



### Description

The 140 CPU 651 50 and 140 CPU 651 60 processors have the following on the front panel:

- 1 An LCD display cover, providing access to:
  - A key switch for locking system operations that may be requested and all the permitted parameters that may be modified via the LCD display (2) and 5-button keypad (3).
  - A slot for the backup battery.
  - A "Restart" pushbutton.
- 2 An LCD display (2 lines of 16 characters) with brightness and contrast controls.
- 3 A 5-button keypad with LEDs (ESC, ENTER, MOD, ÎI, =>).
- 4 An RJ45 connector for connection to the Modbus bus.
- 5 A type B female USB connector for connecting the programming PC.
- 6 A 9-way female SUB-D connector for connection to the Modbus Plus network.
- 7 Two slots for PCMCIA memory extension cards.
- 8 Two LEDs marked COM and ERR.
- 9 An RJ45 connector for connection to the Ethernet network.

### Characteristics

Type of module		Unity Pro software	140 CPU 651 50	140 CPU 651 60	
<b>Transparent Ready services</b>	Class		B30		
	Standard Web server		"Rack Viewer" access to the product description and status and to the PLC diagnostics "Data editor" access to the configuration functions and PLC variables		
	Standard Ethernet TCP/IP communication service		Modbus TCP messaging (read/write data words)		
	Ethernet TCP/IP advanced communication services	I/O Scanning		Yes (between 128 stations)	
		Global Data		Yes	
FDR client			Automatic assignment of IP address and network parameters		
SMTP e-mail notification			Yes		
<b>Structure</b>	SNMP network administrator		Yes		
	Pass band management		Yes		
	Physical interface		10BASE-T/100BASE-TX (RJ45)		
	Data rate		10/100 Mbps with automatic recognition		
	Medium		Twisted pair		
<b>Quantum processor</b>	No. of discrete I/O		Local: 26 slots, decentralized: 31744 I/31744 Q, distributed: 8000 I/8000 Q/network		
	No. of analog I/O		Local: 26 slots, decentralized: 1984 I/31984 Q, distributed: 500 I/500 Q/network		
	Max. no. of communication modules		6 in local rack		
	Max. memory capacities	Program		7168 Kb	
		Localized/non-localized data		512 Kb	1024 Kb (768 Kb with no PCMCIA card)
		Data storage		8192 Kb	
	Operating temperature		0...+60°C		
	Relative humidity		10...95% non condensing during operation		
	Degree of protection		IP 20		
	Power supply		Via the power supply of the rack supporting the processor		
Conformity to standards		UL 508, cUL, CSA 22.2-142, FM Class 1 Division 2, CE			
LED indicators		Activity on the Ethernet port (COM), collision detection (ERR)			

### References



140 CPU 651 50/60

Description	Processor clock frequency	Program/data capacity (1)	Reference	Weight kg
<b>Processors with integrated Ethernet link</b> Class B30	166 MHz	7168 Kb/512 Kb	<b>140 CPU 651 50</b>	—
	266 MHz	7168 Kb/1024 Kb	<b>140 CPU 651 60</b>	—

(1) With PCMCIA card.

For further information: Please consult our "Modicon Quantum and Unity software automation platform" catalog.



### Presentation

Ethernet 140 NOE 771 ●1/NWM 100 00 Ethernet network modules are single format modules for installing in the local rack slots of a Modicon Quantum PLC configuration.

A configuration can take from 2 to 6 application-specific modules, including network modules, depending on the type of processor.

### Description

The front panel of TCP/IP 140 NOE 771 01/771 11 and 140 NWM10000 Ethernet modules comprises:

- 1 A display block, which indicates the module status and the transmission status on the network.
- 2 A connector for 100BASE-FX optical interface (MT-RJ)
- 3 A standard (RJ45) connector for 10BASE-T/100BASE-TX interface.

### Characteristics

Type of module		140 NOE 771 00	140 NOE 771 10	140 NOE 771 01	140 NOE 771 11	140 NWM 100 00
Transparent	Class	B20	C20	B30	C30	D10
Ready services	Standard Web server	"Rack Viewer" access to the product description and status and to the PLC diagnostics "Data editor" access to the configuration functions and variables				
	FactoryCast configurable Web server	Editor for creating Web page mimics	Yes	–	Yes	–
		User Web page hosting (available size)	–	Yes	–	Yes (8 Mb)
	FactoryCast HMI active Web server	–	–	–	–	Yes (1)
	Standard Ethernet TCP/IP communication services	Modbus TCP messaging (read/write data words)				
	Ethernet TCP/IP advanced communication services	I/O Scanning	Yes	–	Yes (between 128 stations)	–
		Global Data	–	–	Yes	–
		FDR server	–	–	Automatic assignment of IP address and network parameters	–
		NTP time synchronization	Yes	–	Yes	–
		SMTP e-mail notification	Yes	–	Yes	–
		SNMP network administrator	Yes	–	–	SNMP agent
		Pass band management	–	–	Yes	–
Redundancy service		Compatible with Hot Standby redundant architecture				
Structure	Physical interface	10BASE-T/100BASE-TX (RJ45) or 100BASE-FX (MT/RJ)				
	Data rate	10/100 Mbit/s				
	Medium	Twisted pair/optical fiber				
Network module	Operating temperature	0... + 60°C				
	Relative humidity	10...95% non condensing during operation				
	Degree of protection	IP 20				
	Power supply	Via the power supply of the rack supporting the processor				
	Conformity to standards	UL 508, cUL, CSA 22.2-142, FM Class 1 Division 2, CE				
	LED indicators	Rack operational (Active), module ready (Ready), network active (Link) Ethernet network status (Run), download mode (Kernel), Full-duplex mode (Fduplex) Transmission/reception activity (TxAct/RxAct), 10 Mbps or 100 Mbps data rate (10MB/100MB) Collision detection (Coll), Ethernet module fault (Fault)				

(1) Database management, arithmetic and logic calculations, automatic e-mail transmission on process event, connection to relational databases.

### References



140 NOE 771 ●1/NWM 100 00

Description	Data rate	Transparent Ready class	Reference	Weight kg
Ethernet TCP/IP modules	10/100 Mbps	B20	140 NOE 771 00	0.345
		C20	140 NOE 771 10	0.345
		B30	140 NOE 771 01	0.345
		C30	140 NOE 771 11	0.345
		D10	140 NWM 100 00	0.345