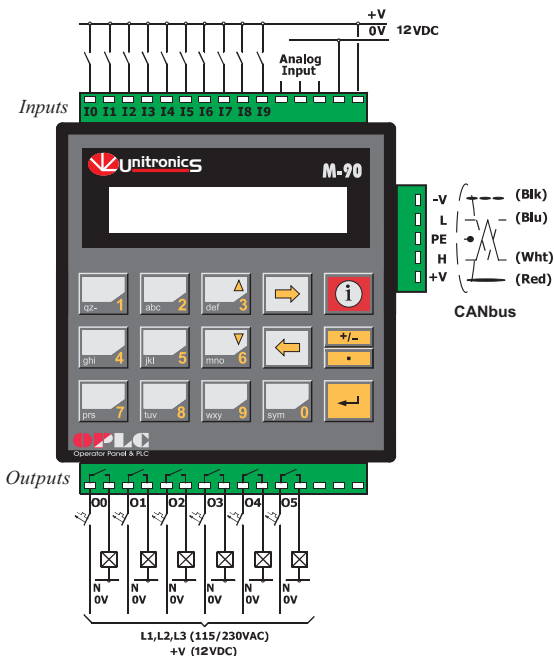


M90-R2L-CAN

10 digital inputs, 2 analog inputs, high-speed counter/shaft encoder input, 6 relay outputs, I/O expansion port, RS232 plus CANbus, 12VDC

Power supply	12VDC
Permissible range	10.2 to 15.6VDC
Maximum current consumption	240mA @ 12VDC
Typical power consumption	2.5W @ 12VDC
Digital inputs	10 pnp (source) inputs
Nominal input voltage	12VDC
Input voltage	< 3.5VDC for Logic '0' > 9VDC for Logic '1'
Input current	4.2mA @ 12VDC
Input impedance	2.84kΩ
Response time	(except Input#8 and Input#9) 5 mS
'0' to '1'	10 mS
Galvanic isolation	None
Input cable length	Up to 100 meters, unshielded
High-speed counter	<ul style="list-style-type: none"> Input#8 can function as either a HSC reset, as part of a shaft-encoder, or as a normal digital input. Input#9 can function as either a HSC, as part of a shaft-encoder, or as a normal digital input. When these are used as normal digital inputs, normal input specifications apply.
Resolution	16-bit
Input frequency	Input#8 and input#9 : 10kHz max.
Minimum pulse width	Input#8 and input#9 : 40µs
Analog inputs	Two 10-bit, multi-range inputs: 0-5V or 0-10V for Vin0 0-10V for Vin1
Conversion method	Successive approximation
Input impedance	>100kΩ
Galvanic isolation	None
Resolution	10-bit (1024 units)
Conversion time	Synchronized to scan time
Absolute max. rating	± 15V
Full scale error	± 2 LSB
Linearity error	± 2 LSB
Digital outputs	6 relay outputs, 230VAC / 12/24VDC
Output type	SPST-NO relay
Type of relay	Takamisawa (Fujitsu) JY-12H-K, or NAIS (Matsushita) JQ1A-12V or OMRON G6B-1114P-12VDC
Isolation	by relay

Output current	5A max. (resistive load) 1A max. (inductive load)
Max. frequency	10Hz
Contact protection	External precautions required
Display	STN, LCD display
Illumination	LED yellow-green backlight
Display size	1 line, 16 characters long
Character size	5 x 7 matrix, 3.07 x 5.73mm
Keypad	Sealed membrane
Number of keys	15
PLC program	2048 words
Bits/Coils	256
Integers/Registers	256
Timers	64
Execution time	12µsec. for bit operations
HMI displays	80 user-designed displays
HMI variables	50 HMI variables are available to conditionally display and modify text, numbers, dates, times & timer values. The user can also create a list of up to 120 variable text displays, totaling up to 2K.
RS232 serial port	Used for: <ul style="list-style-type: none"> Application Download/Upload Application Testing (Debug) mode Connect to GSM or standard telephone modem: <ul style="list-style-type: none"> Send/receive SMS messages Remote access programming RS485 Networking via adapter: up to 32 nodes
CANbus port	Up to 64 nodes
Baud rate range	10Kbps - 1Mbps
Cable length	Up to 150m for 12VDC network Up to 1000m for 24VDC network
I/O expansion port	Up to 64 additional I/Os, including digital & analog I/Os, RTD and more.
Miscellaneous	
Clock (RTC)	Date and time-year 2000 compliant.
Battery back-up	7 years typical battery back-up for RTC, MB 0-15 and MI 0-15
Weight	280g (9.8 oz.)
Operational temperature	0 to 50°C (32 to 122°F)
Storage temperature	-20 to 60°C (-4 to 140°F)
Mounting method	DIN-rail mounted (IP20/NEMA1) Panel mounted (IP65/NEMA4X)



Analog-In Wiring

