

### 3 SPECIFICATIONS

The following shows the Q series C24 performance specifications.  
 For general specifications, refer to the QCPU User's Manual (Hardware Design, Maintenance and Inspection).

#### 3.1 Performance Specifications

The following shows the Q series C24 performance specifications. For the transmission specifications when communicating via the modem function, see this section and User's Manual (Application).

##### (1) Transmission specification

Item		Specifications																
		QJ71C24N QJ71C24	QJ71C24N-R2 QJ71C24-R2	QJ71C24N-R4														
Interface	CH1	RS-232-compliance (D-sub 9 pin)	RS-232-compliance (D-sub 9 pin)	RS-422/485-compliance (2-piece plug-in connector socket block)														
	CH2	RS-422/485-compliance (2-piece terminal block)	RS-232-compliance (D-sub 9 pin)	RS-422/485-compliance (2-piece plug-in connector socket block)														
Communications system (* 1)	Line	Full-duplex/half-duplex communications																
	MC protocols communication	Half-duplex communications																
	Non procedure protocol communication	Full-duplex/half-duplex communications																
	Bidirectional protocol communication	Full-duplex/half-duplex communications																
	Pre-defined protocol communication (* 6)	Full-duplex/half-duplex communications																
Synchronization method		Start-stop synchronization method																
Transmission speed	[QJ71C24N(-R2/R4)]																	
	<table border="1"> <tr> <td>50</td> <td>300</td> <td>600</td> <td>1200</td> <td>2400</td> <td>4800</td> <td>9600</td> </tr> <tr> <td>14400</td> <td>19200</td> <td>28800</td> <td>38400</td> <td>57600</td> <td>115200</td> <td>230400</td> </tr> </table> (bps)				50	300	600	1200	2400	4800	9600	14400	19200	28800	38400	57600	115200	230400
	50	300	600	1200	2400	4800	9600											
14400	19200	28800	38400	57600	115200	230400												
<ul style="list-style-type: none"> <li>• Transmission speed 230400 bps is available for only CH1. (Not available for CH2)</li> <li>• Total transmission speed of two interfaces is available up to 230400 bps.</li> <li>• Total transmission speed of two interfaces is available up to 115200 bps when the communication data monitoring function is used.</li> </ul>																		
Transmission speed	[QJ71C24(-R2)]																	
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14400	19200	28800	38400	57600	115200	-												
<ul style="list-style-type: none"> <li>• Total transmission speed of two interfaces is available up to 115200 bps.</li> </ul>																		
Data format	Start bits	1																
	Data bits	7/8																
	Parity bits	1 (vertical parity) or none																
	Stop bits	1/2																
Access cycle	MC protocol communication	Processes one request during installed programmable controller CPU END processing. * Number of scans that must be processed/number of link scans depends on the contents of the request. (See Reference Manual.)																
	Non procedure protocol communication Bidirectional protocol communication	Sends each time a send request is issued. Can receive at any time.																
	Pre-defined protocol communication (* 6)	Sends or receives data when requested with the dedicated instruction (CPRTCL).																
Error detection	Parity check	Selected for all protocols and when this check is enabled, ODD or EVEN is selected by a parameter.																
	Sum check code	For the MC or bidirectional protocol, selected by a parameter. For the non procedure protocol, selected in the user frame. For the pre-defined protocol, whether or not a sum check code is needed depends on the selected protocol. (* 6)																

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Item	Specifications																				
	QJ71C24N QJ71C24	QJ71C24N-R2 QJ71C24-R2	QJ71C24N-R4																		
Transmission control	<table border="1"> <thead> <tr> <th></th> <th>RS-232</th> <th>RS-422/485</th> </tr> </thead> <tbody> <tr> <td>DTR/DSR control</td> <td>Enabled</td> <td>Disabled</td> </tr> <tr> <td>RS/CS control</td> <td>Enabled</td> <td>Disabled</td> </tr> <tr> <td>CD(DCD) signal control</td> <td>Enabled</td> <td>Disabled</td> </tr> <tr> <td>DC1/DC3 (Xon/Xoff) control</td> <td>Enabled</td> <td>Enabled</td> </tr> <tr> <td>DC2/DC4 control</td> <td>Enabled</td> <td>Enabled</td> </tr> </tbody> </table>				RS-232	RS-422/485	DTR/DSR control	Enabled	Disabled	RS/CS control	Enabled	Disabled	CD(DCD) signal control	Enabled	Disabled	DC1/DC3 (Xon/Xoff) control	Enabled	Enabled	DC2/DC4 control	Enabled	Enabled
		RS-232	RS-422/485																		
	DTR/DSR control	Enabled	Disabled																		
	RS/CS control	Enabled	Disabled																		
	CD(DCD) signal control	Enabled	Disabled																		
DC1/DC3 (Xon/Xoff) control	Enabled	Enabled																			
DC2/DC4 control	Enabled	Enabled																			
• DTR/DSR signal control and DC code control are selected by the user.																					
Line configuration (Connection) (* 2)	RS-232	1:1	1:1																		
	RS-422/485	1:1, 1:n, n:1, m:n	—																		
			1:1, 1:n, n:1, m:n																		
Line configuration (Data communication) (* 2)	RS-232	MC protocols communication	1:1	—																	
		Non procedure protocol communication	1:1																		
		Bidirectional protocols communication	1:1																		
		Pre-defined protocol communication (* 6)	1:1																		
	RS-422/485	MC protocols communication	1:1, 1:n, m:n	—																	
		Non procedure protocol communication	1:1, 1:n, n:1																		
		Bidirectional protocols communication	1:1																		
		Pre-defined protocol communication (* 6)	1:1, n:1																		
Transmission distance (Overall distance)	RS-232	Maximum 15 m (49.2 ft.)	Maximum 15 m (49.2 ft.)	—																	
	RS-422/485	Maximum 1200 m (3937 ft.) (overall distance)	—	Maximum 1200 m (3937 ft.) (overall distance)																	
Flash ROM write count	Maximum 100,000 times to the same area																				
Number of occupied I/O points	32 points per slot (I/O assignment: Intelli: 32 points) (* 3)																				
Recommended cable	RS-232	7/0.127 □P HRV-SV Outside diameter 8.5mm (0.33in.) or more (Oki Electric Cable Co., Ltd. Applicable number is specified in □.)																			
	RS-422/485	SPEV (SB)-MPC-0.2 × 3P Outside diameter approx. 6.5mm (0.26 in.) (Mitsubishi Cable Industries, LTD.) SPEV(SB)-0.2 × 3P Outside diameter approx. 7.5mm (0.3 in.) (Mitsubishi Cable Industries, LTD.) (* 4)																			
Applicable connector for external wiring	D-sub 9 pin (male) screw type (* 5)		—																		
5V DC internal current consumption	0.31A	0.26A	0.39A																		
External dimensions	98 (3.86 in.) (H) × 27.4 (1.08 in.) (W) × 90 (3.54 in.) (D)[mm]																				
Weight	0.20kg (0.44lb)																				

- \* 1 Set to transfer data with external devices using a full-duplex communication system when the Q series C24 is started. For switching to a half-duplex communication system, refer to the User's Manual (Application).
- \* 2 Indicates possible combinations when connecting the programmable controller CPU and external devices (external device side: programmable controller CPU side). The total number of n and m+n is up to 32 stations.
- \* 3 In order to use the Q series C24, it is necessary to set the GX Developer switches. To set the GX Developer switches, refer to Section 4.5.
- \* 4 Recommended cables SPEV (SB)-MPC-0.2 × 3P and SPEV (SB)-0.2 × 3P are equivalent in the electrical characteristics, but partially different in the outside diameter, internal wire colors, etc.
- \* 5 See Section 3.2.1 (3) for the recommended connector.
- \* 6 Pre-defined protocol communication is available for the QJ71C24N, QJ71C24N-R2, and QJ71C24N-R4.

