

## 3501E and 3501T Specifications

This table lists the specifications for models 3501E and 3501T, which are 16-point TMR Digital Input Modules with a nominal input voltage of 115 VAC/VDC. Model 3501T has a higher point isolation minimum than model 3501E.

**Table 24 3501E and 3501T Digital Input Specifications**

Feature	Specification
Color code	Red
Number of input points	32, non-commoned, isolated
Input frequency range	DC or 47-63 Hz
Recommended input range	90-155 VAC/VDC
Maximum voltage	155 VAC/VDC
Switching level: Off to On	69 VAC/VDC typical, 86 VAC/VDC worst-case
Switching level: On to Off	36 VAC/VDC typical, 28 VAC/VDC worst-case
Typical hysteresis	32 VAC/VDC
Nominal turn-on	6 mA to 9 mA
Input impedance	> 8.5 k $\Omega$ nominal
Input delay: Off to On	< 8 ms
Input delay: On to Off	< 15 ms
Point isolation, opto-isolated: 3501E	1000 VAC minimum, 1500 VDC minimum
Point isolation, opto-isolated: 3501T	1780 VAC minimum, 2500 VDC minimum
Status indicator: On or Off state	1 per point
Status indicator: Module status	Pass, Fault, Active
Logic power	< 10 watts
Nominal field power load	1.5 watts per On point, 2.9 watts @ maximum field voltage
Leakage current to chassis @ 60 Hz	1 mA maximum per On point
Input diagnostic fault coverage: <sup>1</sup>	
Maximum input toggle rate	Every 100 ms
Minimum input toggle rate	Every 3 months (manually toggled by the user)
Diagnostic glitch duration	Not applicable

1. The maximum input toggle rate enables proper operation of I/O diagnostics and detection of all normally detectable faults. The minimum toggle rate provides fault coverage of normally undetectable faults within 10% of the calculated mean-time-between-faults (MTBF) for the module.