Ampac

Fire detection and evacuation solutions that save lives.

ZoneSense Plus AR

Conventional Fire Alarm Control Panel

Features

- Dedicated Agent Release system
- Comprehensive System Status the AR panel includes a number of system status indicators that facilitates ease of operation and maintenance
- Local Control Station with control and indication - mimics full status of the Agent Release panel.
- User interface and operation based around Industry Fire Emergency procedures – ensures that the system installed is intuitive and easy to use
- Panel is robust and reliable the Agent Release is based on a tried and tested ZoneSense PLUS
- Dual action Manual Call Point
- Agent Release Panel is compliant with AS4214

Description

Based on the ZoneSense PLUS Fire Alarm Control Panel, the AR version is fitted with a dedicated Agent Release Control card and Agent Termination board plus a dual action yellow manual call point as standard.

The ZoneSense PLUS AR (Agent Release) Panel supports Pyrogen agent or agents released using either Metron or a solenoid.

Enclosed in a metal cabinet, the ZoneSense PLUS AR is available in either four (4) or eight (8) zones with each zone accommodating up to 40 conventional detectors.

Each zone can be programmed to function in one of the following modes:

- Normal (latching)
- Alarm Verification Facility (AVF)
- Non-latching
- Self Reset
- Dual selectable Agent Release



ZoneSense Plus AR (Oyster Grey cabinet shown)

Up to four Local Control Stations can be connected to the *ZoneSense PLUS AR* panel which allows the manual release, or inhibit release of the agent from remote locations.

The *ZoneSense PLUS AR* Panel includes the following inputs for system monitoring:

- Pressure switch monitors release of agent
- Low pressure switch active if pressure in an agent storage cylinder drops below a set level
- Interlock active if the agent release manual lock
 off valve has been operated

Main and reserve agent release storage cylinders are supported.

The AR panel supports a 2-wire connection to various warning signs. The 2-wire connection supports both single or dual stage signs.

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Specifications

| Nom. Operating voltage27 VDCPower Supply Current2 A (max)Quiescent Current40.5 mA (min)No of Zones4 or 8, 2 WireZone MonitoringOpen and Short circuitZone Quiescent Current4mA, 10uF EOLNo. of Detectors per Zone40 maxZone End Of Line Value3K30 (default), 4K70, 6K80, 10K0 and 10uF (Optional)EXT Bell Output500mA (max) 10K0 EOL monitoredWarning Sys Output500mA (max) 10K0 EOL monitoredACF Output500mA (max) 10K0 EOL monitoredASE OutputS00mA (max) 10K0 EOL monitoredFault Output RelayNO, C, NC Contact: 1A @ 30VDCFault Output RelayNO, C, NC Contact: 1A @ 30VDCReset/Buzzer OutputS00mA @ 24VDC 10K0 EOL monitoredComms OutputRS485Operating Temperature-5° to +55° CRelative HumidityMonitored InputInterlock InputMonitored InputInterlock InputVolt Free Changeover 1A@24VDCSystem Inoperative OutputVolt Free Changeover 1A@24VDCSystem Inoperative OutputVolt Free Changeover 1A@24VDCSystem Inoperative OutputVolt Free Changeover 1A@24VDCSystem Inoperative OutputWonitoredStage 2 OutputMonitoredRelease Initial Agent OutputMonitored | | |
|--|--------------------------------|---------------------------------------|
| Power Supply Current2 A (max)Quiescent Current40.5 mA (min)No of Zones4 or 8, 2 WireZone MonitoringOpen and Short circuitZone Quiescent Current4mA, 10uF EOLNo. of Detectors per Zone40 maxZone End Of Line Value3K3Ω (default), 4K7Ω, 6K8Ω, 10KΩ and 10uF (Optional)EXT Bell Output500mA (max) 10KΩ EOL monitoredWarning Sys Output500mA (max) 10KΩ EOL monitoredACF Output500mA (max) 10KΩ EOL monitoredASE Output500mA (max) 10KΩ EOL monitoredFire Alarm Output RelayNO, C, NC Contact: 1A @ 30VDCFault Output RelayNO, C, NC Contact: 1A @ 30VDCAuxiliary DC Output500mA @ 24VDC 10KΩ EOL monitoredComms OutputRs485Operating Temperature-5° to +55° CRelative HumidityMonitored InputInterlock InputMonitored InputInterlock InputVolt Free Changeover 1A@24VDC 25ystem Inoperative OutputSystem Inoperative OutputVolt Free Changeover 1A@24VDC 26u DutputSystem Inoperative OutputVolt Free Changeover 1A@24VDC 24VDCSystem Inoperative OutputMonitored InputGas Fired OutputMonitoredSystem Inoperative OutputMonitoredSys | Mains Supply voltage | 204 – 264 VAC @ 47 – 63Hz |
| Quiescent Current40.5 mA (min)No of Zones4 or 8, 2 WireZone MonitoringOpen and Short circuitZone Quiescent Current4mA, 10uF EOLNo. of Detectors per Zone40 maxZone End Of Line Value3K3Ω (default), 4K7Ω, 6K8Ω, 10KΩ and 10uF (Optional)EXT Bell Output500mA (max) 10KΩ EOL monitoredWarning Sys Output500mA (max) 10KΩ EOL monitoredACF Output500mA (max) 10KΩ EOL monitoredASE Output500mA (max) 10KΩ EOL monitoredFire Alarm Output RelayNO, C, NC Contact: 1A @ 30VDCFault Output RelayNO, C, NC Contact: 1A @ 30VDCReset/Buzzer OutputS00mA @ 24VDC 10KΩ EOL monitoredReset/Buzzer OutputCoren Collector, 40mA 15sec pulseComms OutputS5% or 75% non condensingDedicated Agent Release InputsMonitored InputInterlock InputMonitored InputGas Fired OutputVolt Free Changeover 1A@24VDC 10kΩ EID uputSystem Inoperative OutputVolt Free Changeover 1A@24VDCSystem Inoperative OutputMonitoredSystem Inoperative OutputMonitoredStage 1 OutputMonitoredStage 2 OutputMonitoredMonitoredMonitoredStage 2 OutputMonitoredMonitoredMonitoredStage 1 OutputMonitoredStage 1 OutputMonitoredMonitoredMonitoredStage 2 OutputMonitoredMonitoredMonitoredStage 1 OutputMonitoredMonitoredMo | Nom. Operating voltage | 27 VDC |
| No of Zones4 or 8, 2 WireZone MonitoringOpen and Short circuitZone Quiescent Current4mA, 10uF EOLNo. of Detectors per Zone40 maxZone End Of Line Value3K3Ω (default), 4K7Ω, 6K8Ω, 10KΩ and 10uF (Optional)EXT Bell Output500mA (max) 10KΩ EOL monitoredWarning Sys Output500mA (max) 10KΩ EOL monitoredACF Output500mA (max) 10KΩ EOL monitoredASE Output500mA (max) 10KΩ EOL monitoredFire Alarm Output RelayNO, C, NC Contact: 1A @ 30VDCFault Output RelayNO, C, NC Contact: 1A @ 30VDCAckFluzzer OutputS00mA @ 24VDC 10KΩ EOL monitoredReset/Buzzer OutputOpen Collector, 40mA 15sec pulseComms Output-5° to +55° CRelative Humidity25% - 75% non condensingDedicated Agent Release InputsMonitored InputLow Pressure Switch InputMonitored InputGas Fired OutputVolt Free Changeover 1A@24VDCSystem Inoperative OutputVolt Free Changeover 1A@24VDCSystem Inoperative OutputWonitoredStage 1 OutputMonitoredStage 2 OutputMonitoredMonitoredStage 2 Output | Power Supply Current | 2 A (max) |
| Zone MonitoringOpen and Short circuitZone Quiescent Current4mA, 10uF EOLNo. of Detectors per Zone40 maxZone End Of Line Value3K30 (default), 4K70, 6K80, 10K0 and 10uF (Optional)EXT Bell Output500mA (max) 10K0 EOL monitoredWarning Sys Output500mA (max) 10K0 EOL monitoredACF Output500mA (max) 10K0 EOL monitoredASE Output500mA (max) 10K0 EOL monitoredFire Alarm Output RelayNO, C, NC Contact: 1A @ 30VDCFault Output RelayNO, C, NC Contact: rating: 1A @ 30VDCAuxiliary DC Output500mA @ 24VDC 10K0 EOL monitoredReset/Buzzer OutputOpen Collector, 40mA 15sec pulseComms Output25% - 75% non condensingDedicated Agent Release InputsMonitored InputLow Pressure Switch InputMonitored InputGas Fired OutputVolt Free Changeover 1A@24VDC 10K0 Erec Changeover 1A@24VDCSystem Inoperative OutputVolt Free Changeover 1A@24VDC MonitoredStage 1 OutputMonitoredStage 2 OutputMonitoredRelease Initial Agent OutputMonitored current limited 2A max | Quiescent Current | 40.5 mA (min) |
| Zone Quiescent Current4mA, 10uF EOLNo. of Detectors per Zone40 maxZone End Of Line Value3K3Ω (default), 4K7Ω, 6K8Ω, 10KΩ and 10uF (Optional)EXT Bell Output500mA (max) 10KΩ EOL monitoredWarning Sys Output500mA (max) 10KΩ EOL monitoredACF Output500mA (max) 10KΩ EOL monitoredACF Output500mA (max) 10KΩ EOL monitoredASE Output500mA (max) 10KΩ EOL monitoredFire Alarm Output RelayNO, C, NC Contact: 1A @ 30VDCFault Output RelayNO, C, NC Contact: rating: 1A @ 30VDCAuxiliary DC Output500mA @ 24VDC 10KΩ EOL monitoredReset/Buzzer OutputOpen Collector, 40mA 15sec pulseComms Output85485Operating Temperature-5° to +55° CRelative Humidity25% - 75% non condensingDedicated Agent Release InputsMonitored InputInterlock InputMonitored InputGas Fired OutputVolt Free Changeover 1A@24VDCSystem Inoperative OutputVolt Free Changeover 1A@24VDCStage 1 OutputMonitoredStage 2 OutputMonitoredRelease Initial Agent OutputMonitored | No of Zones | 4 or 8, 2 Wire |
| No. of Detectors per Zone40 maxZone End Of Line Value3K3Ω (default), 4K7Ω, 6K8Ω, 10KΩ and 10UF (Optional)EXT Bell Output500mA (max) 10KΩ EOL monitoredWarning Sys Output500mA (max) 10KΩ EOL monitoredACF Output500mA (max) 10KΩ EOL monitoredASE Output500mA (max) 10KΩ EOL monitoredASE OutputNO, C, NC Contact: 1A @ 30VDCFault Output RelayNO, C, NC Contact: 1A @ 30VDCFault Output RelayNO, C, NC Contact: 1A @Axiliary DC OutputS00mA @ 24VDC 10KΩ EOL monitoredReset/Buzzer OutputOpen Collector, 40mA 15sec pulseComms OutputRS485Operating Temperature-5° to +55° CRelative Humidity25% - 75% non condensingDedicated Agent Release InputsMonitored InputInterlock InputMonitored InputGas Fired OutputVolt Free Changeover 1A@24VDCSystem Inoperative OutputVolt Free Changeover 1A@24VDCStage 1 OutputMonitoredRelease Initial Agent OutputMonitored | Zone Monitoring | Open and Short circuit |
| Zone End Of Line Value3K3Ω (default), 4K7Ω, 6K8Ω, 10KΩ and 10UF (Optional)EXT Bell Output500mA (max) 10KΩ EOL monitoredWarning Sys Output500mA (max) 10KΩ EOL monitoredACF Output500mA (max) 10KΩ EOL monitoredASE Output500mA (max) 10KΩ EOL monitoredASE OutputNO, C, NC Contact: 1A @ 30VDCFault Output RelayNO, C, NC Contact: rating: 1A @ 30VDCAuxiliary DC OutputS00mA @ 24VDC 10KΩ EOL monitoredReset/Buzzer OutputOpen Collector, 40mA 15sec pulseComms OutputR5485Operating Temperature-5° to +55° CRelative Humidity25% - 75% non condensingDedicated Agent Release InputsMonitored InputLow Pressure Switch InputMonitored InputGas Fired OutputVolt Free Changeover 1A@24VDC System Inoperative OutputStage 1 OutputMonitoredStage 2 OutputMonitoredRelease Initial Agent OutputMonitored | Zone Quiescent Current | 4mA, 10uF EOL |
| 10uF (Optional)EXT Bell Output500mA (max) 10KΩ EOL monitoredWarning Sys Output500mA (max) 10KΩ EOL monitoredACF Output500mA (max) 10KΩ EOL monitoredASE Output500mA (max) 10KΩ EOL monitoredFire Alarm Output RelayNO, C, NC Contact: 1A @ 30VDCFault Output RelayNO, C, NC Contact rating: 1A @ 30VDCAuxiliary DC Output500mA @ 24VDC 10KΩ EOL monitoredReset/Buzzer OutputOpen Collector, 40mA 15sec pulseComms Output85485Operating Temperature-5° to +55° CRelative Humidity25% - 75% non condensingPressure Switch InputMonitored InputLow Pressure Switch InputMonitored InputGas Fired OutputVolt Free Changeover 1A@24VDC System Inoperative OutputStage 1 OutputMonitoredRelease Initial Agent OutputMonitoredRelease Initial Agent OutputMonitored current limited 2A max | No. of Detectors per Zone | 40 max |
| Warning Sys Output500mA (max) 10KΩ EOL monitoredACF Output500mA (max) 10KΩ EOL monitoredASE Output500mA (max) 10KΩ EOL monitoredFire Alarm Output RelayNO, C, NC Contact: 1A @ 30VDCFault Output RelayNO, C, NC Contact rating: 1A @ 30VDCAuxiliary DC Output500mA @ 24VDC 10KΩ EOL monitoredReset/Buzzer OutputOpen Collector, 40mA 15sec pulseComms OutputRS485Operating Temperature-5° to +55° CRelative Humidity25% - 75% non condensingPressure Switch InputMonitored InputInterlock InputVolt Free Changeover 1A@24VDCGas Fired OutputVolt Free Changeover 1A@24VDCSystem Inoperative OutputMonitoredStage 1 OutputMonitoredRelease Initial Agent OutputMonitored | Zone End Of Line Value | |
| ACF Output500mA (max) 10KΩ EOL monitoredASE Output500mA (max) 10KΩ EOL monitoredFire Alarm Output RelayNO, C, NC Contact: 1A @ 30VDCFault Output RelayNO, C, NC Contact rating: 1A @ 30VDCAuxiliary DC Output500mA @ 24VDC 10KΩ EOL monitoredReset/Buzzer OutputOpen Collector, 40mA 15sec pulseComms OutputRS485Operating Temperature-5° to +55° CRelative Humidity25% - 75% non condensingDedicated Agent Release InputsMonitored InputInterlock InputMonitored InputGas Fired OutputVolt Free Changeover 1A@24VDCSystem Inoperative OutputVolt Free Changeover 1A@24VDCStage 1 OutputMonitoredRelease Initial Agent OutputMonitored urrent limited 2A max | EXT Bell Output | 500mA (max) $10K\Omega$ EOL monitored |
| ASE Output500mA (max) 10KΩ EOL monitoredFire Alarm Output RelayNO, C, NC Contact: 1A @ 30VDCFault Output RelayNO, C, NC Contact: rating: 1A @ 30VDCAuxiliary DC Output500mA @ 24VDC 10KΩ EOL monitoredReset/Buzzer OutputOpen Collector, 40mA 15sec pulseComms OutputRS485Operating Temperature-5° to +55° CRelative Humidity25% - 75% non condensingDedicated Agent Release InputsMonitored InputInterlock InputMonitored InputInterlock InputVolt Free Changeover 1A@24VDCSystem Inoperative OutputVolt Free Changeover 1A@24VDCStage 1 OutputMonitoredRelease Initial Agent OutputMonitored current limited 2A max | Warning Sys Output | 500mA (max) $10K\Omega$ EOL monitored |
| Fire Alarm Output RelayNO, C, NC Contact: 1A @ 30VDCFault Output RelayNO, C, NC Contact rating: 1A @ 30VDCAuxiliary DC Output500mA @ 24VDC 10KΩ EOL monitoredReset/Buzzer OutputOpen Collector, 40mA 15sec pulseComms OutputRS485Operating Temperature-5° to +55° CRelative Humidity25% - 75% non condensingDedicated Agent Release InputsMonitored InputInterlock InputMonitored InputInterlock InputVolt Free Changeover 1A@24VDCSystem Inoperative OutputVolt Free Changeover 1A@24VDCStage 1 OutputMonitoredRelease Initial Agent OutputMonitored current limited 2A max | ACF Output | 500mA (max) 10KΩ EOL monitored |
| Fault Output RelayNO, C, NC Contact rating: 1A @ 30VDCAuxiliary DC Output500mA @ 24VDC 10KΩ EOL monitoredReset/Buzzer OutputOpen Collector, 40mA 15sec pulseComms OutputRS485Operating Temperature-5° to +55° CRelative Humidity25% - 75% non condensingDedicated Agent Release InputsMonitored InputInterlock InputMonitored InputGas Fired OutputVolt Free Changeover 1A@24VDCStage 1 OutputMonitoredRelease InputsMonitoredRelease InputsMonitoredRelease InputsMonitored InputBarterlock InputMonitored InputGas Fired OutputVolt Free Changeover 1A@24VDCStage 1 OutputMonitoredRelease Initial Agent OutputMonitored Input | ASE Output | 500mA (max) 10KΩ EOL monitored |
| 30VDCAuxiliary DC Output30VDCAuxiliary DC Output500mA @ 24VDC 10KΩ EOL monitoredReset/Buzzer OutputOpen Collector, 40mA 15sec pulseComms OutputRS485Operating Temperature-5° to +55° CRelative Humidity25% - 75% non condensingDedicated Agent Release InputsMonitored InputInterlock InputMonitored InputInterlock InputVolt Free Changeover 1A@24VDCSystem Inoperative OutputVolt Free Changeover 1A@24VDCStage 1 OutputMonitoredRelease Initial Agent OutputMonitored current limited 2A max | Fire Alarm Output Relay | NO, C, NC Contact: 1A @ 30VDC |
| 10KΩ EOL monitoredReset/Buzzer OutputOpen Collector, 40mA 15sec pulseComms OutputRS485Operating Temperature-5° to +55° CRelative Humidity25% - 75% non condensingDedicated Agent Release Inputsand OutputsPressure Switch InputMonitored InputLow Pressure Switch InputMonitored InputInterlock InputVolt Free Changeover 1A@24VDCSystem Inoperative OutputVolt Free Changeover 1A@24VDCStage 1 OutputMonitoredRelease Initial Agent OutputMonitored current limited 2A max | Fault Output Relay | |
| Comms OutputRS485Operating Temperature-5° to +55° CRelative Humidity25% - 75% non condensingDedicated Agent Release Inputsand OutputsPressure Switch InputMonitored InputLow Pressure Switch InputMonitored InputInterlock InputVolt Free Changeover 1A@24VDCSystem Inoperative OutputVolt Free Changeover 1A@24VDCStage 1 OutputMonitoredRelease Initial Agent OutputMonitored current limited 2A max | Auxiliary DC Output | - |
| Operating Temperature-5° to +55° CRelative Humidity25% - 75% non condensingDedicated Agent Release Inputsand OutputsPressure Switch InputMonitored InputLow Pressure Switch InputMonitored InputInterlock InputMonitored InputGas Fired OutputVolt Free Changeover 1A@24VDCSystem Inoperative OutputMonitoredStage 1 OutputMonitoredRelease Initial Agent OutputMonitored current limited 2A max | Reset/Buzzer Output | Open Collector, 40mA 15sec pulse |
| Relative Humidity25% - 75% non condensingDedicated Agent Release Inputsand OutputsPressure Switch InputMonitored InputLow Pressure Switch InputMonitored InputInterlock InputMonitored InputGas Fired OutputVolt Free Changeover 1A@24VDCSystem Inoperative OutputVolt Free Changeover 1A@24VDCStage 1 OutputMonitoredRelease Initial Agent OutputMonitored current limited 2A max | Comms Output | RS485 |
| Dedicated Agent Release Inputs and Outputs Pressure Switch Input Monitored Input Low Pressure Switch Input Monitored Input Interlock Input Monitored Input Gas Fired Output Volt Free Changeover 1A@24VDC System Inoperative Output Volt Free Changeover 1A@24VDC Stage 1 Output Monitored Stage 2 Output Monitored Release Initial Agent Output Monitored current limited 2A max | Operating Temperature | -5° to +55° C |
| Pressure Switch InputMonitored InputLow Pressure Switch InputMonitored InputInterlock InputMonitored InputGas Fired OutputVolt Free Changeover 1A@24VDCSystem Inoperative OutputVolt Free Changeover 1A@24VDCStage 1 OutputMonitoredStage 2 OutputMonitoredRelease Initial Agent OutputMonitored current limited 2A max | Relative Humidity | 25% - 75% non condensing |
| Low Pressure Switch InputMonitored InputInterlock InputMonitored InputGas Fired OutputVolt Free Changeover 1A@24VDCSystem Inoperative OutputVolt Free Changeover 1A@24VDCStage 1 OutputMonitoredStage 2 OutputMonitoredRelease Initial Agent OutputMonitored current limited 2A max | Dedicated Agent Release Inputs | and Outputs |
| Interlock InputMonitored InputGas Fired OutputVolt Free Changeover 1A@24VDCSystem Inoperative OutputVolt Free Changeover 1A@24VDCStage 1 OutputMonitoredStage 2 OutputMonitoredRelease Initial Agent OutputMonitored current limited 2A max | Pressure Switch Input | Monitored Input |
| Gas Fired OutputVolt Free Changeover 1A@24VDCSystem Inoperative OutputVolt Free Changeover 1A@24VDCStage 1 OutputMonitoredStage 2 OutputMonitoredRelease Initial Agent OutputMonitored current limited 2A max | Low Pressure Switch Input | Monitored Input |
| System Inoperative OutputVolt Free Changeover 1A@24VDCStage 1 OutputMonitoredStage 2 OutputMonitoredRelease Initial Agent OutputMonitored current limited 2A max | Interlock Input | Monitored Input |
| Stage 1 OutputMonitoredStage 2 OutputMonitoredRelease Initial Agent OutputMonitored current limited 2A max | Gas Fired Output | Volt Free Changeover 1A@24VDC |
| Stage 2 Output Monitored Release Initial Agent Output Monitored current limited 2A max | System Inoperative Output | Volt Free Changeover 1A@24VDC |
| Release Initial Agent Output Monitored current limited 2A max | Stage 1 Output | Monitored |
| | Stage 2 Output | Monitored |
| Release Reserve Agent Output Monitored current limited 2A max | Release Initial Agent Output | Monitored current limited 2A max |
| | Release Reserve Agent Output | Monitored current limited 2A max |

| Item Numbers | |
|----------------|-------------------------------|
| 2553-0410-0100 | ZoneSense Plus AR 4 Zone (AS) |
| 2553-0810-0100 | ZoneSense Plus AR 8 Zone (AS) |
| 4210-0040 | Battery Cabinet |
| 4210-0042 | Surround |

| Mechanical | |
|--------------------------------------|--------------------------|
| Material | 1.2mm Mild Steel |
| Finish | Surf Mist Ripple |
| Cabinet Dimensions (mm) | 505(H) × 405(W) × 150(D) |
| Ancillary Cabinet Dimensions (mm) | 255(H) × 405(W) × 150(D) |
| Weight packed ex Batteries | Metal 8.5kg |