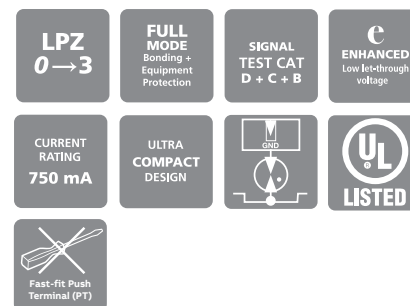


# Data & signal protection

## OVR Q Series



**Combined Category D, C, B (to IEC/EN 61643) Surge Protective Device (SPD) suitable for 4 twisted pair lines. Available for working voltages of up to 6, 15, 30, 50, 110 and 180 Volts. 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
- Almost twice as space efficient as smallest competitor
- Standard DIN module (18 mm) depth
- Removable (plug-in) terminals allow pre-wiring of cable looms, for easier installation
- Suitable for earthed or isolated screen systems
- Built-in DIN rail foot for clip-on mounting to top hat or G DIN rails
- Optional flat mounting on side
- 2.5 mm<sup>2</sup> terminals allow for larger cross section wiring, stranded wires terminated with ferrules or fitting two wires into a single terminal
- Fast fit screwless Push Terminal versions (OVR X/PT) allow quick tool-less cable connection saving installation time
- Very low resistance to minimize unwanted signal strength reductions
- Strong, flame retardant, ABS housing
- Colour coded terminals (grey for line, green for clean) give a quick and easy installation check
- Screen terminal enables easy connection of cable screen, maintaining continuity through the SPD between the input and output connectors.
- Simple, yet substantial, connection to earth via DIN rail
- OVR 06Q-180Q (and /PT variants) have UL497b approval under E240341

### Application

Use these SPDs where installation space is at a premium and large numbers of lines require protection.

### Accessories

Weather proof enclosures:

**OVR WBX SLQ** (with transparent lid)

**ABB order code**

7TCA085400R0326

**OVR WBX SLQ/G** (with opaque grey lid)

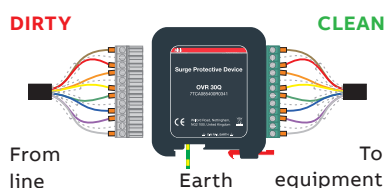
**ABB order code**

7TCA085400R0327

### Installation

Connect in series with the signal or data line either near where it enters or leaves the building or close to the equipment being protected. Install in a cabinet/cubicle close to the system's earth star point.

**OVR 06Q, OVR 15Q, OVR 30Q, OVR 50Q, OVR 110Q and OVR 180Q installed in series (in-line)**



**NOTE:** The OVR Q Series is also available for protection of RS 485 and RTD applications (OVR RS485Q, OVR RTDQ). Protectors for individual data and signal lines are available (OVR D Series and Slim Line OVR SL Series). Alternatively, for individual protectors with higher current or bandwidth use the OVR E and OVR H Series. For telecommunication applications use OVR TNQ Series.

## OVR Q Series - Technical specification

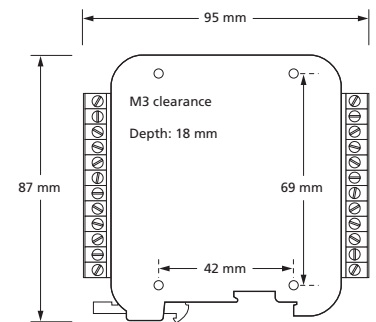
Electrical specification	OVR 06Q Series	OVR 15Q Series	OVR 30Q Series	OVR 50Q Series	OVR 110Q Series	OVR 180Q Series
Nominal voltage <sup>(1)</sup>	6 V	15 V	30 V	50 V	110 V	180 V
Maximum working voltage U <sub>c</sub> (RMS/DC) <sup>(2)</sup>	5 V / 7.79 V	13 V / 18.8 V	26 V / 37.8 V	41 V / 57.8 V	93 V / 132 V	130 V/190 V
Current rating (signal)	750 mA				500 mA	250 mA
In-line resistance (per line ±10%)	1.0 Ω				3.3 Ω	6.8 Ω
Bandwidth (-3 dB 50 Ω system)	45 MHz					
<b>Transient specification</b>						
<b>Let-through voltage (all conductors)<sup>(3)</sup> Up</b>						
C2 test 4 kV 1.2/50 μs, 2 kA 8/20 μs to BS EN/EN/IEC 61643-21	15.0 V	28.0 V	53.0 V	84.0 V	188 V	215 V
C1 test 1 kV, 1.2/50 μs, 0.5 kA 8/20 μs to BS EN/EN/IEC 61643-21	12.5 V	26.5 V	48.0 V	76.0 V	175 V	205 V
B2 test 4 kV 10/700 μs to BS EN/EN/IEC 61643-21	10.0 V	23.0 V	43.5 V	64.5 V	145 V	203 V
5 kV, 10/700 μs <sup>(4)</sup>	10.8 V	26.2 V	44.3 V	65.8 V	150 V	200 V
<b>Maximum surge current</b>						
D1 test 10/350 μs to BS EN/EN/IEC 61643-21:						
– Per signal wire	2.5 kA					
– Per pair	5 kA					
8/20 μs to ITU-T K.45:2003, IEEE C62.41.2:2002:						
– Per signal wire	10 kA					
– Per pair	20 kA					
<b>Mechanical specification</b>						
Temperature range	-40 to +80 °C					
Connection type	Pluggable 12 way screw terminal - maximum torque 0.6 Nm /PT version: Pluggable 12 way screwless Push Terminal					
Conductor size (stranded)	2.5 mm <sup>2</sup>					
Earth connection	Via DIN rail or M5 threaded hole in base of unit					
Case material	FR Polymer UL-94 V-0					
Weight: – Unit	0.1 kg					
– Packaged (each)	0.12 kg					
Dimensions	See diagram below					

<sup>(1)</sup> Nominal voltage (RMS/DC or AC peak) measured at < 5 μA (OVR 15Q, OVR 30Q, OVR 50Q, OVR 110Q, OVR 180Q) and < 200 μA (OVR 06Q)

<sup>(2)</sup> Maximum working voltage (RMS/DC or AC peak) measured at < 5 mA leakage (OVR 15Q, OVR 30Q, OVR 50Q, OVR 110Q, OVR 180Q) and < 10 mA (OVR 06Q)

<sup>(3)</sup> The maximum transient voltage let-through of the protector throughout the test (±10%), line to line & line to earth, both polarities. Response time < 10 ns

<sup>(4)</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)



\* Q/PT width is 106 mm

## ABB order codes

Part	ABB order code	Part	ABB order code	Part	ABB order code
OVR 06Q	7TCA085400R0333	OVR 30Q(UL)	7TCA085400R0568	OVR 110Q/PT(UL)	7TCA085400R0577
OVR 06Q(UL)	7TCA085400R0566	OVR 30Q/PT(UL)	7TCA085400R0575	OVR 180Q	7TCA085400R0463
OVR 06Q/PT(UL)	7TCA085400R0573	OVR 50Q	7TCA085400R0342	OVR 180Q(UL)	7TCA085400R0571
OVR 15Q	7TCA085400R0340	OVR 50Q(UL)	7TCA085400R0569	OVR 180Q/PT(UL)	7TCA085400R0578
OVR 15Q(UL)	7TCA085400R0567	OVR 50Q/PT(UL)	7TCA085400R0576	OVR WBX SLQ	7TCA085400R0326
OVR 15Q/PT(UL)	7TCA085400R0574	OVR 110Q	7TCA085400R0343	OVR WBX SLQ/G	7TCA085400R0327
OVR 30Q	7TCA085400R0341	OVR 110Q(UL)	7TCA085400R0570		