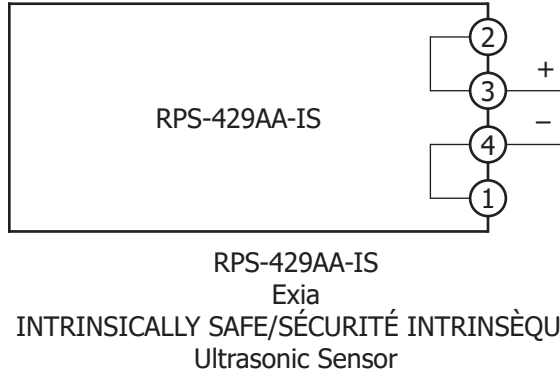
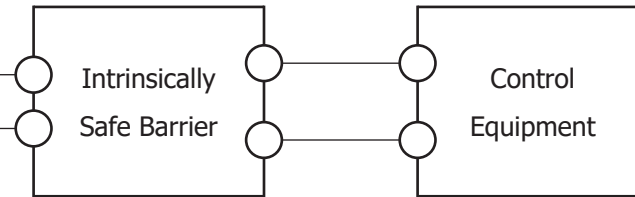


Hazardous Location

UL/cUL: Class I, Groups A, B, C, and D;
 Class II, Groups E, F, and G; Class III
 ATEX/IECEX: Zones 0, 1, and 2, Groups I, IIA, IIB, and IIC;
 Zones 20, 21, and 22, Groups IIIA, IIIB, and IIIC



Non-Hazardous Location

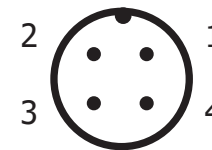


RPS-429AA-IS (4-20mA Analog Current Version)
 Exia INTRINSICALLY SAFE/SÉCURITÉ INTRINSEQUE Apparatus Entity Parameters

RPS-429AA-IS Entity Parameters					
Terminal Numbers	V_{max} or U_i	I_{max} or I_i	P_{max} or P_i	C_i	L_i
3 & 2 (+) 4 & 1 (-)	30 V	120 mA	0.900 W	*	*
* = Negligible					

Table 1

RPS-429AA-IS
 Analog Current Output
 M12 Receptacle Diagram

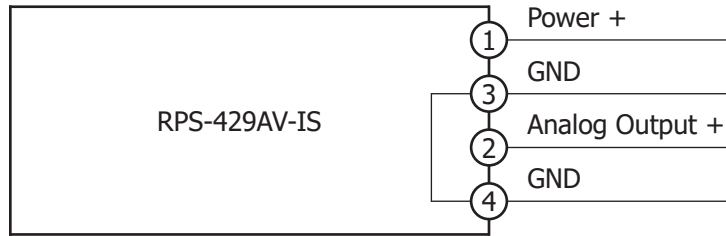


Pin 1 - Loop -
 Pin 2 - Loop +
 Pin 3 - Loop +
 Pin 4 - Loop -

Drawn By/Date JVW / 03-06-2023	Migatron Corp. 935 Dieckman Street Woodstock, IL 60098 USA	
	Title: RPS-429A-IS Control Drawing	
Size: A	Drawing No.: Ex202303060	Rev.: 1
Scale: N/A	Date: May 1, 2024	Page: 1 of 4

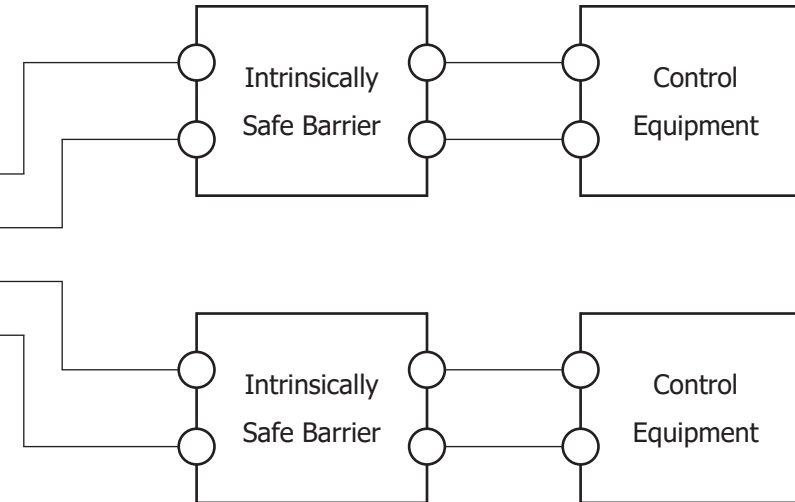
Hazardous Location

UL/cUL: Class I, Groups A, B, C, and D;
 Class II, Groups E, F, and G; Class III
 ATEX/IECEX: Zones 0, 1, and 2, Groups I, IIA, IIB, and IIC;
 Zones 20, 21, and 22, Groups IIIA, IIIB, and IIIC



RPS-429AV-IS
 Exia
 INTRINSICALLY SAFE/SÉCURITÉ INTRINSÈQUE
 Ultrasonic Sensor

Non-Hazardous Location

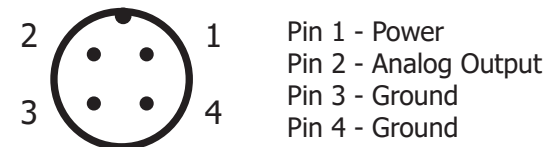


RPS-429AV-IS (Analog Voltage Version)
 Exia INTRINSICALLY SAFE/SÉCURITÉ INTRINSÈQUE Apparatus Entity Parameters

RPS-429AV-IS Entity Parameters					
Terminal Numbers	V_{max} or U_i	I_{max} or I_i	P_{max} or P_i	C_i	L_i
1 & 3 (Power)	30 V	100 mA	0.750 W	*	*
2 & 4 (Analog Output)	16 V	16 mA	0.064 W	*	*
* = Negligible					
Terminal Numbers	V_{OC} or U_o	I_{SC} or I_o	P_o	C_a or C_o	L_a or L_o
2 & 4 (Analog Output)	7.14 V	5.8 mA	0.011 W	13.5 μ F	1,056 mH

Table 2

RPS-429AV-IS
 Analog Voltage Output
 M12 Receptacle Diagram



Drawn By/Date JVW / 03-06-2023	Migatron Corp. 935 Dieckman Street Woodstock, IL 60098 USA	
	Title: RPS-429A-IS Control Drawing	
Size: A	Drawing No.: Ex202303060	Rev.: 1
Scale: N/A	Date: May 1, 2024	Page: 2 of 4

NOTE 1: RPS-429Ay-abcd-ISx-efgh Model Number Information

- y = Output Type
 - A: Analog Current Output
 - V: Analog Voltage Output
- abc = Maximum range of sensor given in inches. See datasheet for available ranges. Contact Migatron Corp. for optional ranges.
- d = Enclosure/Housing
 - P: Polyvinyl Chloride (PVC) enclosure, see Note 15 and certificate(s) for Specific Conditions of Use.
- x = Markings
 - 2: International & North America Markings
 - 3: North America Markings
- efgh = May include additional character(s) for alternate configurations, as allowed by the schedule drawings.

NOTE 2: WARNING: TO PREVENT IGNITION OF EXPLOSIVE ATMOSPHERES, DISCONNECT POWER BEFORE SERVICING.

AVERTISSEMENT: POUR ÉVITER L'INFLAMMATION D'ATMOSPHÈRES EXPLOSIVES, COUPER LE COURANT AVANT L'ENTRETIEN.

NOTE 3: WARNING: SUBSTITUTION OF COMPONENTS MAY IMPAIR INTRINSIC SAFETY.

AVERTISSEMENT: LA SUBSTITUTION DE COMPOSANTS PEUT COMPROMETTRE LA SÉCURITÉ INTRINSÈQUE.

NOTE 4: To maintain the IP66/IP67 rating of the sensor, the cable assembly used to connect to the sensor must have the appropriate IP rating(s) for the installation location. Also the coupling nut on the cable assembly must be tightened according to the cable manufacturer's requirements.

NOTE 5: The RPS-429A-IS must be installed in accordance with this Control Drawing, Article 504 of the National Electrical Code (ANSI/NFPA 70) for installation in the United States, Section 18 of the Canadian Electrical Code for installations in Canada, EN/IEC 60079-14, and/or other local codes, as applicable. Also refer to the RPS-429A-IS User Manual for additional instructions.

NOTE 6: Intrinsically safe circuits must be wired and separated in accordance with Article 504.20 of the National Electrical Code (ANSI/NFPA 70), EN/IEC 60079-14, and/or other local codes, as applicable.

NOTE 7: Associated apparatus/equipment output current must be limited by a resistor such that the output voltage-current plot is a straight line drawn between open-circuit voltage and short-circuit current.

NOTE 8: Associated apparatus/equipment may be in a Division 2 or Zone 2 location if so approved.

I.S. Apparatus	Associated Apparatus
V_{max} or $U_i \geq V_{oc}$ or V_t or U_o	
I_{max} or $I_i \geq I_{sc}$ or I_t or I_o	
P_{max} or $P_i \geq P_o$	
$C_i + C_{cable} \leq C_a$ or C_o	
$L_i + L_{cable} \leq L_a$ or L_o	

Table 3

Drawn By/Date JVW / 03-06-2023	Migatron Corp. 935 Dieckman Street Woodstock, IL 60098 USA	
	Title: RPS-429A-IS Control Drawing	
Size: A	Drawing No.: Ex202303060	Rev.: 1
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NOTE 9: Selected associated apparatus/equipment must be third party listed as providing intrinsically safe circuits for the application, and have V_{oc} or V_t not exceeding V_{max} (or U_o not exceeding U_i), I_{sc} or I_t not exceeding I_{max} (or I_o not exceeding I_i), and the P_o of the associated apparatus/equipment must be less than or equal to the P_{max} or P_i of the intrinsically safe apparatus, as shown in Table 3. If P_o of the associated apparatus/equipment is not known, it may be calculated using the formula $P_o = [(V_{oc})(I_{sc})]/4 = [(U_o)(I_o)]/4$.

NOTE 10 : Capacitance and inductance of the field wiring from the intrinsically safe apparatus to the associated apparatus/equipment shall be calculated and must be included in the system calculations as shown in Table 3. Cable capacitance, C_{cable} , plus intrinsically safe apparatus capacitance, C_i , must be less than the marked capacitance, C_a (or C_o), shown on any associated apparatus/equipment used. The same applies for inductance (L_{cable} , L_i and L_a or L_o , respectively). Where the cable capacitance and inductance per foot are not known, the following values shall be used: $C_{cable} = 60$ pF/ft., $L_{cable} = 0.2$ μ H/ft.

NOTE 11: Associated apparatus/equipment must be installed in accordance with its manufacturer's Control Drawing and Article 504 of the National Electrical Code (ANSI/NFPA 70) for installation in the United States, Section 18 of the Canadian Electrical Code for installations in Canada, or other local codes, as applicable.

NOTE 12: When required by the manufacturer's Control Drawing, the associated apparatus/equipment must be connected to a suitable ground electrode per the National Electrical Code (ANSI/NFPA 70), the Canadian Electrical Code, or other local installation codes, as applicable. The resistance of the ground path must be less than 1 ohm.

NOTE 13: Associated apparatus/equipment must not be used in combination unless permitted by the associated apparatus/equipment certification.

NOTE 14: Control equipment must not use or generate more than 250 V rms or dc with respect to earth.

NOTE 15: WARNING: POTENTIAL ELECTROSTATIC CHARGING HAZARD, WIPE WITH A DAMP CLOTH.

AVERTISSEMENT: DANGER POTENTIEL DE CHARGES ÉLECTROSTATIQUES, ESSUYER AVEC UN CHIFFON HUMIDE.

Drawn By/Date JVW / 03-06-2023	Migatron Corp. 935 Dieckman Street Woodstock, IL 60098 USA	
	Title: RPS-429A-IS Control Drawing	
Size: A	Drawing No.: Ex202303060	Rev.: 1
Scale: N/A	Date: May 1, 2024	Page: 4 of 4