

**FPP4 & FPP6—CATEGORY 3 FIVE PIN SURGE PROTECTION MODULES**

**Features**

- UL Listed for Primary (497) and Secondary (497A) applications. UL Listing is critical for ensuring safety and performance of protection devices.
- Solid-state protection provides the fastest response time to transient voltages (1–5 nanoseconds) by quickly diverting damaging surges to ground.
- Solid-state protection automatically resets without user intervention.
- Signal Pins are Gold Plated and Ground Pin is Tin Plated
- Single pair protection—Scale the protection to the system size. Protect only the lines requiring protection.
- FPP6 contains resettable PTC fuses to decrease service calls and replacements cost.



**Technical Specifications**

*Designs and specifications are subject to change without notice due to product improvement.*

**PRODUCT SPECIFICATIONS:**

|                              |                                    |
|------------------------------|------------------------------------|
| Agency Approval              | UL 497 (Primary), 497A (Secondary) |
| LED Indicators               | N/A                                |
| Solid-state Circuitry        | Yes                                |
| Grounding Requirements       | Field installed solid cooper wire  |
|                              | #6 AWG for Primary                 |
|                              | #10 AWG for Secondary              |
|                              | #14 AWG for Isolated Loop          |
| Recommended Ground Impedance | < 0.5 Ohm                          |
| Termination Type             | Five Pin                           |
| Width                        | .75"                               |
| Height                       | 3.5"                               |
| Depth                        | 0.51"                              |
| Weight                       | 0.02 lbs                           |
| Product Warranty             | Lifetime                           |
| Connected Equipment Warranty | N/A                                |

For up-to-date warranty information see our web site: [www.itwlinx.com](http://www.itwlinx.com)



**SIGNAL LINE SURGE PROTECTION:**

**TELCO CIRCUIT PROTECTION**

|                              |                         |
|------------------------------|-------------------------|
| Signal Perfect Circuitry     | Yes                     |
| Fuseless/Auto-Resettable     | Yes                     |
| Clamping Level (FPP4 & FPP6) | 75V, 235V, 300V         |
| Clamping Level (FPPCAT6)     | 75V, 235V               |
| Response Time                | 1–5 Nanoseconds         |
| Capacitance                  | < 50pF                  |
| Suppression Modes            | Metallic & Longitudinal |
| Wires Protected              | 2-wires, 1-pair         |
| Termination Type             | Five Pin Block          |

**LAN CIRCUIT PROTECTION**

|                             |                 |
|-----------------------------|-----------------|
| Signal Perfect Circuitry    | Yes             |
| Fuseless/Auto-Resettable    | Yes             |
| Performance Rating          | Category 6      |
| Clamping Level (FPPCAT6-16) | 16V             |
| Response Time               | 1–5 Nanoseconds |
| Capacitance                 | < 50pF          |
| Wires Protected             | 2-wires, 1-pair |
| Termination Type            | Five Pin Block  |



*More information is available in the Technical Reference section of this catalog, turn to page 92.*

**Ordering Information**

| ITW Linx Part Number | Fuse Rating | UL Primary | UL Secondary | UL Isolated Loop | Application     | Performance | Max. Operating Voltage (AC & DC) | Clamping Voltage |
|----------------------|-------------|------------|--------------|------------------|-----------------|-------------|----------------------------------|------------------|
| <b>FPP4-75</b>       | 350mA       | ✓          | ✓            | —                | Voice/Fax/Modem | 250 kHz     | 35.1–60.0 Volts                  | 75 Volts         |
| <b>FPP4-235</b>      | 350mA       | ✓          | ✓            | —                | Voice/Fax/Modem | 250 kHz     | 200 Volts Peak                   | 235 Volts        |
| <b>FPP4-300</b>      | 350mA       | ✓          | ✓            | —                | Voice/Fax/Modem | 250 kHz     | 300 Volts Peak                   | 300 Volts        |
| <b>FPP6-75</b>       | 160mA       | —          | ✓            | —                | Voice/Fax/Modem | 1.544 MHz   | 35.1–60.0 Volts                  | 75 Volts         |
| <b>FPP6-235</b>      | 160mA       | —          | ✓            | —                | Voice/Fax/Modem | 1.544 MHz   | 200 Volts Peak                   | 235 Volts        |

FPPCAT6 protectors must be used in conjunction with ITW Linx DataLinx™ Category 6 BET for Category 6 performance.



**Applications:**

- Telephone Systems
- Work-stations
- Fax Machines
- Cameras
- Access Controls
- Alarms

TL-12C, TL-25C, TL-50C, TL-100C—BUILDING ENTRANCE TERMINALS ANALOG/DIGITAL VOICE

Building Entrance Terminals



Features

- **Primary/Isolated Loop (UL497/UL497B)**—UL Listing is critical for ensuring safety and performance of protection devices.
- **Solid-state protection**—Provides the fastest response to transient voltages (1–5 nanoseconds) by quickly diverting damaging surges to ground.
- **Size**—12-pair, 25-pair, 50-pair and 100-pair protection.
- **Single pair protection**—Protect only the lines requiring protection.
- **Rack mounted or wall-mounted**—First Building Entrance Terminal in the industry to mount to standard 19" rack (except TL-12C must be wall-mounted).
- **Streamlined Installation**—Punch down the OSP cable on the "Line" side and punch down the UTP cable on the "Equipment" side of the integral 110 connectors.
- Individual Five Pin Modules offer system scalability and serviceability.
- Covered to provide added security and durability and ensure your transmission certification.
- Gold plated contacts for corrosion resistance.
- Integral cable management and strain relief and durable black painted steel housings.
- Grounding hardware included.

Technical Specifications

Designs and specifications are subject to change without notice due to product improvement.

PRODUCT SPECIFICATIONS:

|                              |                                   |
|------------------------------|-----------------------------------|
| Agency Approval              | UL 497 (Primary)                  |
| LED Indicators               | N/A                               |
| Performance Rating           | Category 3                        |
| Grounding Requirements       | Field installed solid cooper wire |
|                              | #6 AWG for Primary                |
|                              | #14 AWG for Isolated Loop         |
| Recommended Ground Impedance | < 0.5 Ohm                         |
| Termination Type             | 110 punchdown                     |
| Width                        | see ordering information below    |
| Height                       | 19"                               |
| Depth                        | 4.1"                              |
| Product Warranty             | Lifetime                          |
| Connected Equipment Warranty | N/A                               |

SIGNAL LINE SURGE PROTECTION:

TELCO CIRCUIT PROTECTION

|                          |     |
|--------------------------|-----|
| Signal Perfect Circuitry | N/A |
| Fuseless/Auto-Resettable | N/A |
| Clamping Level           | N/A |
| Response Time            | N/A |
| Capacitance              | N/A |
| Suppression Modes        | N/A |
| Wires Protected          | N/A |
| Termination Type         | N/A |

LAN CIRCUIT PROTECTION

|                          |     |
|--------------------------|-----|
| Signal Perfect Circuitry | N/A |
| Fuseless/Auto-Resettable | N/A |
| Performance Rating       | N/A |
| Clamping Level           | N/A |
| Response Time            | N/A |
| Wires Protected          | N/A |
| Termination Type         | N/A |

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Ordering Information

| ITW Linx Part Number | Description   |
|----------------------|---|
| <b>TL-12C</b>        | 12-pair Cat 3 rated BET with cover, Wall-mount only, 4.3" × 10.2" × 4.1".         |
| <b>TL-25C</b>        | 25-pair Cat 3 rated BET with cover, Rack- or wall-mountable, 5.2" × 19" × 4.1".   |
| <b>TL-50C</b>        | 50-pair Cat 3 rated BET with cover, Rack- or wall-mountable, 8.7" × 19" × 4.1".   |
| <b>TL-100C</b>       | 100-pair Cat 3 rated BET with cover, Rack- or wall-mountable, 15.7" × 19" × 4.1". |

Applications:

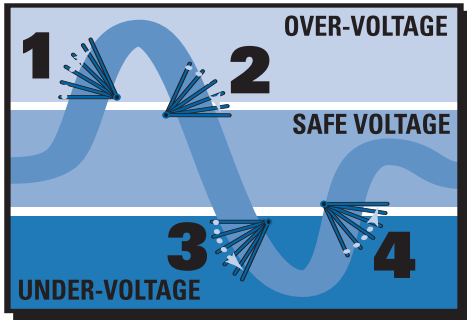
- Telephone Systems
- Workstations
- Fax Machines
- Cameras
- Access Controls
- Alarms

TeleLinx

**ITW LINX INNOVATIVE PROTECTION CIRCUITRY FEATURING:**

*SurgeGate Plus Circuitry*

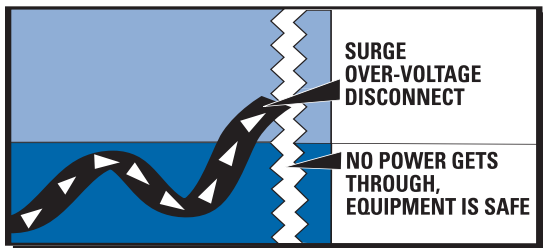
Protects against prolonged overvoltages and undervoltages by automatically disconnecting the power to your equipment, then reconnecting it when the power has returned to a safe level. This patented circuitry acts as a gate to prevent unsafe voltages from damaging sensitive equipment.



- 1.) Overvoltage **DISCONNECT**
- 2.) Safevoltage **RECONNECT**
- 3.) Undervoltage **DISCONNECT**
- 4.) Safevoltage **RECONNECT**

*Protect or Disconnect Circuitry*

Protects equipment against all surges. In the event of a catastrophic surge such as lightning, it completely disconnects AC power to the connected equipment and to the protector.



*Signal Perfect Circuitry*

Auto-resetting surge protection for data networks, telephone and coax lines. This optimized circuitry ensures a clean, clear signal and features solid-state suppressors for maximum protection and reliability.

