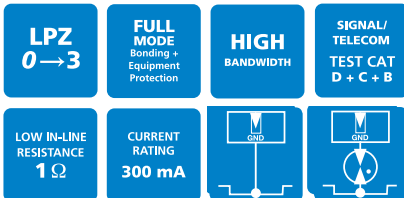


# Specific systems protection

## OVR CCTV Series

Combined Category D, C, B tested protector (to BS EN 61643) suitable for coaxial CCTV cables with BNC connectors (OVR CCTV/B) or twisted pair CCTV lines (OVR CCTV/T) on systems with either an earthed or an isolated screen. Not suitable for use on broadcast, satellite or cable TV systems. For use at boundaries up to LPZ 0 to protect against flashover (typically the service entrance location) through to LPZ 3 to protect sensitive electronic equipment.



### Features & benefits

- Very low let-through voltage (enhanced protection to IEC/BS EN 62305) between all lines - Full Mode protection
- Full Mode design capable of handling partial lightning currents as well as allowing continual operation of protected equipment
- Repeated protection in lightning intense environments
- 100 MHz bandwidth prevents the degradation of high frequency signals
- Low in-line resistance to minimize unnecessary reductions in signal strength and maximizes signalling distance
- Very low reflection coefficient/VSWR ensure that the protector doesn't disrupt system operations
- Suitable for either earthed or isolated screen systems
- Sturdy, conductive ABS housing for 2 way shielding - preventing emissions & providing signals with immunity from external interference
- Convenient holes for flat mounting on base or side
- Built-in DIN rail foot for easy installation on a top hat DIN rail
- OVR CCTV/T has colour coded terminals for a quick and easy installation check - grey for the dirty (line) end and green for the clean end
- Substantial earth stud to enable effective earthing
- Integral earthing plate for enhanced connection to earth via OVR CME kit

### Application

Use these protectors on the video cable to outdoor CCTV cameras and central control and monitoring equipment.

### Installation

Connect in series with the CCTV cable in a convenient place close to the equipment being protected. For outdoor CCTV cameras, protectors should be mounted in the junction box, or in a separate enclosure, close to the camera. Protect central control and monitoring equipment inside the building by installing protectors on all incoming or outgoing lines, either:

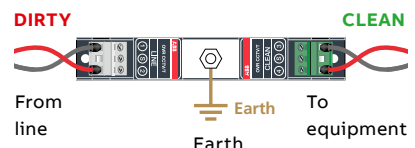
- near where they enter or leave the building, or
- close to the equipment being protected (or actually within its control panel).

### Accessories

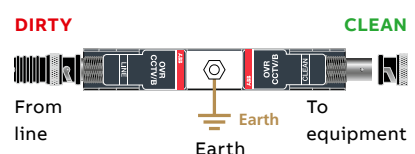
When CCTV protectors are installed in groups, or alongside protectors for signal and mains power lines, these can be mounted and earthed simultaneously on a OVR CME kit. An OVR CME 4 will accommodate the video, telemetry and power protectors to a camera. If protectors cannot be incorporated within an existing panel or enclosure, OVR WBX enclosures are available for up to 4, 8, 16 or 32 protectors and their associated OVR CME kit. The OVR WBX 4/GS is a secure IP66 enclosure suitable for a OVR CME 4 and associated protectors.



### Series connection for OVR CCTV/T



### Series connection for OVR CCTV/B



**NOTE:** Camera telemetry or control lines should be protected with a suitable Lightning Barrier from the OVR D or E Series. Protectors for the power supply to individual cameras (e.g. OVR 240-16A) and the mains supply to the control room are available. For coaxial RF (OVR RF Series) cable protectors and CATV systems (OVR CATV/F) are also available.

## OVR CCTV Series - Technical specification

Electrical specification	OVR CCTV/B	OVR CCTV/B-15V	OVR CCTV/B-30V	OVR CCTV/B-50V	OVR CCTV/T	OVR CCTV/T-15V	OVR CCTV/T-30V	OVR CCTV/T-50V
ABB order code	7TCA085400R0296	7TCA085400R0297	7TCA085400R0299	7TCA085400R0300	7TCA085400R0301	7TCA085400R0302	7TCA085400R0298	7TCA085400R0303
Nominal voltage <sup>(1)</sup> (peak-peak)	1 V				2 V			
Maximum working voltage $U_c^{(2)}$ (peak)	7.79 V	16.7 V	36.7 V	56.7 V	7.79 V	16.7 V	36.7 V	56.7 V
Current rating (signal)	300 mA							
In-line resistance ( $\pm 10\%$ )	1 $\Omega$ inserted in coax inner				1 $\Omega$ per line			
Bandwidth (-3 dB 75 $\Omega$ system) <sup>(3)</sup>	> 100 MHz							
Voltage standing wave ratio	< 1.2:1							
Transient specification	OVR CCTV/B	OVR CCTV/B-15V	OVR CCTV/B-30V	OVR CCTV/B-50V	OVR CCTV/T	OVR CCTV/T-15V	OVR CCTV/T-30V	OVR CCTV/T-50V
<b>Let-through voltage (all conductors)<sup>(4)</sup> Up</b>								
C2 test 4 kV 1.2/50 $\mu$ s, 2 kA 8/20 $\mu$ s to BS EN/EN/IEC 61643-21	39.5 V	55.0 V	78.0 V	105.0 V	39.5 V	55.0 V	78.0 V	105.0 V
C1 test 1 kV 1.2/50 $\mu$ s, 0.5 kA 8/20 $\mu$ s to BS EN/EN/IEC 61643-21	26.0 V	42.0 V	66.5 V	93.5 V	26.0 V	42.0 V	66.5 V	93.5 V
B2 test 4 kV 10/700 $\mu$ s to BS EN/EN/IEC 61643-21	16.0 V	27.2 V	47.5 V	73.6 V	16.0 V	27.2 V	47.5 V	73.6 V
5 kV, 10/700 $\mu$ s <sup>(5)</sup>	17.0 V	28.2 V	49.5 V	76.2 V	17.0 V	28.2 V	49.5 V	76.2 V
<b>Maximum surge current<sup>(6)</sup></b>								
D1 test – Per signal wire 10/350 $\mu$ s to BS EN/EN/IEC 61643-21:	2.5 kA				2.5 kA			
8/20 $\mu$ s to ITU (formerly CCITT):	–				5 kA			
– Per signal wire	10 kA				10 kA			
– Per pair	–				20 kA			
Mechanical specification	OVR CCTV/B variants				OVR CCTV/T variants			
Temperature range	-40 to +80°C							
Connection type	Coaxial BNC female				Screw terminal			
Conductor size (stranded)	Not applicable				2.5 mm²			
Earth connection	M6 stud							
Case Material	ABS UL94 V-0				ABS UL94 V-0			
Weight: – Unit – Packaged	0.08 kg 0.9 kg							
Dimensions	See diagram below							

<sup>(1)</sup> Nominal voltage (DC or AC peak) measured at <10  $\mu$ A leakage

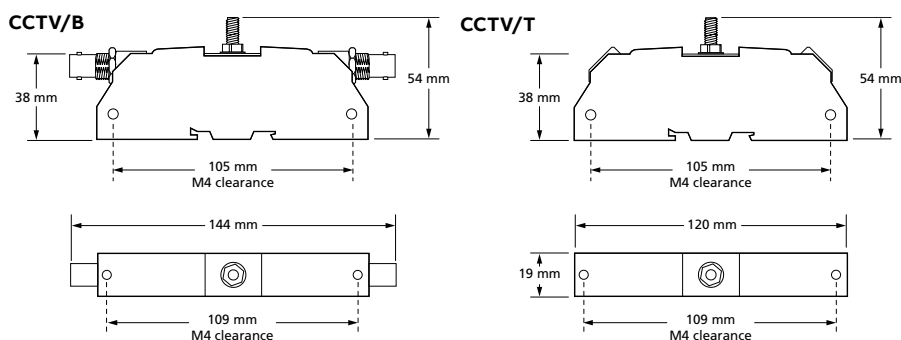
<sup>(2)</sup> Maximum working voltage (DC or AC peak) measured at 5 mA leakage

<sup>(3)</sup> Capacitance < 30 pF

<sup>(4)</sup> The maximum transient voltage let-through of the protector throughout the test ( $\pm 10\%$ ), line to line & line to earth. Screen to earth let-through voltage will be up to 600 V (with 5 kV 10/700 test), when protector is configured for use with non-earthed or isolated screen systems. Response time < 10 ns

<sup>(5)</sup> Test to IEC 61000-4-5:2006, ITU-T (formerly CCITT) K.20, K.21 and K.45, Telcordia GR-1089-CORE, Issue 2:2002, ANSI TIA/EIA/IS-968-A:2002 (formerly FCC Part 68)

<sup>(6)</sup> The installation and connectors external to the protector may limit the capability of the protector



## ABB order codes

Part	ABB order code	Part	ABB order code
OVR CME4	7TCA085400R0414	OVR WBX4	7TCA085410R0048
OVR CME8	7TCA085400R0415	OVR WBX4/GS	7TCA085410R0049
OVR CME16	7TCA085410R0045	OVR WBX8	7TCA085410R0050
OVR CME32	7TCA085410R0046	OVR WBX8/GS	7TCA085410R0051
		OVR WBX16/2/G	7TCA085410R0047