

TOFCO PASSIVE SAFETY KIT TPSK-ZV-FP (Zero Voltage - Feeder Pillar)

The latest addition to the Tofco Passive Safety Kit range is an above ground Zero Voltage Feeder Pillar System **TPSK-ZV-FP**.

The **TPSK-ZV-FP** has been designed to give individual circuit control that provides complete electrical disconnection from the power supply upon a vehicular collision of a **column, post or sign**. **Complete electrical disconnection** is achieved in the feeder pillar within the time constraints as specified in BSEN 12767:2007.

Each column, post or sign is fitted with a Tofco Isolator or Fuse Unit allowing looped & end of line terminations of SWA cables.

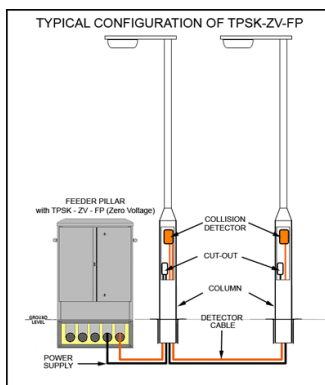
The independent Tofco Zero Voltage (ZV) Circuit Detector is fitted above the Isolator or Fuse Unit and is wired back to the ZV Controller located within the feeder pillar.

Upon a vehicular collision, the ZV detector will activate the ZV Controller housed within the feeder pillar and disconnect all power to the affected circuit within the 0.4s time constraints as specified within BSEN 12767: 2007.

Column Isolators / Fuse Units to BSEN 60947-1 and BS7654 will be supplied to meet the specification and allow for termination of SWA supply cables.



Typical installation Outgoing Impact Detector Cables



Column Impact Detector Cables –
Looped in each Column via Tilt Switch

The **TPSK-ZV-FP** system incorporates the same Zero Voltage technology that is used in our TPSK ZV underground chamber system offering the following features and

FEATURES & BENEFITS (TPSK-ZV-FP) - Impact Detector:

- 1. Feature:** Zero Voltage switch
- 2. Feature:** Compact detector
- 3. Feature:** Epoxy encapsulated tilt switch.
- 4. Feature:** Non-mercury based detection technology.

- Benefit:** Activated by collision but not vibration.
- Benefit:** Reduced on-site installation time.
- Benefit:** Robust, not affected by moisture.
- Benefit:** Environmentally "friendly". RoHS Compliant and disconnects within the 0.4s time scale as stated within BSEN 12767:2007.

FEATURES & BENEFITS (TPSK-ZV-FP) - Disconnection System:

- 1. Feature:** Disconnects power to the lighting column / structure on vehicular collision.
- 2. Feature:** Disconnects all Live and Neutral to the column when cable to column breaks.
- 3. Feature:** No low voltage detection lines required.
- 4. Feature:** Lighting Panel supplied pre-wired within Tofco steel feeder pillar.
- 5. Feature:** Automatic restart after power fail.
- 6. Feature:** LED indication.
- 7. Feature:** Special detector filter circuit.

- Benefit:** **COLUMN IS ELECTRICALLY SAFE AFTER COLLISION AND NO RISK TO EMERGENCY SERVICES.**
- Benefit:** **NO RISK TO EMERGENCY SERVICES FROM LIVE END OF CONNECTOR.**
- Benefit:** Simple to install. No low voltage power supply required.
- Benefit:** Easy to install, factory test certificate.
- Benefit:** No need for manual reset.
- Benefit:** Installation and fault detecting easy. Indicates that system is live, that the detector is operational or if the ZV Disconnection system has been activated.
- Benefit:** Removes risk of spurious triggering from traffic vibration, electronic ballasts or vandal attack (e.g. kicking the lamp column).

FEEDER PILLAR CONSTRUCTION

The **TPSK-ZV-FP** comes pre-wired to meet the client's specification and can provide a combination of Passive and Non Passive outgoing circuits. Panel Assembly Drawings (PAD) will be provided for client approval prior to manufacture.

Pillar sized to accommodate all internal switchgear and DNO supply if required.
IP66 Internal enclosures to house panel components & ZV Disconnection System .
Main incoming Isolation device.
Protective devices for outgoing circuits.

Auxiliary circuits – heater, light, REC socket, thermostat.
Gland plate for SWA termination.
Internal wiring and blocks sized to suit.
Factory test certificate & PAD drawing supplied.

Please ensure minimum cable bend radius is achieved when selecting size of chamber.