

TCP and UDP Port Configuration

Quick Reference Guide

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 Automation® products, Microsoft® products, etc.

When using any piece of FactoryTalk® software, 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 AADvance™ before release 1.3	Diagnostic command line interface (see also 55555)
25	TCP	SMTP	1769-L35E, 1769-L32E, 1756-ENBT, 1756-EN2T, 1756-EWEB, 1768-ENBT, 1768-EWEB, 1788-ENBT, 1763-L16x, 1766-L32x, FactoryTalk AssetCentre, FactoryTalk Transaction Manager, RSBizWare, RSSQL, RSView Messenger	Outbound email only
67-68	UDP	DHCP/BOOTP	1756-ENET, 1756-ENBT, 1756-EWEB, 1756-EN2T, 1794-AENT, 1734-AENT, 1769-L35E, 1769-L32E, 1788-ENBT, 1761-NET-ENI, 1785-LXXE, 1785-ENET, 1747-L55x, 1791ES, 1763-L16x, 1766-L32x, 5820-EI, PowerFlex Drives, PowerMonitor 3000, PanelView	Client only
69	UDP	TFTP	5820-EI	For binary download, used in conjunction with BootP
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, 1766-L32x, PowerFlex Drives, PowerMonitor 3000, PanelView, RSBizWare, RSView32, FactoryTalk View SE, RSViewSE, FactoryTalk VantagePoint, FactoryTalk ViewPoint	FactoryTalk ViewPoint and VantagePoint EMI server can use any other custom assigned port
123	UDP	NTP	PowerMonitor 3000, AADvance	Network time protocol
135	TCP	RPC/Endpoint Mapper	FactoryTalk, RSMACC	DCOM endpoint mapper
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, 1766-L32x, 5820-EI, PowerFlex Drives, PowerMonitor 3000, 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 Trusted	Master or slave 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	rnaprpc	FactoryTalk	Object RPC
1331	TCP	rnaserv	FactoryTalk	Service control
1332	TCP	rnaserverp-ing	FactoryTalk	Server health
1433	TCP		FactoryTalk AssetCentre (server) FactoryTalk VantagePoint RSMACC	SQL Server communication (default port)
1434	UDP		FactoryTalk AssetCentre (server) FactoryTalk VantagePoint	Recommended static destination port for MSSQL to minimize the number of ports open on a firewall. See MS Knowledgebase article 287932.
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 AID-570831
2000	TCP	Modbus RTU	AADvance (Slave only) 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, 1794-AENT, 1734-AENT 1769-L35E, 1769-L32E, 1788-ENBT	I/O communications used only by products that support I/O over EtherNet/IP.
3060	TCP	rnadirft	FactoryTalk	Directory Server file transfer
3622	TCP/UDP	ff-lr-port		
4000	UDP	Peer to Peer	Trusted	Original simplex protocol
4120	TCP	TCP	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 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 FactoryTalk View SE	HMI Server
7721	TCP		RSView SE FactoryTalk View SE	Server Framework
7722	TCP		RSView SE FactoryTalk View SE	HMI Activation
7723	TCP		RSView SE 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 AID-35717 and AID- 184922 for more Applications required to run FLEXSVR.EXE and LMGRD.EXE
44818	TCP/UDP	EtherNET/IP	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,1766-L32x,PowerMonitor 3000,PanelView, RSLinx Classic, RSLinx Enterprise, INTERCHANGE (rsicd)	Messaging, data transfer, upload/download, peer messaging, etc. Used largely by RSLinx.
49281	TCP	TCP/IP	FactoryTalk Live Data 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

Rockwell Automation Port Assignments (similar to IANA port assignments)

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

Port	Protocol	Description
25/TCP	SMTP	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	rnaorpc	FactoryTalk Object RPC
1331/tcp	rnaserv	FactoryTalk Service control
1332/tcp	rnaserverping	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	rnadirft	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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