



AlarmLine II EN Analogue

Lineares Wärmemelder-System (LHD)

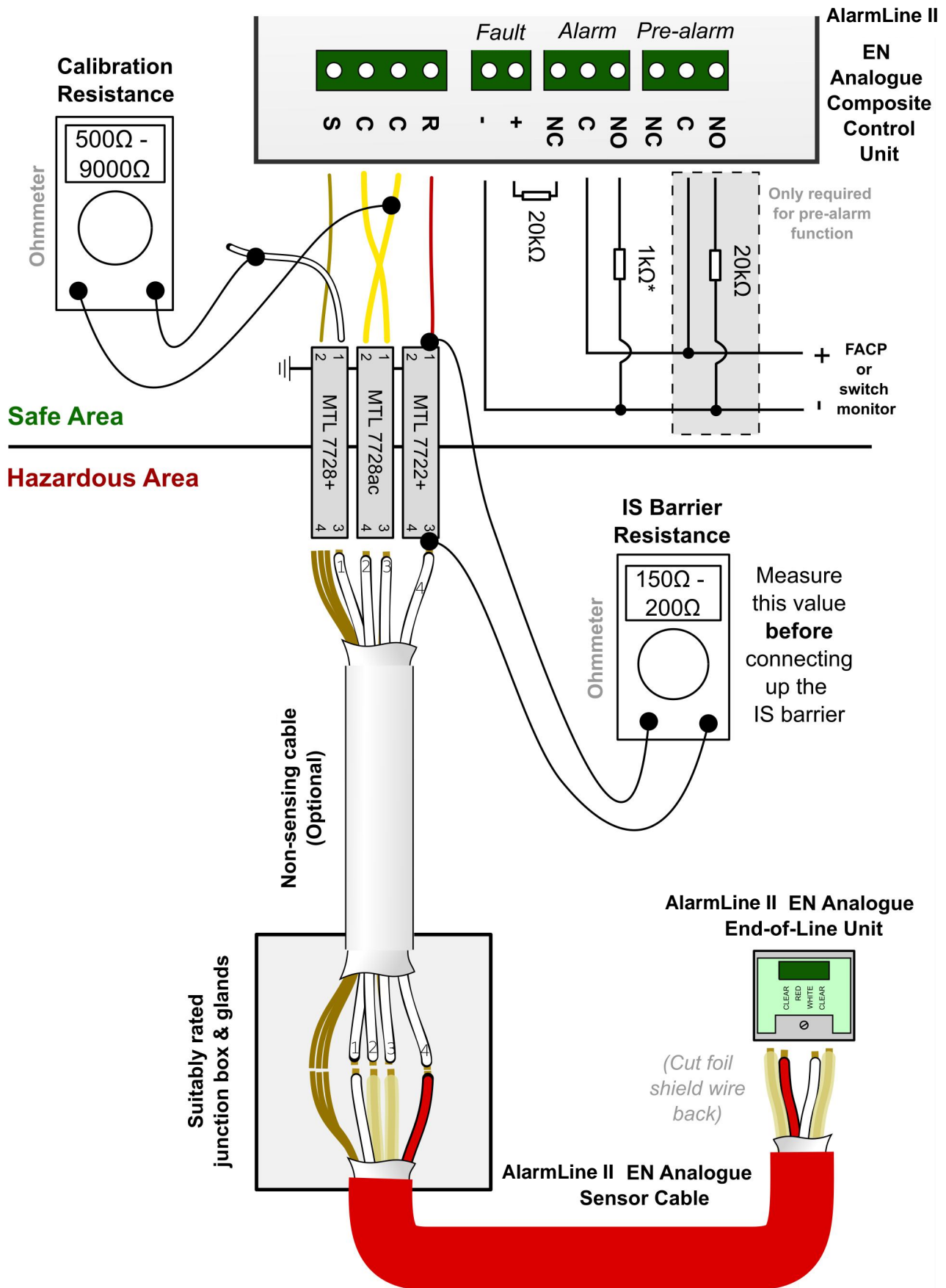
Installationsanweisungen für EX-gefährdete Bereiche



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Abbildung 1. Typische Installation



Installation Instructions

AlarmLine II EN Analogue Linear Heat Detection may be installed in hazardous areas using intrinsically safe barriers. The control unit must be installed in the safe area and the intrinsically safe (I.S.) barriers separate the safe area and the hazardous area as shown in Abbildung 1.

AlarmLine II EN Analogue Sensor cable and the end-von-line unit are declared as a "simple products" in accordance with the ATEX Directive 94/9/EC section 5.2.1, as neither the cable nor end-von-line module have their own ignition source as detailed in ATEX Directive 94/9/EC section 3.7.2

The correct intrinsically safe barriers must be chosen to meet the requirements detailed in the approval certificates for the specific barrier. This includes, but is not limited, to the Gas Group, Zones and Load Parameters.

For the AlarmLine II EN Analogue Sensor cable the important parameters relating to hazardous areas are shown in Tabelle 1.

The system can be installed in a manner similar to that shown in Abbildung 1. AlarmLine II EN Analogue Non-Sensing Cable is optional but may be used if the start von the sensor cable zone is some distance from the control unit and intrinsically safe barriers.

Do not use any other type von non-sensing /leader cable as this can affect the correct operation von the analogue linear heat detector.

Tabelle 1. Parameter für analoge Kabel

	Capacitance	Inductance	L/R ratio	Resistance
White Core	<65pF/m	<12.5µH/m	<0.7µH/Ω	~17Ω/m
Red Core	<70pF/m	<6µH/m	<2.5µH/Ω	~3.3Ω/m
Clear Cores	<105pF/m	<3µH/m	<14µH/Ω	~0.11Ω/m

Analogue Leader (non-sensing) Cable

	Capacitance	Inductance	L/R ratio	Resistance
All Cores	<150pF/m	<2µH/m	<30µH/Ω	~0.035Ω/m

Tabelle 2. I.S. Barrier Maximum Permissible Parameters

MTL728+ / P&F Z 928

Combined Channels	Group IIC	Group IIB	Group IIA
Capacitance	0.083µF / 0.083µF	0.65µF	2.15µF
Inductance	4.2mH / 3.05mH	12.6mH	33.6mH
L/R ratio	54µH/Ω / 56µH/Ω	218µH/Ω	435µH/Ω

MTL7728ac / P&F Z 928

Combined Channels	Group IIC	Group IIB	Group IIA
Capacitance	0.083µF / 0.083µF	0.65µF	2.15µF
Inductance	4.2mH / 3.05mH	12.6mH	33.6mH
L/R ratio	54µH/Ω / 56µH/Ω	218µH/Ω	435µH/Ω

MTL7722+ / P&F Z 722

Combined Channels	Group IIC	Group IIB	Group IIA
Capacitance	0.165µF / 0.17µF	1.14µF	4.2µF
Inductance	1.65mH / 1.45mH	7.22mH	14mH
L/R ratio	44µH/Ω / 45µH/Ω	176µH/Ω	353µH/Ω

(MTL according to Certificate No. BAS01ATEX7217 Issue 8)

Tabelle 3. Maximal zulässige

Zonenlängen

In the case of Gas Group I applications, the limiting factor on zone lengths is due to the red core inductance. In the case von Gas Group IIB and IIA applications the limiting factor on zone lengths is the maximum allowed sensor cable per controller.

Gas Group	only Analogue Sensor Cable	with 100m non-sensing cable	with 250m non-sensing cable
IIC	275m (241m P&F)	241m (208 P&F)	191m (158m)
IIB	500m	500m	500m
IIA	500m	500m	500m

Inbetriebnahmeanweisungen

When using the AlarmLine II EN Analogue LHD system in hazardous areas and with I.S. barriers it is important to commission the controller correctly so as to remove the von fset created by the I.S. barrier resistance.

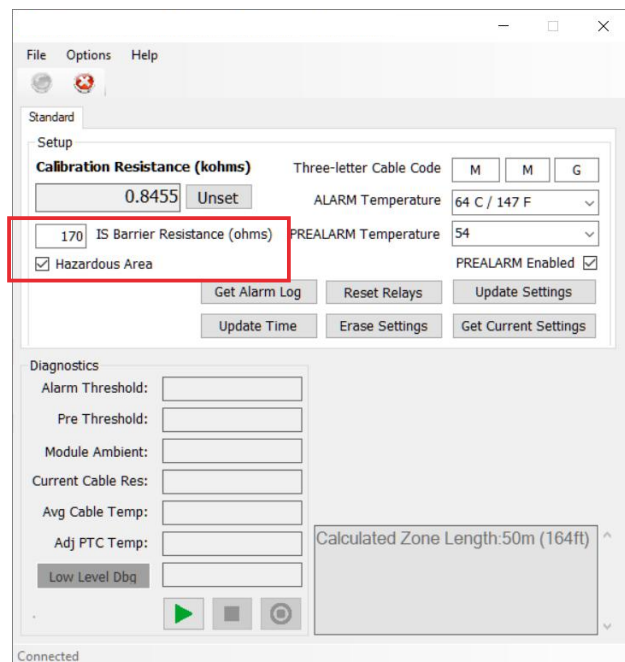
Refer to the AlarmLine II EN Analogue Linear Heat Detection System Installation Instructions document to commission the controller, however, in the laptop/PC svntware before clicking "Update Settings", the "Hazardous Area" checkbox should be ticked. The resistance value von the I.S. barrier in line with the Red core von the sensor cable (see Abbildung 1), should be entered in the box labelled "IS Barrier Resistance". Once this has been done , the "Update Settings" button can be clicked.

Likewise, if the AlarmLine II EN Analogue is being programmed using the built-in display, after entering the calibration resistance, select "Yes" for the "Hazardous Area" option. Then enter the IS barrier resistance and confirm this is correct. The remaining settings can be conAbbildungung as per the

AlarmLine EN Analogue Linear Heat Detection System Installation Instructions.

See the images on the right for examples using the laptop/ pc svntware and when using the built-in LCD screen.

Note: Once the hazardous area I.S barrier resistance has been measured and entered into the control unit, it should also be recorded for future reference.



HAZARDOUS AREA:
YES

ENTER BARRIER R:
085 OHM

CORRECT? NO?
085 OHM