

# M 90-T1-CAN

12 digital inputs, high-speed counter/shaft encoder input, 12 pnp outputs, I/O expansion port, RS232 plus CANbus

<b>Power supply</b>	24VDC
Permissible range	20.4 to 28.8VDC
Maximum current consumption	90mA @ 24VDC
Typical power consumption	2W @ 24VDC
<b>Digital inputs</b>	12 pnp (source) inputs
Nominal input voltage	24 VDC
Input voltage	< 5 VDC for Logic '0' > 15 VDC for Logic '1'
Input current	3 mA @ 24 VDC
Input impedance	8.4kΩ
Response time '0' to '1'	(except Input#10 and Input#11) 5 mS
'1' to '0'	10 mS
Galvanic isolation	None
Input cable length	Up to 100 meters, unshielded
<b>High-speed counter</b>	<ul style="list-style-type: none"> <li>● Input#11 can be used as either a digital input, or as a counter</li> <li>● Input#10 can be used as either a digital input or as a counter reset</li> <li>● Inputs#10 and #11 can also be used as a shaft encoder</li> </ul>
Resolution	16-bit
Input frequency	Input#10 and input#11 : 5kHz max.
Minimum pulse width	Input#10 and input#11 : 80μs
<b>Digital outputs</b>	12 pnp (source) outputs, 24 VDC
Output type	P-MOSFET (open drain)
Isolation	None
Output current	0.5A max. Total current: 3A max.
Max. frequency	1kHz (resistive load) 0.5Hz (inductive load)
Short circuit protection	Yes
<b>Display</b>	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

<b>Keypad</b>	Sealed membrane
Number of keys	15
<b>PLC program</b>	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.
<b>RS232 serial port</b>	
Programming	Download user program
Network option	Via RS485/RS232 converter
<b>CANbus</b>	Up to 64 nodes
Baud rate range	1Kbps - 1Mbps
Cable length	25m - 1000m
	Up to 64 additional I/Os, including: digital & analog I/Os, RTD and more.
<b>I/O expansion port</b>	
<b>Miscellaneous</b>	Date and time-year 2000 compliant, with typical 7 years battery backup
Weight	260g (9.1 oz.)
Temperature	Operational 0 to +50°C Storage -20 to +60°C
Mounting method	DIN-rail mounted (IP20) Panel mounted (IP65)

