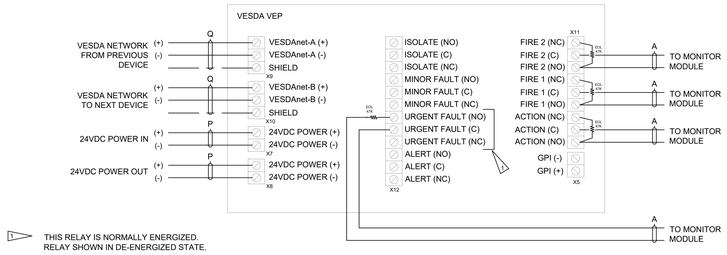
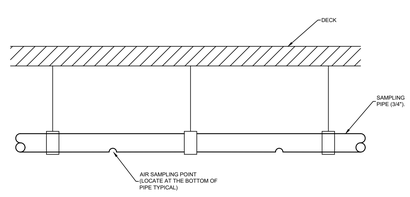


VESDA VEP WIRING DETAIL

VESDA SYSTEM

VEP WIRING DETAIL

SEE INSTALLATION INSTRUCTIONS FOR ADDITIONAL INFORMATION



VESDA - SAMPLING PIPE DETAIL

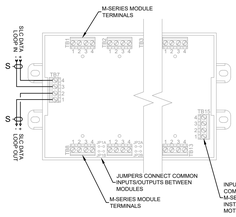
VESDA SYSTEM

SAMPLING PIPE DETAIL

INSTALLATION NOTES

1. SUPPORT PIPE ON NO GREATER THAN 5 FOOT CENTERS FOR CEILING INSTALLATION.
2. LOCATE AIR SAMPLING PIPE AS INDICATED ON THE DRAWINGS BUT NOT FARTHER THAN 6 INCHES FROM THE CEILING SLAB.

SEE INSTALLATION INSTRUCTIONS FOR ADDITIONAL INFORMATION



WIRING DIAGRAM

EST SIGA-UIO6R

UNIVERSAL INPUT/OUTPUT MOTHERBOARD

OPERATING VOLTAGE 15.20 TO 19.95 VDC

DIMENSIONS
BOARD (H × W × D) 4.3 × 9.56 × 3.2 IN.

COMPATIBLE BOXES
EST MFC-A, 2-WBOX SERIES, 3-CAB SERIES, RACCR SERIES, 3-RCC SERIES, OR ANY UL LISTED FIRE ALARM ENCLOSURE THAT MEETS CLEARANCE REQUIREMENTS OF 1 INCH MINIMUM AROUND THE UIO6R, AND 1/2 INCH ABOVE THE M-SERIES MODULES.

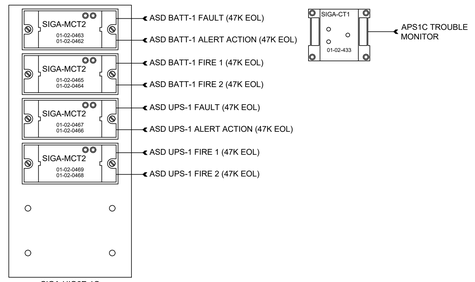
OPERATING ENVIRONMENT
TEMPERATURE 32 TO 120° F
RELATIVE HUMIDITY 0 TO 93% NON-CONDENSING

INSTALLATION NOTES

1. INSTALL MOTHERBOARD INTO BACKBOX USING SELF TAPPING SCREWS.
2. GROUP ALL MODULES WITH NONPOWER-LIMITED SOURCES TO THE RIGHT OF THE MOTHERBOARD AND ROUTE THEIR WIRING TO THE RIGHT.
3. GROUP ALL MODULES WITH POWER-LIMITED SOURCES TO THE LEFT OF THE MOTHERBOARD AND ROUTE THEIR WIRING TO THE LEFT.
4. MAINTAIN 1/4-INCH SEPARATION BETWEEN POWER-LIMITED AND NON POWER-LIMITED WIRING.
5. WIRE THE MOTHERBOARD AS SHOWN HERE AND ON THE MODULE INSTALLATION INSTRUCTIONS.

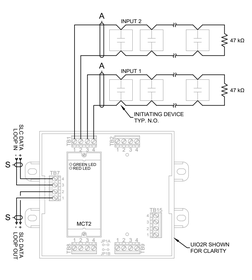
SEE INSTALLATION INSTRUCTIONS FOR ADDITIONAL INFORMATION

UNIVERSAL INPUT/OUTPUT MOTHERBOARD - WIRING DIAGRAM
EST SIGA-UIO6R



EXISTING MODULES, REPLACE LIKE FOR LIKE AS NEEDED DUE TO FIRE DAMAGE.

1 LEVEL 1 - UIO6R 1C
APS1C



WIRING DIAGRAM

EST SIGA-MCT2

DUAL INPUT MODULE

OPERATING VOLTAGE 15.20 TO 19.95 VDC
GROUND FAULT IMPEDANCE 10 kΩ
INITIATING DEVICE CIRCUIT (IDC)
EOL RESISTOR VALUE 47 kΩ, UL LISTED
CIRCUIT RESISTANCE 50 Ω (25 Ω PER WIRE), MAX
CIRCUIT CAPACITANCE 0.1 µF MAX
CIRCUIT DESIGNATION
SIGNALING LINE CIRCUIT CLASS A, STYLE 6 OR CLASS B, STYLE 4
NOTIFICATION LINE CIRCUIT CLASS B, STYLE B

COMPATIBLE ELECTRICAL BOXES
THIS MODULE MUST BE INSTALLED IN A UIO MOTHERBOARD INSIDE A SUITABLE ENCLOSURE.

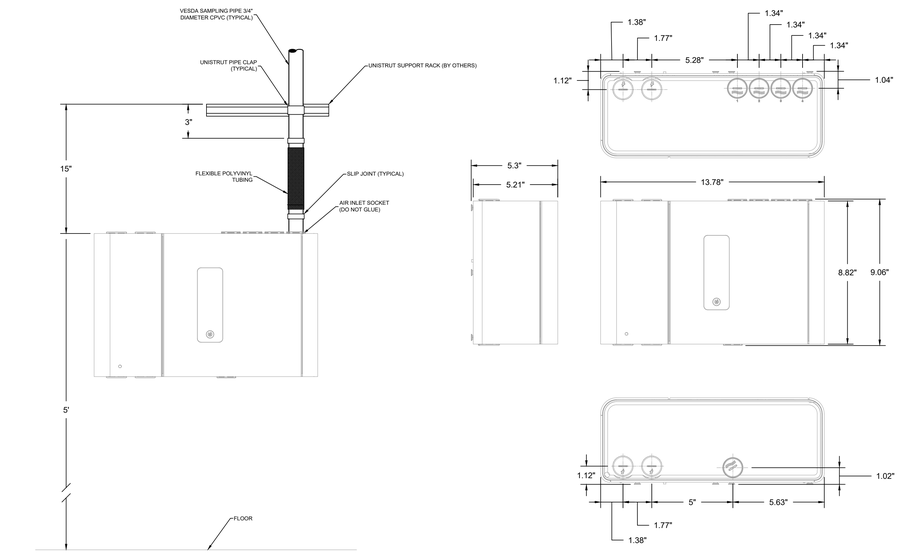
OPERATING ENVIRONMENT
TEMPERATURE 32 TO 120° F
RELATIVE HUMIDITY 0 TO 93% NON-CONDENSING

INSTALLATION NOTES

1. PLUG MODULE INTO SPECIFIED POSITION IN THE MOTHERBOARD.
2. SECURE THE MODULE TO THE MOTHERBOARD WITH THE TWO CAPTIVE SCREWS.
3. WIRE THE MODULE AS SHOWN.

SEE INSTALLATION INSTRUCTIONS FOR ADDITIONAL INFORMATION

DUAL INPUT MODULE - WIRING DIAGRAM
EST SIGA-MCT2

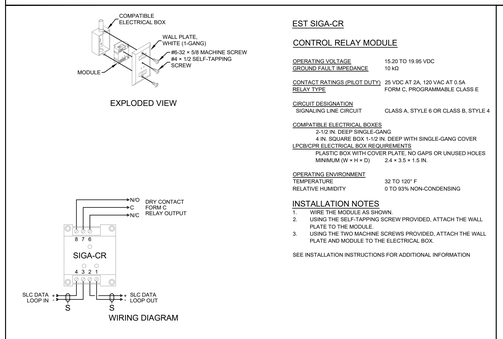


VESDA-E VEP - MOUNTING DETAIL

VESDA SYSTEM

VEP - MOUNTING DETAIL

SEE INSTALLATION INSTRUCTIONS FOR ADDITIONAL INFORMATION



CONTROL RELAY MODULE - WIRING DIAGRAM
EST SIGA-CR

EST SIGA-CR

CONTROL RELAY MODULE

OPERATING VOLTAGE 15.20 TO 19.95 VDC
GROUND FAULT IMPEDANCE 10 kΩ

CONTACT RATINGS (PILOT DUTY) 25 VDC AT 2A, 120 VAC AT 0.5A
RELAY TYPE FORM C, PROGRAMMABLE CLASS E

CIRCUIT DESIGNATION
SIGNALING LINE CIRCUIT CLASS A, STYLE 6 OR CLASS B, STYLE 4

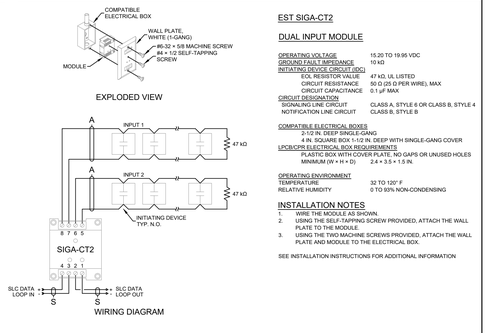
COMPATIBLE ELECTRICAL BOXES
2-1/2 IN. DEEP SINGLE-GANG
4 IN. SQUARE BOX 1-1/2 IN. DEEP WITH SINGLE-GANG COVER
LPCB/CPR ELECTRICAL BOX REQUIREMENTS
PLASTIC BOX WITH COVER PLATE, NO GAPS OR UNUSED HOLES MINIMUM (W × H × D) 2.4 × 3.5 × 1.5 IN.

OPERATING ENVIRONMENT
TEMPERATURE 32 TO 120° F
RELATIVE HUMIDITY 0 TO 93% NON-CONDENSING

INSTALLATION NOTES

1. WIRE THE MODULE AS SHOWN.
2. USING THE SELF-TAPPING SCREW PROVIDED, ATTACH THE WALL PLATE TO THE MODULE.
3. USING THE TWO MACHINE SCREWS PROVIDED, ATTACH THE WALL PLATE AND MODULE TO THE ELECTRICAL BOX.

SEE INSTALLATION INSTRUCTIONS FOR ADDITIONAL INFORMATION



DUAL INPUT MODULE - WIRING DIAGRAM
EST SIGA-CT2

EST SIGA-CT2

DUAL INPUT MODULE

OPERATING VOLTAGE 15.20 TO 19.95 VDC
GROUND FAULT IMPEDANCE 10 kΩ
INITIATING DEVICE CIRCUIT (IDC)
EOL RESISTOR VALUE 47 kΩ, UL LISTED
CIRCUIT RESISTANCE 50 Ω (25 Ω PER WIRE), MAX
CIRCUIT CAPACITANCE 0.1 µF MAX
CIRCUIT DESIGNATION
SIGNALING LINE CIRCUIT CLASS A, STYLE 6 OR CLASS B, STYLE 4
NOTIFICATION LINE CIRCUIT CLASS B, STYLE B

COMPATIBLE ELECTRICAL BOXES
2-1/2 IN. DEEP SINGLE-GANG
4 IN. SQUARE BOX 1-1/2 IN. DEEP WITH SINGLE-GANG COVER
LPCB/CPR ELECTRICAL BOX REQUIREMENTS
PLASTIC BOX WITH COVER PLATE, NO GAPS OR UNUSED HOLES MINIMUM (W × H × D) 2.4 × 3.5 × 1.5 IN.

OPERATING ENVIRONMENT
TEMPERATURE 32 TO 120° F
RELATIVE HUMIDITY 0 TO 93% NON-CONDENSING

INSTALLATION NOTES

1. WIRE THE MODULE AS SHOWN.
2. USING THE SELF-TAPPING SCREW PROVIDED, ATTACH THE WALL PLATE TO THE MODULE.
3. USING THE TWO MACHINE SCREWS PROVIDED, ATTACH THE WALL PLATE AND MODULE TO THE ELECTRICAL BOX.

SEE INSTALLATION INSTRUCTIONS FOR ADDITIONAL INFORMATION

BPS6A NAC 1 - Battery Calculation

POWER SUPPLY DESIGNATOR	NAC	**POWER SUPPLY PREFIX**	1	**STANDBY DURATION REQUIRED (HRS)**	4
PANEL LOCATION	**MECHANICAL ROOM**			**ALARM RING TIME REQUIRED (MIN)**	5
AREA SERVED	**VESDA POWER**			**SPARE CAPACITY (%)**	20%

POWER SUPPLY BASE LOAD/AUXILIARY POWER OUTPUT

PART #	DESCRIPTION	QTY.	SUPV. CURRENT (mA)		ALARM CURRENT (mA)	
			EACH	TOTAL	EACH	TOTAL
BPS6A	REMOTE BOOSTER POWER SUPPLY	1	70	70	270	270
BPS AUX	BPS CIRCUITS SET TO AUX OUTPUT	4	35	140	35	140
SIGA-CC1S	SIGNAL MODULE WITH STROBE SYNC	1	0	0	6	6

NAC/AUX OUTPUTS

NAC/AUX OUTPUTS		DESCRIPTION	SUPV. CURRENT (mA)	ALARM CURRENT (mA)
CKT. #	TYPE		TOTAL	TOTAL
1	AUX. POWER	VESDA POWER (EXISTING)	1440	1620
2	AUX. POWER	VESDA POWER (EXISTING)	1440	1620
3	AUX. POWER	VESDA POWER (EXISTING)	960	1080
4	AUX. POWER	VESDA POWER (NEW)	734	800

SUBTOTAL SUPERVISORY CURRENT (AMPS):	**4.784**
TOTAL SUPERVISORY CURRENT WITH STANDBY (AMPS):	**19.136**
SUBTOTAL ALARM CURRENT (AMPS):	**5.536**
TOTAL ALARM CURRENT WITH ALARM RING TIME (AMPS):	**0.461**
SPARE CAPACITY:	**20%**
TOTAL AMP HOUR REQUIRED (AMPS):	**23.517**
BATTERY SIZE REQUIRED (AH):	**24**
BATTERY CABINET PROVIDED:	**YES**

CIRCUIT N1-4 - AUX. POWER SUMMARY

CIRCUIT TYPE	AUX. POWER
DESCRIPTION	VESDA POWER (NEW)

POWER SUPPLY INFORMATION				CABLE PROPERTIES	
NOMINAL STARTING VOLTAGE (Vdc)	19.7	**LOAD FACTOR (LF)**	0.59	**WIRE GAUGE (AWG)**	14
MINIMUM DEVICE VOLTAGE (Vdc)	16	**VOLTAGE W/LOAD FACTOR (VDC)**	19.228	**Ω PER 1K FEET (OHMS)**	3.07
TOTAL SUPERVISORY CURRENT (AMPS)	0.734	**TOTAL ALARM CURRENT (AMPS)**	0.800		

PART #	DEVICE	QTY	STANDBY CURRENT (mA)		ALARM CURRENT (mA)	
			EACH	TOTAL	EACH	TOTAL
VEP-A00-1P	VESDA-E, ASPIRATOR @ FIXED RPM	2	367	734	400	800

convergint

450 Shattuck Avenue South, Renton, Washington 98057
Phone: 425-272-2250 Fax: 425-251-0949

City of Puyallup
Development & Permitting Services
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REV	JOB# - DESCRIPTION	DATE	BY
-	ISSUED FOR PERMIT	10/21/2025	JU

DRAWN BY:	JACOB U.
PROJECT DESIGNER:	JACOB U
PROJECT MANAGER:	CHARITY P.
JOB NUMBER:	USS1-J00280181
SCALE: AS SHOWN	DATE: 10/17/2025

CENTRIS - SOUTH HILL DATACENTER
FIRE REPAIR & NEW BATTERY RM
1023 39TH AVE SE
PUYALLUP, WA 98374

DEVICE DETAILS & CALCULATIONS

FIRE ALARM SYSTEM

DRAWING: FA-4-1

IF DRAWING IS NOT 30" x 42" IT IS A SCALED COPY