TSx

USER IDENTIFIED BENEFITS

- No obsolescence of any TSx part is company policy
- Nuclear certified philosophy means great reliability and parts for 30 years
- Train your work force once! All the versions of TSx software look alike, are easy to use, and no obsolete hardware
- All major TSx parts are HOT swappable, regardless of type and location
- Cards can be replaced by just removing the card; terminations are not on the card.
- TSx is SIL1,2,3 rated per the current IEC61508 requirements and can be set up as a Quad, TMR - triple, double, single redundant, including multiple chassis & power supplies
- No external relays or parts required for TUV or other certifications/standards such as IEC61508. Note: Even with a single fault present, certification is still maintained, not the case with the competition.
- Scan times that capture what happens(ed) in a wave form or other instances with enough data points to identify problems, not simply 2 or 3 data points that look like a straight line.
- TSx processor scan time is 5 milliseconds versus up to 200 milliseconds
- TSx has 1 millisecond input cards with an SOE logic that can capture the events.
- Input to Output time is less than 15ms versus up to 700 milliseconds
- I/O card multivariable usage (DI/AC, DI/DC, Analog) reduces required spare parts.
- Software backwards compatible
- Easy firmware updates done on site with TSx software.
- HMI can contain programming software to load processor or make changes if needed
- Replacement TSx cards are self-learning (smart), no laptop or programming required.
- HMI software tracks PLC errors and auto-logs changes to program by who/what/date/time etc.
- Operator may view HMI for TSx error, in text that can be placed in repair ticket, directly points to the problem for reduced troubleshooting time and correct craft identification for work ticket preparation.
- TSx errors retained in PLC with time and date stamp for technical trouble shooting.
- Double and triple TCP/IP SIL networking, interfaces to Experion/TDC directly with Modbus TCP/IP and OPC server.
- Site (area) license for ALL TSx software - HMI interface, programming, OPC, HMI, FIFO, SOE, etc.
  1. TSx HMI software at no cost (included in site license)
  2. OPC software must be purchased to interface other brands, included with TSx
  3. Total cost of site suite license less than single user of most other PLCs.
- Ladder logic, function blocks, C++, other types of programming that can be mixed any way you want, unlimited programming flexibility
- TSx' directly retain the pneumonics, notes and documentation in the PLC memory that can be retrieved/viewed with the correct password access without needing a copy of the program.
- Most efficient, cost effective product., both TMR, redundant, and simplex systems
  1. Zero $'s for software once the initial software purchase is made for a site. Other PLC's are charged on a PLC by PLC basis.
  2. HMI software is included in TSx software. Others require third party software that goes for around $4-6K per HMI
- TSx HMI software can have up to 32 levels of security passwords
- TSx Configuration software has 3 levels of passwords
  1. View & Look
  2. Diagnostics, power flow, and forcing
  3. Configuration, logic changes
- The TSx Hardware has 2 levels of password security.
  1. Diagnostics, power flow and forcing
  2. Configuration and logic changes.
- TSx already has TUV® SIL 1/2/3 Safety Certification against the new IEC61508 which does not even go into effect until 2013 which no other vendor yet has. TSx also just received cyber security certification per the latest ISA Secure Embedded Device Security Assurance EDSA-300