



Features

- Available with solid-state or gas tube overvoltage protection technology
- Optional heat coil or self-resetting PTC sneak current protection
- Polarized module with latching mechanism prevents incorrect and accidental insertion and removal



This series is obsolete and not recommended for new designs.

- Fail-Short design
- cULus Listed

4-Pin Protector Modules

Bourns® 4-Pin Protector Modules are designed for use with the MPC Central Office Connector Block (QCM486-series) and QTPET Protected Entrance Terminals. These modules are available with solid-state or gas tube overvoltage protection.

The 4-pin modules are designed to short to ground (also known as a “Fail-Short event”) when an electrical surge exceeds the capability of the SSOVP device or gas tube. This feature provides protection for personnel and equipment until the surge condition has cleared. Protector modules that “Fail-Short” must be replaced after the fault has been corrected.

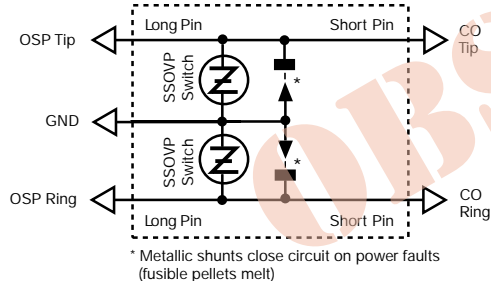
The 4-pin modules are also available with an option for heat coil or Positive Temperature Coefficient (PTC) sneak current protection. This feature protects digital equipment line cards against overheating caused by prolonged currents – referred to as sneak currents. Sneak currents are caused by induction on telephone lines caused by fault currents, overloads or unbalanced loads on nearby power lines. They may also be caused by direct contact with low-voltage power lines. The PTC is self-resetting; the heat coil operates by permanently shorting to ground and must be replaced after the fault is cleared.

All 4-pin modules are equipped with a latching mechanism that will retain the modules when installed in the detent position or when fully inserted. In the detent position, the equipment side of the circuit is disconnected from the outside plant pair. The latch must be depressed to move the modules, thus ensuring that protector modules will not fall out (leaving the outside plant pair unprotected) or become accidentally inserted. In addition, the modules are designed so they can only be inserted in the correct orientation.

4-Pin Solid-State Protector Modules

QMP11A5

A solid-state overvoltage protector (SSOVP) module to provide voltage protection to wiring and equipment. The module case is brown with a white “S” printed on the handle for visual identification.

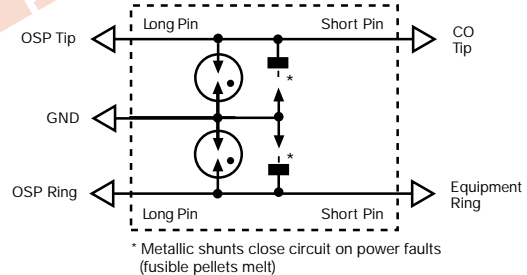


QMP11-Type Protector Module

4-Pin Gas Tube Protector Modules

QMP6A5

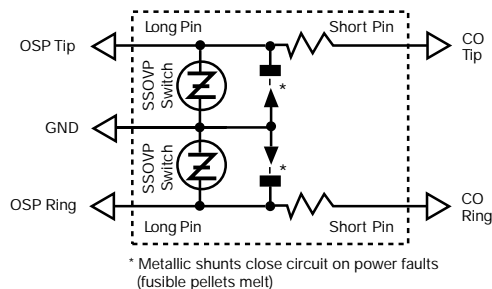
A gas tube overvoltage protector module to provide voltage protection to wiring and equipment. The module case is beige with no marking on the handle.



QMP6A5-Type Protector Module

QMP12A4P (PTC)

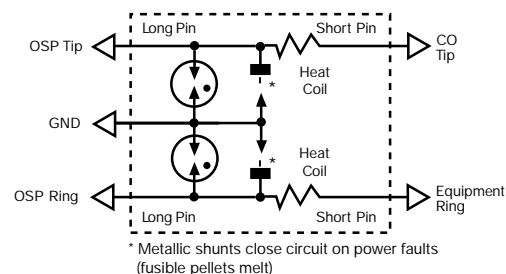
An SSOVP module with a self-resetting Positive Temperature Coefficient (PTC) is designed to provide voltage and sneak current protection to wiring and equipment. The QMP12A4P module case is black with a blue “S” printed on the handle for visual identification.



QMP12-Type Protector Module

QMP6A4 (Heat Coil)

A gas tube overvoltage protector module with heat coil to provide voltage and sneak current protection to wiring and equipment. The module case is beige with a black stripe on the handle for visual identification.



QMP6A4-Type Protector Module



WARNING Cancer and Reproductive Harm - www.P65Warnings.ca.gov

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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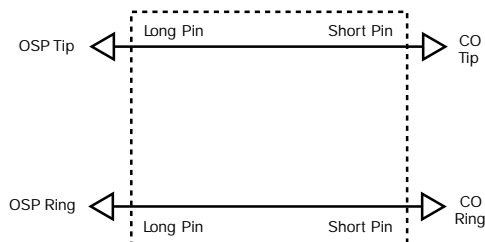
4-Pin Protector Modules

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4-Pin Unprotected Modules

QMP5A5

A module to provide a direct feed/disconnect option between an outside plant and equipment pair. The module case is gray with no marking on the handle.



QMP5A5-Type Module

Specifications

Note: All SSOVP protector modules are CSA and UL Listed for subscriber premises applications.

	Solid-State Module	Gas Tube Module
DC Limiting Voltage.....	345 V max. @ 2000 V/sec	300-475 V @ 2000 V/sec
Impulse Breakdown (V_{imp})	390 V max. @ 100 V/ μ sec	700 V max. @ 100 V/ μ sec
	400 V max. @ 1000 V/ μ sec	875 V max. @ 1000 V/ μ sec
Insulation Resistance (I_R) @ 50 to 200 VDC	100 megohms min.	1000 megohms min.
DC Holdover/Impulse Reset (-20 °C to +65 °C)	20 msec max.	20 msec max.
	@ 260 mA \pm 52 VDC	@ 260 mA \pm 52 VDC
	@ 200 mA \pm 135 VDC	@ 200 mA \pm 135 VDC
Impulse Life (-20 °C to +65 °C)		
Insulation Resistance	100 megohms min. @ 50 VDC	1000 megohms @ 50 VDC
Limiting Voltage during Surge.....	< 400 V	< 1000 V
Impulse Reset / DC Holdover.....	< 30 ms	< 30 ms
\pm 10 A, 10/1000 μ sec	Unlimited	1500 surges
\pm 100 A, 10/1000 μ sec	Unlimited	100 surges
\pm 300 A, 10/1000 μ sec	Fail-Short.....	50 surges
\pm 2,000 A, 10/250 μ sec	Fail-Short.....	5 surges
AC Life, 60 Hz		
10 A_{rms} for 1 second.....	5 surges, no fail.....	5 surges, no fail
1 A_{rms} for 1 second.....	60 surges, no fail	60 surges, no fail
0.5 A_{rms} for 30 seconds	1 surge, no fail.....	1 surge, no fail
End-of-Life	100 V/ μ s; Breakdown < 1000 V.....	100 V/ μ s; Breakdown < 1000 V
\pm 10 A, 10/1000 μ sec	3000 surges	3000 surges
\pm 100 A, 10/1000 μ sec	300 surges	300 surges
\pm 300 A, 10/1000 μ sec	100 surges	100 surges
\pm 10,000 A, 8/20 μ sec	Fail-short	1 surge
Capacitance.....	75 pF max.	7 pF max.
Sneak Current Protection	PTC, 9.5 ohm	Heat Coil, 4 ohm
Non-Operate.....	3 hr. min. @ 150 mA.....	3 hr. min. @ 350 mA
Operate.....	210 sec. max. @ 355 mA.....	210 sec. max. @ 540 mA
Resistance.....	9.3 ohms \pm 10 %	4 ohms max.
Resistance Imbalance	0.5 ohms max.	0.5 ohms max.
Safety		
4 A_{rms} , 15 min.....	Fail-Short.....	Fail-Short
10 A_{rms} , 15 min.....	Fail-Short.....	Fail-Short
30 A_{rms} , 15 min.....	Fail-Short.....	Fail-Short
60 A_{rms} , 3 sec.....	Fail-Short.....	Fail-Short
120 A_{rms} , 0.6 sec.....	Fail-Short.....	Does not cause a fire hazard
350 A_{rms} , 0.4 sec.....	Fail-Short.....	Does not cause a fire hazard
Storage Temperature.....	-40 °C to +65 °C.....	-40 °C to +65 °C

Note: All values at 20 °C except where noted. Nominal voltages provided, except where noted.

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4-Pin Protector Modules

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Packaging Specifications

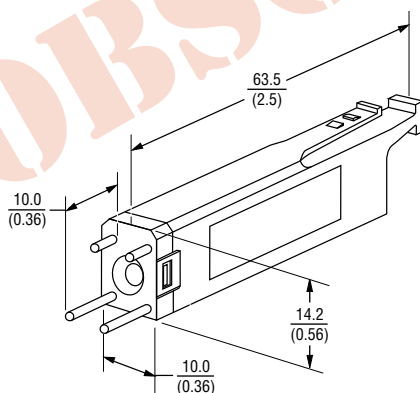
Standard Packaging	100 modules
Dimensions (H x W x D)	10 x 11 x 28 cm (3.75 x 4.5 x 11 in.)
Shipping Weight	
QMP5A5	1.1 kg (2.5 lb.)
All Other Models	1.6 kg (3.5 lb.)

How to Order

Product Code	Part Number	Description	Module Color	Handle Marking
QMP11A5	A0335242	Solid-State, 300 V	Brown	White "S"
QMP12A4P	QMP12A4P	Solid-State, 300 V, PTC	Black	Blue "S"
QMP6A5	A0260462	Gas Tube, 400 V	Beige	None
QMP6A4	A0264184	Gas Tube, 400 V, Heat Coil	Beige	Black Stripe
QMP5A5	A0260461	Unprotected	Gray	None

Note: Order by Part Number.

Product Dimensions



DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

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