |   |
| 300-400               | UDP     | Proprietary         | PowerMonitor 3000  | Master/Slave configuration  |
| 400-402               | TCP     | RPC                 | FactoryTalk Transaction Manager RSSQL  | Transaction Manager, Compression Server, and Configuration Server   |
| 443                   | TCP     | HTTPS               | FactoryTalk ViewPoint  | When using web server with secure Certificate   |
| 502                   | TCP     | ModbusTCP           | AADvance<br>Trusted  | Master or slave<br>Slave only   |
| Dynamic (1024-65535+) | TCP     | DCOM                | FactoryTalk  | DCOM dynamic ports  |
| 1089                  | TCP/UDP | ff-annunc           |  | Foundation Fieldbus   |
| 1090                  | TCP/UDP | ff-fms              |  |   |
| 1091                  | TCP/UDP | ff-sm               |  |   |
| 1132                  | TCP     | SNCP                | AADvance   | Safety Network Control Protocol, used by OPC, workbench debugger and binding networks   |
| 1330                  | TCP     | mnaprpc             | FactoryTalk  | Object RPC  |
| 1331                  | TCP     | maserv              | FactoryTalk  | Service control   |
| 1332                  | TCP     | maserverping        | FactoryTalk  | Server health   |
| 1433                  | TCP     |                     | FactoryTalk AssetCentre (server)<br>FactoryTalk VantagePoint RSMACC  | SQL Server communication (default port)   |
| 1434                  | UDP     |                     | FactoryTalk AssetCentre (server)<br>FactoryTalk VantagePoint   | Recommended static destination port for MSSQL to minimize the number of ports open on a firewall. See <a href="#">MS Knowledgebase article 287932</a> .   |
| 1947                  | TCP/UDP |                     | SafeNet Sentinel Local License Manager   | Windows Service installed by Sentinel USB HASP driver. This service is not required for USB dongle to function. For more information and to disable this service see <a href="#">AID-570831</a> |
| 2000                  | TCP     | Modbus RTU          | AADvance (Slave only)<br>Trusted (Master or slave, used for OPC and SOE)   | RTU packaged in serial stream. Other ports may be assigned.   |
| 2010, 2011            | UDP     | Discover tool       | AADvance   | Used to configure systems. The tool sends broadcast to 2010 and systems reply to port 2011  |
| 2222                  | UDP     | EtherNET/IP         | 1756-ENBT<br>1794-AENT<br>1734-AENT<br>1769-L35E, 1769-L32E<br>1788-ENBT   | I/O communications used only by products that support I/O over EtherNet/IP.   |
| 2222                  | TCP     | CSP                 | 1785-Lxxe<br>1785-ENET<br>1771-DMC(x)<br>1747-L55x<br>5820-EI  | Port 2222 is the source port for connections  |

|               |         |              |   |  |
|---------------|---------|--------------|---|--|
|               |         |              | PowerMonitor II<br>RSLinx Classic<br>INTERCHANGE  |  |
| 3060          | TCP     | rsadirft     | FactoryTalk   | Directory Server file transfer   |
| 3622          | TCP/UDP | ff-lr-port   |   |  |
| 4000          | UDP     | Peer to Peer | Trusted   | Original simplex protocol  |
| 4120          | TCP     | RPC          | RSBizWare   | Production Server  |
| 4121          | TCP     | RPC          | RSBizWare   | Server Manager   |
| 4122          | TCP     | RPC          | RSBizWare   | PlantMetrics Server  |
| 4123          | TCP     | RPC          | RSBizWare   | Task Manager   |
| 4124          | TCP     | RPC          | RSBizWare   | Scheduler Server   |
| 4125          | TCP     | RPC          | RSBizWare   | Scheduler CTP Server   |
| 5000          | UDP     | Peer to Peer | Trusted<br>AADvance   | Enhanced (new) protocol  |
| 5450          | TCP     |              | FactoryTalk Historian Site Edition  | PI Network Manager   |
| 5454          | TCP     |              | FactoryTalk Historian Site Edition  | Analysis Framework v1.x  |
| 5455          | TCP     |              | FactoryTalk Historian Site Edition  | Analysis Framework v1.x  |
| 5456          | TCP     |              | FactoryTalk Historian Site Edition  | ACE 2 scheduler  |
| 5457          | TCP     |              | FactoryTalk Historian Site Edition  | Asset Framework Server   |
| 5458          | TCP     |              | FactoryTalk Historian Site Edition  | PI Notifications   |
| 5459          | TCP     |              | FactoryTalk Historian Site Edition  | Asset Framework to OLEDB Enterprise  |
| 6000          | TCP     | Workbench    | Trusted   | Online debugger  |
| 6543          | TCP     | rnaalarming  | FactoryTalk   | Alarming Server  |
| 7002-7004     | TCP     |              | FactoryTalk AssetCentre (default)   | FactoryTalk AssetCentre services   |
| 7600          | TCP     |              | FactoryTalk   | Event Multiplexor  |
| 7700          | TCP     |              | FactoryTalk   | Event Server   |
| 7710          | TCP     |              | FactoryTalk   | Directory Server   |
| 7720          | TCP     |              | RSView SE<br>FactoryTalk View SE  | HMI Server   |
| 7721          | TCP     |              | RSView SE<br>FactoryTalk View SE  | Server Framework   |
| 7722          | TCP     |              | RSView SE<br>FactoryTalk View SE  | HMI Activation   |
| 7723          | TCP     |              | RSView SE<br>FactoryTalk View SE  | Historical Data Log Reader   |
| 8080          | TCP     | HTTP         | RSBizWare   | Production Server, reports   |
| 8081          | TCP     | HTTP         | RSBizWare   | Server Manager   |
| 8083          | TCP     | HTTP         | CTP Server  |  |
| 10001 - 10006 | TCP     | Serial data  | AADvance  | Transparent Communication Interface, where an Ethernet host can talk through AADvance to a serial port.                      |
| 27000 - 27009 | TCP     | TCP/IP       | FactoryTalk Activation Server; FactoryTalk Activation Manager   | See <a href="#">AID-35717</a> and <a href="#">AID-184922</a> for more Applications required to run FLEXSVR.EXE and LMGRD.EXE |
| 44818         | TCP/UDP | EtherNET/IP  | 1756-ENET<br>1756-ENBT<br>1756-EWEB<br>1794-AENT<br>1734-AENT<br>1769-L35E, 1769-L32E<br>1788-ENBT<br>1761-NET-ENI<br>1785-LXXE<br>1785-ENET<br>1747-L55x<br>1763-L16x<br>1766-L32x<br>PowerMonitor 3000<br>PanelView<br>RSLinx Classic<br>RSLinx Enterprise<br>INTERCHANGE (rsicd) | Messaging, data transfer, upload/download, peer messaging, etc. Used largely by RSLinx.                                      |
| 49281         | TCP     | TCP/IP       | FactoryTalk Live Data<br>FactoryTalk View SE HMI Tag server   | HMI Tag Server   |
| 55555         | TCP     | Telnet       | AADvance from release 1.3   | Diagnostic command line interface  |

|       |     |        |                          |                           |
|-------|-----|--------|--------------------------|---------------------------|
| 60093 | TCP | TCP/IP | FactoryTalk Diagnostics  | FactoryTalk Diagnostics   |
| 65207 | TCP | TCP/IP | FactoryTalk VantagePoint | Incuity Server Advertiser |

You may also want to see the ordered list of port assignments (similar to IANA port assignments) in the topic below.

### Rockwell Ports

Below is the list of ports defined by Rockwell software and hardware products.

|           |                     |  |
|-----------|---------------------|--|
| 25/TCP    | SMTTP               | Outgoing email: 1769-L35E, 1769-L32E, FactoryTalk AssetCentre, FactoryTalk Transaction Manager, RSBizWare, RSSQL, RSView Messenger   |
| 67-68/UDP | DHCP/BOOTP          | Client only: 1756-ENET, 1756-ENBT, 1756-EWEB, 1794-AENT, 1734-AENT, 1769-L35E, 1769-L32E, 1788-ENBT, 1761-NET-ENI, 1785-LXXe, 1785-ENET, 1757-L55x, 5820-EI, PowerFlex Drives, PowerMonitor 3000, PanelView  |
| 69/UDP    | TFTP                | Used with BootP: 5820-EI   |
| 80/TCP    | HTTP                | 1756-ENET, 1756-ENBT, 1756-EWEB, 1794-AENT, 1734-AENT, 1769-L35E, 1769-L32E, 1788-ENBT, 1761-NET-ENI, 1785-LXXE, 1785-ENET, 1747-L55x, 1763-L16x, PowerFlex Drives, PowerMonitor 3000, PanelView, RSBizWare, RSView32, FactoryTalk View SE, RSViewSE |
| 123/UDP   | NTP                 | Network time Protocol: PowerMonitor 3000   |
| 135/TCP   | RPC/Endpoint mapper | DCOM Endpoint Mapper: FactoryTalk, RSMACC  |
| 161/UDP   | SNMP                | 1756-ENET, 1756-ENBT, 1794-AENT, 1734-AENT, 1769-L35E, 1769-L32E, 1788-ENBT, 1761-NET-ENI, 1785-LXXE, 1785-ENET, 1747-L55x, 5820-EI, PowerFlex Drives, PowerMonitor 3000, PanelView  |
| 300-400   | Proprietary         | Master/Slave configuration for PowerMonitor 3000   |
| 400/tcp   |                     | RSSql Transaction Manager  |
| 401/tcp   |                     | RSSql Compression Server   |
| 402/tcp   |                     | RSSql Configuration Server   |
| 1089/tcp  | ff-annunc           | FF Annunciation  |
| 1089/udp  | ff-annunc           | FF Annunciation  |
| 1090/tcp  | ff-fms              | FF Fieldbus Message Specification  |
| 1090/udp  | ff-fms              | FF Fieldbus Message Specification  |
| 1091/tcp  | ff-sm               | FF System Management   |
| 1091/udp  | ff-sm               | FF System Management   |
| 1330/tcp  | maorpc              | FactoryTalk Object RPC   |
| 1331/tcp  | maserv              | FactoryTalk Service control  |
| 1332/tcp  | maserverping        | FactoryTalk Server health  |
| 1433/TCP  |                     | SQL Server comms: RSMACC, FactoryTalk AssetCentre  |
| 1434/UDP  |                     | SQL Server destination port: FactoryTalk AssetCentre   |
| 2221/tcp  | rockwell-csp1       | Rockwell CSP1  |
| 2221/udp  | rockwell-csp1       | Rockwell CSP1  |
| 2222/tcp  | rockwell-csp2       | Rockwell CSP2  |
| 2222/udp  | rockwell-csp2       | Rockwell CSP2  |
| 2223/tcp  | rockwell-csp3       | Rockwell CSP3  |
| 2223/udp  | rockwell-csp3       | Rockwell CSP3  |
| 3060/tcp  | madirft             | FactoryTalk Directory Server file transfer   |
| 3622/tcp  | ff-lr-port          | FF LAN Redundancy Port   |
| 3622/udp  | ff-lr-port          | FF LAN Redundancy Port   |

|           |                    |   |
|-----------|--------------------|---|
| 4120/tcp  |                    | Bizware Production Server               |
| 4121/tcp  |                    | Bizware Server Manager                  |
| 4122/tcp  |                    | Bizware PlantMetrics Server             |
| 4123/tcp  |                    | Bizware Task Manager                    |
| 4124/tcp  |                    | Bizware Scheduler                       |
| 4125/tcp  |                    | Bizware CTP Server                      |
| 6543/tcp  | RnaAlarmingService | FactoryTalk Alarming Server             |
| 7002/TCP  |                    | FactoryTalk AssetCentre services        |
| 7003/TCP  |                    | FactoryTalk AssetCentre services        |
| 7004/TCP  |                    | FactoryTalk AssetCentre services        |
| 7600/tcp  |                    | FactoryTalk Event Multiplexor           |
| 7700/tcp  |                    | FactoryTalk Event Server                |
| 7710/tcp  |                    | FactoryTalk Directory Server            |
| 7720/tcp  |                    | RSViewSE HMI Server                     |
| 7721/tcp  |                    | RSViewSE Server Framework               |
| 7722/tcp  |                    | RSViewSE HMI Activation                 |
| 7723/tcp  |                    | RSViewSE HMI Historical Data Log Reader |
| 8080/tcp  |                    | Bizware HTTP Product Server             |
| 8081/tcp  |                    | Bizware HTTP Server Manager             |
| 8083/tcp  |                    | Bizware HTTP CTP Server                 |
| 27000/tcp |                    | FlexLM Server                           |
| 27001/tcp |                    | FlexLM Server                           |
| 27002/tcp |                    | FlexLM Server                           |
| 27003/tcp |                    | FlexLM Server                           |
| 27004/tcp |                    | FlexLM Server                           |
| 27005/tcp |                    | FlexLM Server                           |
| 27006/tcp |                    | FlexLM Server                           |
| 27007/tcp |                    | FlexLM Server                           |
| 27008/tcp |                    | FlexLM Server                           |
| 27009/tcp |                    | FlexLM Server                           |
| 44818/tcp | rockwell-encap     | Rockwell Encapsulation                  |
| 44818/udp | rockwell-encap     | Rockwell Encapsulation                  |

**Note:**

To determine if Ports are open or Locked down you can run the Port Probe utility attached to the following AID [39459 - TCP Port Probe Utility](#)  
For TCP/UDP ports used by GuardPLC products, see AID [59004 - TCP/UDP ports used by GuardPLC products](#).

For information on how to manually open TCP/UDP ports, refer to AID [59857 - How to manually open TCP/UDP ports](#).

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