



CITEL

■■■ Reliability in Surge Protection ■■■

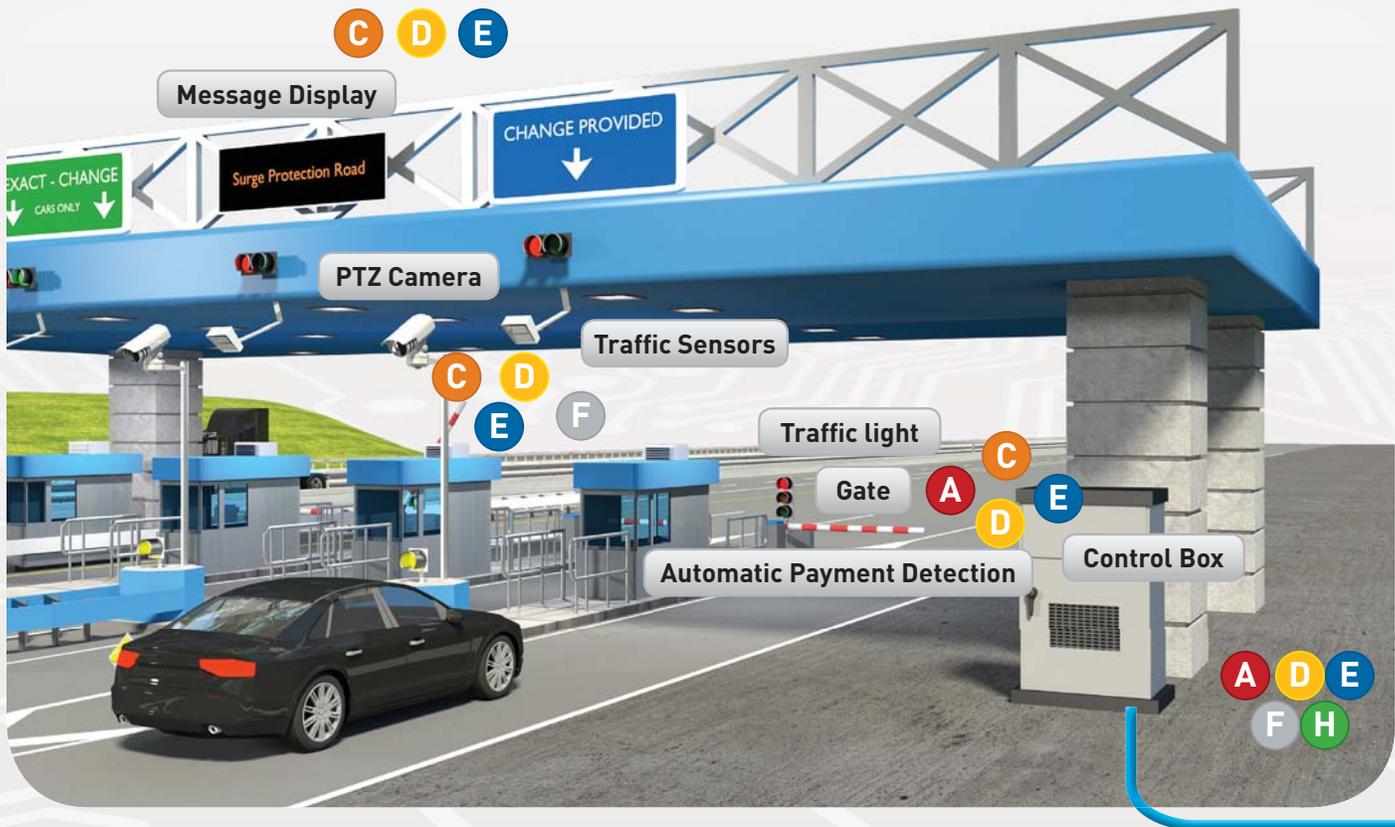
Surge Protective Devices

for

Intelligent Transportation Systems



Surge Protective Devices for Traffic Control



Traffic control, or Intelligent Transportation Systems (ITS) equipment, employ sensitive technology that must be protected from destructive overvoltages. Since 1937, CITEL has manufactured a complete line of Surge Protective Devices (SPD's) to protect vulnerable equipment from the harmful effects of lightning strikes and other line disturbances. CITEL is a world leader in surge protection solutions and provides a wide range of specialized protective products and components specifically engineered for transportation applications.

- AC Power Panel... **A** DS73RS-120; DS240S-120; M50-120T
- Antennas, Radios... **B** P8AX09-N/MF; P8AX09-N/FF
- RS485... **C** DLA-06D3; DLA2-06D3; DLA-12D3
- Camera Power... **D** DS220S-24DC (24Vac & Vdc); DS230S-48DC
- IP Cameras... **E** MJ8-POE-B (Ethernet); MJ8-Cat5E (Ethernet)
- Video... **F** DIN-BNC-HD
- Weigh Station Sensors... **G** BPLC
- PTZ Camera... **H** MSP-VP
- Ethernet Switches... **I** PCH
- LED Street Lights... **J** MLPC, MSB10

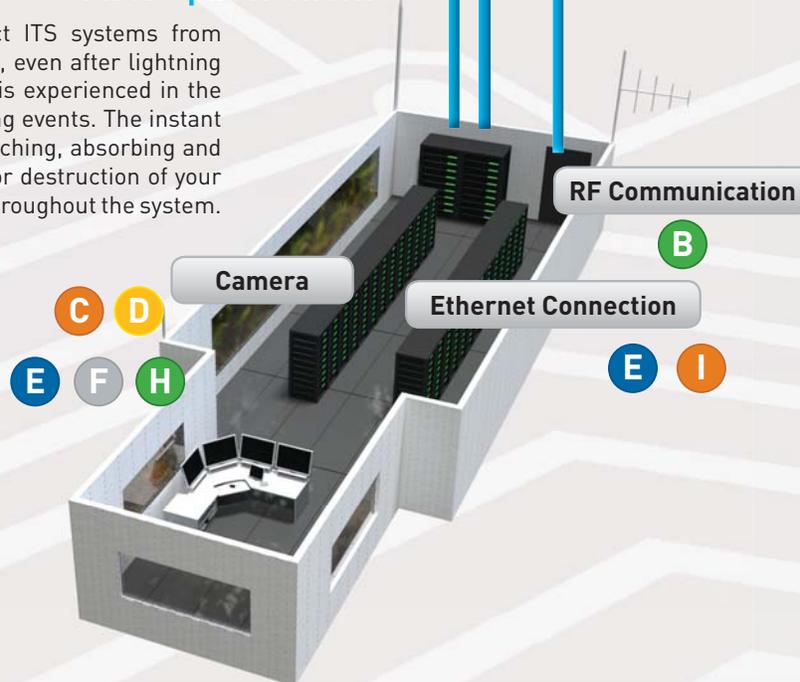
Surge Protective Devices for Traffic Remote Monitoring



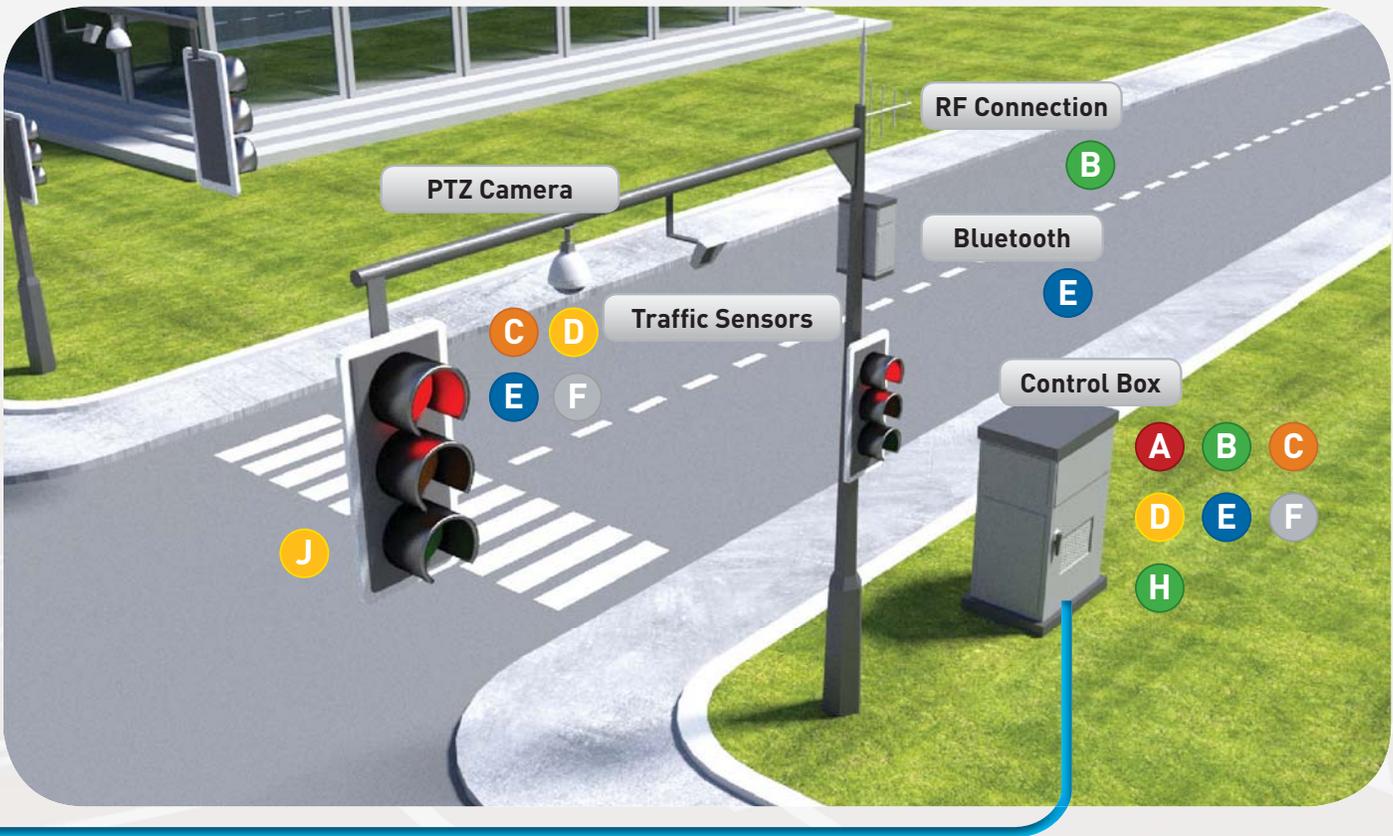
Fiber Optic Network

Surge Protective Devices are specifically engineered to protect ITS systems from these harmful surges so that the system can continue to operate, even after lightning surges. The SPD's are designed to react to any overvoltage that is experienced in the system, such as one that would be caused by lightning or switching events. The instant a surge is detected, the SPD is activated and goes to work. By catching, absorbing and safely redirecting the electrical surge, an SPD prevents damage or destruction of your equipment. In addition the SPD stops the surge from propagating throughout the system.

SPD's make it possible to easily prevent surges from destroying your ITS equipment. By conducting a risk analysis on your specific ITS system, you can determine the level of protection needed in order to maintain optimal, safe functionality and to prevent costly repairs or equipment replacement. Performing a risk analysis is based on factors such as the size of installation, location, the configuration of your ITS system and can be quickly done by a surge expert. It's a small step that can have a big impact on the overall effectiveness of your ITS system!



Surge Protective Devices for Intersections



Surge Protective Devices for Weigh Stations



Data surge protectors



Technical data	DLA-06D3	DLA2-06D3	DLA-12D3
Typical application	RS422		RS232/RS485
	PTZ remote control or other data transmission		
Configuration	1pair+shield	2 pair+shield	1pair+shield
Nominal line voltage	6V		12V
Max. line current	300mA		
Nominal discharge current	5kA (8/20µs)		
Maximum discharge current	20kA (8/20µs)		
Mounting/connection	DIN Rail / Screw Terminal		

Camera Power surge protectors



Technical data	DS220S-24DC	DS230S-48DC
Typical application	24-48 dc or ac power protection (PTZ Supply)	
Max. DC operating system	38Vdc	65Vdc
Max. AC operating system	30Vac	50Vac
Nominal discharge current	10kA (8/20µs)	15kA (8/20µs)
Maximum discharge current	20kA (8/20µs)	30kA (8/20µs)
Mounting/connection	DIN Rail / Screw Terminal	

POE + Ethernet surge protectors



Technical data	MJ8-POE-A or B	MJ8-Cat5E
Typical application	High PoE (mode A or B)	Cat5E Ethernet
Data Rate	1Gbps	
Voltage & Current pins rating	(1,2,3,6) 7.5Vdc (B mode), 60Vdc-1.2A (A mode) (4,5,7,8) 60Vdc-1.2A	8Vdc-1A
Nominal discharge current (per pin)	2kA (8/20µs)	
Total discharge current	16kA (8/20µs)	
Mounting/connection	Flange, Din Rail or Lug mounting / RJ45 (shield)	

Video surge protectors



Technical data	DIN-BNC-HD
Typical application	Video signal
Data rate	1Gbps
Max. signal voltage	7.5V
Max. line current	750mA
Nominal discharge	25kA (8/20µs)
Mounting/connection	Din Rail / BNC (female)



FDOT Approved

For additional applications and products contact your local CITELE sales rep.



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