### **Praesideo Audio Expander PRS-4AEX4**

### **Architects’ and Engineers’ Specifications**

The audio expander shall have a network interface for fiber optical hybrid cabling with dual network connections, capable of redundant loop operation. The network interface of the audio expander shall support digital audio and control signals.

The audio expander shall provide 4 analog audio input channels that can be routed dynamically to the network, and 4 analog audio output channels to which network audio channels can be routed dynamically.

The audio expander shall contain a digital audio processor with a 3-band fully parametric equalizer, semi parametric shelving equalizers for bass and treble control and sensitivity for each audio input. Furthermore, the digital audio processor shall perform 3-band full parametric equalization, semi parametric shelving equalizers for bass and treble control, volume control and 20 kHz supervision pilot tone generation for all audio outputs. It shall be possible to remotely configure all audio settings via the network interface.

The audio expander shall contain 4 transformer balanced analog audio inputs supporting line levels, of which 2 can be configured for microphone sensitivity, that can be used for ambient noise sensing microphones or auxiliary audio sources, e.g. for making calls or for distribution of background music. The sensitivity and operation mode of these inputs shall be configurable via the network interface. In microphone mode the unit shall provide configurable phantom power supply to support electret/condenser microphones. The audio expander shall contain 4 transformer balanced audio outputs supporting line level. All audio inputs and outputs shall have both XLR connectors and Cinch (RCA) connectors.

The audio expander shall be powered from the network for easy installation. The unit shall be able to operate at a maximum operating temperature of 55°C to accommodate high density rack mounting.

The audio expander shall have a supervision system to monitor its operation conditions. Network connectivity status and fault conditions shall be displayed on a back-lit LCD on the front panel. In normal operation conditions this LCD will show a configurable name for the audio expander to allow for easy identification and a level indicator bar for each input and output. Fault conditions shall also be reported by the unit to a network connected system controller for logging purposes.

The audio expander shall have 8 control inputs for activation switches, with configurable supervision for open and short circuits. The control inputs shall have configurable functionality, such as automatically starting an emergency alarm in case of activation by a fire detector or control of background music volume.

The audio expander shall have 5 control relay outputs, which can be configured via the network for various functions, such as fault indication or zone activity indication.

The audio expander shall be certified for compliancy to the standard EN 54-16 for emergency sound systems.

The audio expander cabinet shall be 19”-wide and 2U-high for easy rack mounting without the need for free rack space between units.

The audio expander shall be a Praesideo PRS-4AEX4, manufactured by Bosch Security Systems.