

PCMCIA memory expansion cards

Quantum **140CPU65860** and **140CPU67861** can take 1 memory expansion card. Quantum **140CPU65150**, **140CPU65160**, **140CPU65260**, **140CPU67060**, **140CPU67160**, **140CPU67260**, and **140CPU67261** CPUs can take up to 2 memory expansion cards. However, the useful memory capacity is limited to the maximum size defined for the CPU model (see pages 1/12).

Connection cables and accessories

Description	Use		Length m/ft	Reference	Weight kg/lb
	From CPU	To PC port			
Cables for connection to the PC terminal	Modbus port, 9-way SUB-D for: 140CPU31110, 140CPU43412U	RS 232	3.7/	990NAA26320	0.300/ 0.661
		9-way SUB-D connector	12.14		
		USB port of PC	0.4/ 1.31	TSXCUSB232 (1)	0.145/ 0.320
	Modbus port, RJ45 for: 140CPU6●●●●	RJ45 connector	1/ 3.28	110XCA28201	–
			3/ 9.84	110XCA28202	–
			6/ 19.68	110XCA28203	–
USB port of PC	USB port of PC	0.4/ 1.31	TSXCUSB232 (2)	0.145/ 0.320	
		3.3/ 10.83	UNYXCAUSB033	–	
Connection cable for Modbus network	Modbus port, RJ45 on high performance CPUs 140CPU65●●● and 140CPU67●●●	RJ 45 port on Modbus splitter box LU9GC3	3/ 9.84	TCSMCN3M4M3S2	–
Connection cables for Modbus Plus network	Modbus Plus port, 9-way SUB-D for: 140CPU31110, 140CPU43412U	Modbus Plus tap (3)	2.4/ 7.87	990NAD21110	–
		Elbowed connector (left side)	6/ 19.68	990NAD21130	–
	Modbus Plus port, 9-way SUB-D for: 140CPU6●●●●	Modbus Plus tap (3)	2.4/ 7.87	990NAD21810	–
		Straight connector	6/ 19.68	990NAD21830	–
Modbus Plus/USB converter (5)	Modbus Plus tap (3)	USB port	0.4/ 1.31	TSXCUSBMBP (4)	0.186/ 0.410
Adaptor	RJ45 connector for 140CPU6●●●●	RS 232 9-way SUB-D connector	–	110XCA20300	–



TSXCUSB232



990NAD211●0



990NAD218●0



TSXCUSBMBP

(1) With the **TSXCUSB232** converter, use the **990NAA26320/30** cable.

(2) With the **TSXCUSB232** converter, use the **110XCA20300** adaptor and the **110XCA2820●** cable.

(3) Modbus Plus tap: **990NAD23020/21** (IP 20) or **990NAD23010** (IP 65).

(4) With the **TSXCUSBMBP** converter, use the **990NAD21110/30** or **990NAD21810/30** cable.

(5) This converter is recommended for updating the CPU firmware.

References (continued)

Connection cables

Description	Length m/ft	Item	Reference	Weight kg/lb
Modbus Plus standard cables	30.5/100.07	–	490NAA27101	–
	152.5/500.33	–	490NAA27102	–
	305/1000.65	–	490NAA27103	–
	457/1558.39	–	490NAA27104	–
	1525/5003.27	–	490NAA27106	–
Modbus Plus drop cables	2.4/7.87	18	990NAD21110	–
	6/19.68	–	990NAD21130	–
PC programming cable/ T-connector	3.05/10.01	19	990NAA21510	–
Modbus Plus RS 485 cable	0.25/0.82	22	170MCI02010	–
	1/3.28	–	170MCI02036	–
Modbus Plus RS 485 Master communication cable (RJ45/RJ45)	0.3/0.98	–	170MCI04110	–
Modbus Plus RJ45 cable	3/9.84	20	170MCI02120	–
Modbus Plus differential RJ45 cables	3/9.84	–	170MCI02180	–
	10/32.81	23	170MCI02080	–
Cable (RJ45/RJ45)	1/3.28	–	110XCA28201	–
	3/9.84	–	110XCA28202	–
	6/19.68	–	110XCA28203	–

Cabling accessories

Description	Type	Item	Reference	Weight kg/lb
Modbus Plus power supply module connector	IP 20	–	140XTS00500	–
Modbus Plus D-shell adaptor for AT serial port	9-way RJ45	–	110XCA20300	–
Modbus Plus D-shell adaptor for XT serial port	25-way RJ45	–	110XCA20400	–

Cabling tools

Description	Item	Reference	Weight kg/lb
Modbus Plus network cable installation tool	–	ASMBPL001	–
RJ crimping tool	–	170XTS02300	–
Earthing clamp	–	424244739	–

Connectors

Description	Sold in lots of	Item	Reference	Weight kg/lb
Modbus Plus inline	1 per kit	–	ASMBKT085	–
Modbus Plus terminator	2 per kit	–	ASMBKT185	–
Modbus Plus “T” connector (DB9 base)	1	21	170XTS02000	–
RJ45 terminator	2 per kit	24	170XTS02100	–
RJ45 “T” connector for RS 485 cable (DB9 base)	–	–	170XTS04000	–
RJ45 shielded connectors	20 per kit	–	170XTS02200	–
RJ45 “T” connector for RS 485 cable	1	–	170XTS04100	–
RS 485 multi-master RJ45 drop connections	2	–	170XTS04200	–

T-connectors

Description	Sold in lots of	Item	Reference	Weight kg/lb
Modbus Plus T-connector, IP 20	1	16	990NAD23000	–
Modbus Plus ruggedized T-connector, IP 65	1	17	990NAD23010	–
Modbus Plus T-connector ruggedized terminators	2 per kit	13	990NAD23011	–
Modbus Plus DIN rack flush- mounting assembly with ruggedized T-connector	1	–	990NAD23012	–
Modbus Plus lightning arrester	1	–	490NAC72100	–

Modicon Quantum automation platform

Safety CPUs



140CPU65160S



140CPU67160S



TSXCUSB232



990NAD2180



TSXCUSBMBP

Safety CPUs

Both these CPUs are certified by TÜV Rheinland as suitable for use in a safety function up to level SIL3. By default they have "Humiseal 1A33" coating which makes them suitable for operation in severe environments (see page 8/2).

CPU		Application memory (max.)		Communication ports	Optical fibre	Safety	Reference	Weight
Clock speed	Coprocessor	Available internal RAM (with located variables)	With PCMCIA card		Type and max. distance			
MHz		KB	KB		km			kg/lb
266	Yes	768	7168	1 Modbus (1) 1 Modbus Plus 1 USB 1 Ethernet TCP/IP	multi-mode	2 Yes	140CPU65160S	–
		1024	7168	1 Modbus (1) 1 Modbus Plus 1 USB 1 Hot Standby port (100 Mbps) (2)	multi-mode	2 Yes	140CPU67160S	–

PCMCIA memory expansion cards

Quantum **140CPU65160S** and **140CPU67160S** CPUs can take 1 memory expansion card (see list on page 6/22).

Connection cables and accessories

Description	Use		Length m/ ft	Reference	Weight kg/ lb
	From processor	To PC port			
Connecting cables to the PC	Modbus port, RJ45 for: 140CPU6●160S	RJ45 connector	1/ 3.28	110XCA28201	–
			3/ 9.84	110XCA28202	–
			6/ 19.68	110XCA28203	–
		USB port	0.4/ 1.31	TSXCUSB232 (3)	0.145/ 0.320
	USB port for: 140CPU6●160S	USB port	3.3/ 10.83	UNYXCAUSB033	–
Connection cables for Modbus Plus network	Modbus Plus port, 9-way SUB-D for: 140CPU6●160S Straight connector	Modbus Plus tap (4)	2.4/ 7.87	990NAD21810	–
			6/ 19.68	990NAD21830	–
Modbus Plus/USB converter	Modbus Plus tap (3)	USB port	0.4/ 1.31	TSXCUSBMBP (5)	0.186/ 0.410
Adaptor	RJ45 connector for 140CPU6●160S	RS 232 9-way SUB-D connector	–	110XCA20300	–

(1) RS 232/RS 485 Modbus port.

(2) Ethernet 100 Mbps port for multimode optical fibre.

(3) With the **TSXCUSB232** converter, use the **110XCA20300** adaptor and the **110XCA2820●** cable.

(4) Modbus Plus tap: **990NAD23020/21** (IP 20) or **990NAD23010** (IP 65).

(5) With the **TSXCUSBMBP** converter, use the **990NAD21110/30** or **990NAD21810/30** cable.