HERE THE MODULE AREA OF BOTH IN-LINE, COMPARTMENT AND U-LS, COMPARTMENT, A COMBINATION OF UP TO EIGHT MODULES MAY BE INSTALLED. NO MODULE PROVIDE WIRING TERMINALS FOR THE CONNECTION OF EQUIPMENT INSTALLED IN NON-HAZARDOUS LOCATIONS. THE IN-LINE MODULAR PROVIDE WIRING TERMINALS FOR THE CONNECTION OF INTRINSICALLY SAFE APPARATUS.

THE ELECTRONICS LOCATED IN THE HARDWIRE CIRCUIT FORMS AN INTRINSICALLY SAFE SYSTEM FOR EQUIPMENT CONNECTED TO THE OUTPUT TERMINALS OF THE IN-LINE MODULES. THE IN-LINE MODULES ARE APPROVED FOR USE IN CLASS I, DIVISION 1, GROUP D, OR CLASS I, DIVISION 2, GROUPE HAZARDOUS (CLASSIFIED) LOCATIONS.

DESCRIPTION

THIS CONTROL DRAWING DESCRIBES THE INTRINSICALLY SAFE EQUIPMENT AND ASSOCIATED APPARATUS THAT TOGETHER FORM AN INTRINSICALLY SAFE SYSTEM.

TLS-350 CONsoles are identified by FINISH CODES 8870 AND 8892. A TLS-350 CONSOLE CANNOT BE CONNECTED IN PARALLEL WITH ANOTHER TLS-350 OR OTHER ASSOCIATED APPARATUS. TLS-350 CONsoles AND OPTIONAL TLS-RF CONSOLES MUST BE INSTALLED IN INDOOR NON-HAZARDOUS AREAS.

WARNING

SUBSTITUTION OF COMPONENTS MAY IMPAIR INTRINSIC SAFETY.

WIRING NOTES

INTRINSICALLY SAFE (IS) WIRING MUST BE INSTALLED IN ACCORDANCE WITH ARTICLE 501-26 OF THE NEC (NATIONAL ELECTRICAL CODE) AND NFPA-79 OR OTHER APPLICABLE LOCAL CODES. ALL OTHER WIRING MUST BE INSTALLED IN ACCORDANCE WITH LOCAL CODES.

THE MAXIMUM CABLE LENGTH ALLOWED TO CONNECT AN INTRINSICALLY SAFE DEVICE TO THE TLS-350 CONSOLE IS LIMITED TO A TOTAL OF 5000 FEET PER CONSOLE.

EACH CABLE (OR U-LS, WIRING), USED TO CONNECT INTRINSICALLY SAFE DEVICES TO THE TLS-350 CONSOLE MUST BE RATED 100°F PROOF (OR LESS CAPABLE OF HEAT-RESISTANCE) AND MUST BE RATED 0.25 INCH HEAVYWEIGHT (OR LESS, INSULATED HEAVYWEIGHT).

U.S. EQUIPMENTS MUST BE CONNECTED TO A SUITABLE GROUND ELECTRIC THROUGH LESS THAN ONE OHM RESISTANCE TO THE EARTH GROUND BUS AT THE DISTRIBUTION PANEL IN ACCORDANCE WITH THE NEC/COE OR OTHER LOCAL CODES.

CABLES (OR U-LS, WIRING) USED TO CONNECT SEPARATE U-LS DEVICES TO THE ASSOCIATED APPARATUS MUST HAVE SUITABLE INSULATION AS REQUIRED BY ARTICLE 501-10(b) OF THE NEC.

ASSOCIATED APPARATUS MUST BE INSTALLED IN ACCORDANCE WITH THIS CONTROL DRAWING AND ARTICLE 501 OF THE NEC OR SECTION 18 OF THE NEC.

THE MAXIMUM SAFE AREA VOLTAGE (V) OF THIS EQUIPMENT IS 250V RMS OR DC. EQUIPMENT CONNECTED TO THE TLS-350 CONSOLE MUST NOT USE OR GENERATE MORE THAN 250V RMS OR DC WITH RESPECT TO EARTH GROUND.
LIMITATIONS

A maximum of 4 TLS-PRF consoles and up to 64 intrinsically safe devices may be connected to the intrinsically safe compartment of the TLS-350 console.

The maximum number of a specific device type is limited according to the installation instructions provided with the associated apparatus. For example, a maximum of 64 MAG probes may be used with a single TLS-350 console.

Magnetostatic probe – enclosure contains aluminum. Care must be taken to avoid ignition hazard due to impact or friction.

Vapor flow meters, part numbers 331847-001 and 332374-001 are only suitable for use inside the base of a flammable liquid dispenser when factory installed by the respective original equipment manufacturer.

Vapor flow meters, part numbers 331847-002 and 332374-002 are suitable for in-the-field installations, when mounted inside flammable liquid dispensers that are evaluated as a part of a listed by report retrofit kit.

UL listed vapor pressure sensors, part numbers 861190-001, 861190-002, and 861190-003 are suitable for use inside the base of a flammable liquid dispenser when installed by the respective original equipment manufacturer. Vapor pressure sensors, part numbers 861190-001, 861190-002, and 861190-003 are also suitable for use when mounted to the vapor vent stack that is used for venting flammable vapors.

Vapor pressure sensors, part numbers 861190-001, 861190-002, and 861190-003 are suitable for in-the-field installations, when mounted inside flammable liquid dispensers that are evaluated as a part of a listed by report retrofit kit.

SURGE PROTECTION

Surge protection components must be gas-tube type UL recognized, category code design-rated, and have an impulse rating of at least 1918.3.2. Connect the surge protection in accordance with NFPA 780, Clause 418.3.2.

Consult the local authority having jurisdiction prior to installing any surge protection devices. Some installations may require a 5-foot spacing distance between surge protection and air-handling access point or vent. Reference NFPA 30.

The surge protection device must be a single apparatus only (NFPA 70, Clause 594.2) suitable to the authority having jurisdiction.