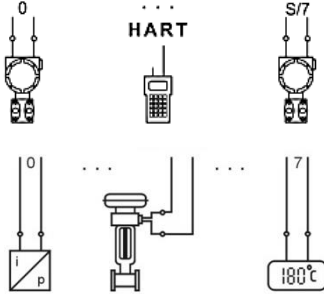


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Nonhazardous
Class I, II, III, Division 2, Group A-G
or Class I, Zone 2, Group IIC/IIB
Hazardous (Classified) Locations



4 ... 20 mA HART



Approved i/p converters, positioners, indicators

Wiring legend

Connection allocation – Analog Universal Module HART Type 9468

Channel	X1 / 2-Wire Input/Output Terminals	X1 / 3-Wire Input Terminals	X1 / 4-Wire Input Terminals
0	1(+), 2(-)	supply 1(+) signal 2(+) common 4(-)	2(+), 4(-)
1	3(+), 4(-)		
2	5(+), 6(-)	supply 5(+) signal 6(+) common 8(-)	6(+), 8(-)
3	7(+), 8(-)		
4	9(+), 10(-)	supply 9(+) signal 10(+) common 12(-)	10(+), 12(-)
5	11(+), 12(-)		
6	13(+), 14(-)	supply 13(+) signal 14(+) common 16(-)	14(+), 16(-)
7	15(+), 16(-)		

The Type 9468 Analog Universal Module HART is designed to receive a digital signal from the IS1 CPU & Power Module and output a corresponding analog signal to positioners, indicators, etc.. It is also designed to input analog signals from a hazardous location transmitter and output a representative digital signal for processing by the IS1 CPU & Power Module. The module is nonincendive for installation in a Class I, II, III, Division 2, Group A-G or Class I, Zone 2, Group IIC/IIB hazardous location according to NEC Article 504/505 or Canadian Electrical Code, CSA C22; Providing intrinsically safe connections for the hazardous locations listed below.

Entity parameters for wiring configuration to the left are as follows:

2-Wire input/output circuits $V_{OC} = 24.4 V$
 $I_{SC} = 80 mA$
 $P_o = 488 mW$

CL I, DIV 1, A,B / Zone 0, GP IIC		CL I, DIV 1, C-G / Zone 0, GP IIB/IIC	
La [mH]	Ca [nF]	La [mH]	Ca [nF]
3.8	≤ 53	23.0	≤ 370
2.0	59	10.0	430
1.0	71	2.0	430
0.5	88	1.0	470
≤ 0.2	119	0.5	550
		0.2	700
		0.1	860
		≤ 0.05	890

3-Wire input/output circuits $V_{OC} = 24.4 V$
 $I_{SC} = 81.8 mA$
 $P_o = 499 mW$

CL I, DIV 1, A,B / Zone 0, GP IIC		CL I, DIV 1, C-G / Zone 0, GP IIB/IIC	
La [mH]	Ca [nF]	La [mH]	Ca [nF]
3.6	≤ 53	21.0	≤ 380
2.0	58	10.0	420
1.0	70	2.0	420
0.5	87	1.0	470
≤ 0.2	119	0.5	550
		0.2	700
		0.1	860
		≤ 0.05	890

4-Wire input/output circuits $V_i = 28.0 V$
 $C_i = \text{negligibility}$
 $L_i = \text{negligibility}$
 $I_{SC} = \text{negligibility}$
 $P_o = \text{negligibility}$
 $i_i = 150 mA \text{ at } T_{amb} \leq 55^\circ C$
 $i_i = 140 mA \text{ at } T_{amb} \leq 60^\circ C$
 $i_i = 130 mA \text{ at } T_{amb} \leq 65^\circ C$
 $i_i = 115 mA \text{ at } T_{amb} \leq 70^\circ C$
 $i_i = 105 mA \text{ at } T_{amb} \leq 75^\circ C$

Notes:

- Intrinsically safe apparatus shall be an Approved System or Entity device connected in accordance with the manufacturer's installation instructions.
- For Entity concept use the appropriate parameters from above to ensure the following:
 $V_{OC} \text{ or } V_i \leq V_{max}$ $C_a \geq C_i + C_{leads}$
 $I_{SC} \text{ or } I_i \leq I_{max}$ $L_a \geq L_i + L_{leads}$
- The values of La and Ca in the tables above are the maximum values for combined inductance and capacitance (including cable inductance and capacitance). The values for La and Ca marked in grey are the values determined according to curves and tables of IEC 60079-11, Annex A. These grey marked values may be used for assessment as per IEC 60079-14, intrinsically safe circuits with only one source of power.
- Suitable separation must be maintained between wiring of each I.S. input channel.
- For Installation in Division 2 or Zone 2 see Certification drawing for IS1 resp. IS1+ Remote I/O System No. 9400 6 031 004 1 or 9400 6 031 006 1 as part of the documentation of the CPU & Power Modules.

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2016	Date	Name	<p style="text-align: center;">Certification drawing</p> <p style="text-align: center;">Analog Universal Module HART</p> <p style="text-align: center;">Type 9468/33-08-1*</p>	Scale
Drawn by	25.10.	Bagusch		none
Checked		Kaiser		Sheet 1 of 1
01	09.03.2018	Bagusch	9468 6 031 002 1	Agency FM
Version	Date	Name		Rep. f.

