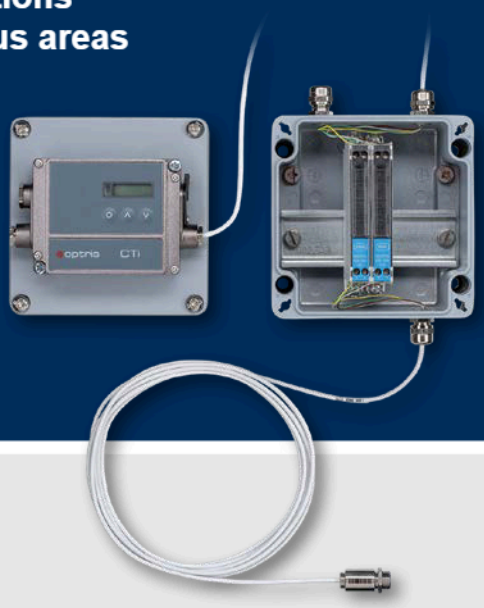
optris CTi LTex
TECHNICAL DATA

optris infrared measurements

optris CTi LTex for applications in hazardous areas



Features:

- Two-piece measuring system with active electronic for evaluation and passive IR receiver (sensing head)
- CTi LTex sensing head can be installed as passive element in hazardous areas
- Energy limitation with appropriate zener barriers (STAHL) with approval for zone 1 (PTB 01 ATEX 2053/ E II (1/2) GD [EEx ia/ib] IIC/IIB)

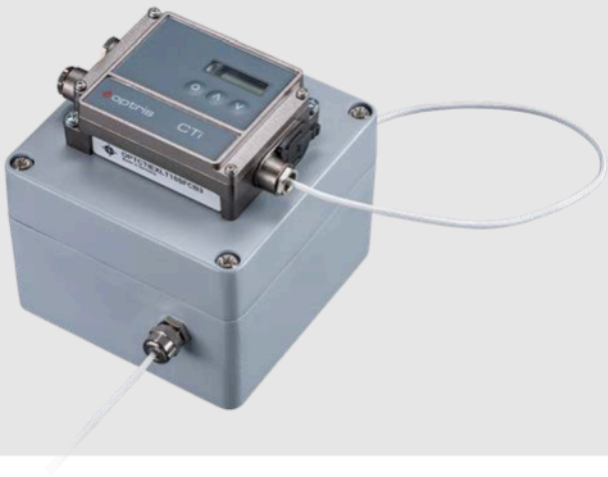
Technical data (zener barriers) [1]	
Approvals: Type 9002/22-032-300-111	Europe (CENELEC): for zone 1: PTB 01 ATEX 2053X for zone 2: PTB 01 ATEX 2054X IECEx PTB 08.0057X
	USA: UL E81680V1S3
	Canada: CSA 1284580 (LR 43394)
Classes, Divisions and Groups	Europe (CENELEC): for zone 1: E II (1/2) GD [EEx ia/ib] IIC/IIB for zone 2: E II 3 GD EEx nA II T4
	USA: I.S. circuits for: class I, II, III, division 1, groups A, B, C, D, E, F, G I.S. circuits for: class I, zone 0, group IIC class I, division 2, groups A, B, C, D class I, zone 2, group IIC
	Canada: I.S. circuits for: class I, groups A, B, C, D; class II, groups E, F, G class III class I, division 2, groups A, B, C, D class I, zone 2, groups IIC
Installation	in zone 2, division 2 and in safe area
Environmental rating	IP 67
Ambient temperature	–20 °C ... 60 °C

Concept / Scope of delivery	
Concept	Classification of the optris CTi LTex sensing heads according to EN 60079-0/ EN 60079-11 (category of simple electrical devices) [2]
	Intrinsically safe by limitation of the energy with two double zener barriers, type 9002/22-032-300-111 (R. STAHL AG)
Scope of delivery	CTi LTex – Sensor (optics 2:1, 15:1, 22:1) with cable length 3 m, 8 m or 15 m (selectable)
	Aluminum housing with mounting appliance for two zener barriers and CTi LTex electronics
	2 zener barriers, type 9002/22-032-300-111 (R. STAHL AG) [3]

[1] Declaration of company R. Stahl AG

[2] Verification by the operator

[3] NOTE: The functionality and correct reading of the CTi LTex sensor can only be guaranteed if the recommended barriers are used



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Manufacturer's declaration for the CTi LTex measurement system

To verify that the optris CTi LTex sensing head is a simple electrical device according to EN 60079-11 item 5.7 we hereby confirm the following technical data:

- **Inductance (available for the sensor cable only):**
  Inductance of the loops
  min. 0.55 mH/ km max. 0.56 mH/ km

- In relation to a cable length of 15 m:
  Inductance of the loops
  min. 0.825 *10^{-3} mH max. 0.84 *10^{-3} mH

- **Capacitance:**
  Capacitance of the sensor cable:

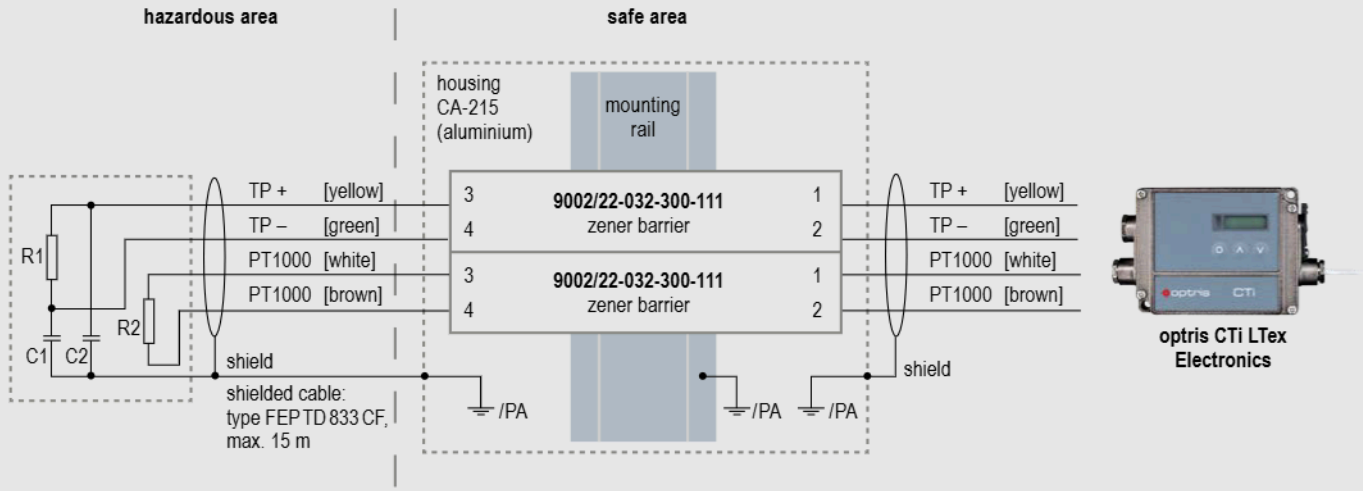
Capacitance lead/lead	min. 16.5 nF/ km	max. 17.9 nF/ km
Capacitance lead/rest	min. 101.0 nF/ km	max. 103.4 nF/ km

In relation to a cable length of 15 m:

Capacitance lead/lead	min. 0.2475 nF	max. 0.2685 nF
Capacitance lead/rest	min. 1.515 nF	max. 1.551 nF

Capacitance in the sensing head:
C1 = Ceramic SMD Capacitor 6.8 nF +/– 20 %
C2 = Ceramic SMD Capacitor 6.8 nF +/– 20 %

Connections



Dimensions in mm

