

ZD 046F/00/en/12.99/EHF
CSA / B 21.10.99



Wiring diagram 960326-2133 B

Micropilot FMR 13x

Endress + Hauser



NOTE:

1. Keep tight when circuit is alive. After disconnection power wait when temp. Cl. T6 30 min, T3B 2 min before removing cover.
2. Max. ambient temperature = 65 °C
3. Temperature class with LCD display T3B at Tamb. = 40 °C T3A at Tamb. = 65 °C
4. Control room equipment may not use or generate over 250 Vrms.
5. The voltage (Vmax.) and current (Imax.) of the intrinsically safe apparatus (FMR13x and VU260Z) must be equal to or greater than the voltage (Voc) and current (Isc) levels of the associated apparatus (safety barrier). In addition, the sum of the unprotected capacitance (Ci) and inductance (Li) of the intrinsically safe apparatus, including interconnecting wiring, must be equal to or less than the capacitance (Ca) and inductance (La) which can be safely connected to the associated apparatus. When the model VU260Z handheld terminal is used the allowed inductance (La) of the barrier must be reduced to a value chosen from Table A. If the barrier Isc falls between two values in Table A, the lower value of La must be chosen. The "entity" parameters of the model VU260Z are:
Input: Vmax. = 30 V, Imax. = 500 mA, Ci = 0, Li = 0
Output: Voc = 7,3 V, Isc = 6,1 mA, Ca = 10 µF, La = 700 mH

Barrier Isc or Im (mA)	Allowed inductance, La (mH)				
	GP A, B	GP C, E	GP D, F, G	GP D, F, G	GP D, F, G
300	0,19	1,6	2,8	2,8	2,8
280	0,20	1,8	3,2	3,2	3,2
260	0,23	2,2	3,9	3,9	3,9
240	0,27	2,7	4,6	4,6	4,6
220	0,3	3,0	5,4	5,4	5,4
200	0,4	4,0	6,5	6,5	6,5
180	0,5	5,0	7,9	7,9	7,9
160	0,8	5,5	9,9	9,9	9,9
150	1,0	6,2	11,2	11,2	11,2
140	1,3	7,0	12,7	12,7	12,7
130	1,6	8,0	14,6	14,6	14,6
120	2,0	9,0	16,9	16,9	16,9
110	2,5	10,0	20,0	20,0	20,0
100	3,0	12,0	23,0	23,0	23,0
90	4,0	15,0	28,0	28,0	28,0
80	5,0	18,0	35,0	35,0	35,0
70	6,0	22,0	44,0	44,0	44,0
60	7,5	28,0	58,0	58,0	58,0
50	10,0	40,0	79,0	79,0	79,0
40	15,0	56,0	113,0	113,0	113,0
30	23,0	87,0	176,0	176,0	176,0

6. Install per Canadian Electrical Code .
7. Warning: Substitution of components may impair intrinsic safety. Avertissement: La substitution de composants peut compromettre la sécurité intrinsèque.
8. A dust tight seal must be used at the conduit entries when the transmitter is used in a Class II location. In Class I, seal all conduit entries within 18 inches.
9. For more informations see installation and operating instruction.
10. Caution: Use supply wires suitable for 5 °C above surrounding ambient.
11. Use the handheld unit e.g. E+H VU260Z or use any other handheld unit which is CSA certified, with entity parameters.

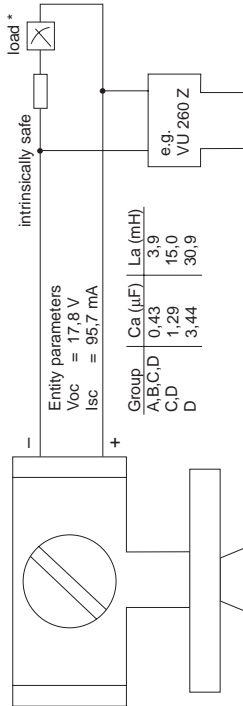
HAZARDOUS LOCATION

CLASS I, Div. 1, Groups A, B, C, D
CLASS II, Div. 1, Groups E, F, G
CLASS III

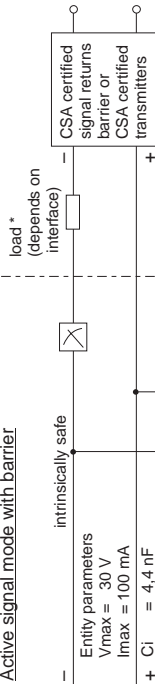
SAFE AREA

Signal output (U.S.)
4...20 mA

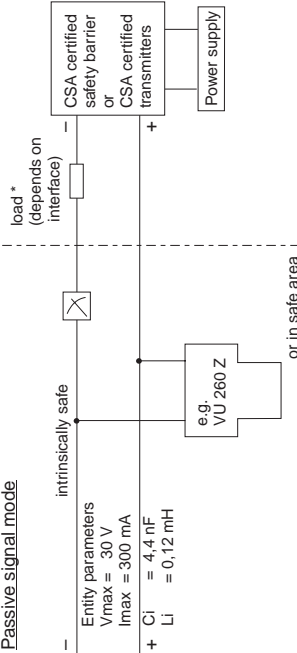
Active signal mode without barrier



Active signal mode with barrier



Passive signal mode



Max. permissible medium temperature	Max. permissible ambient temperature	Temperature class without display / operating module	Temperature class with built-in display / operating module
40 °C	40 °C	T6	T3B
65 °C	65 °C	T6	T3A
85 °C	65 °C	T6	T3A
100 °C	55 °C	T5	T3A
135 °C	55 °C	T4	T3A
150 °C	55 °C	T3C	T3A
Micropilot FMR13x...D or E or H (with extended temperature range of medium)			
85 °C	65 °C	T6	T3A
100 °C	55 °C	T5	T3A
135 °C	55 °C	T4	T3A
200 °C	55 °C	T3	T3
250 °C	55 °C	T2B	T2A

* for more information see Instruction Manual

Agency controlled drawing.
No changes without prior
Agency approval.