### **TCH Series Safety Flashlights**

### Increased Safety. Halogen, Incandescent

Zone 1 and 2 - 21 and 22 Gas (G) and Dust (D)

#### **Applications**

- To provide maintenance staff with task specific portable lighting in Zone 1 hazardous areas.
- Ideal for persons requiring task specific portable lighting in refineries, oil and gas process and chemical plants, FPSO,

#### **Features**

- Type TCH1:
  - Luminescent switch facilitates locating flashlight in dark.
  - Can be used to transmit a Morse code.
  - Halogen version provides twice the lumen output of incandescent lamps.
  - Hook for hands free operation.
  - Uses R20 or LR20 batteries (not included).
  - Supplied with 1 lamp.
- Type TCH2:
  - Dual optics (one at the end and one on the side) permitting:
  - Focused beam for safe movement.
  - Wide angle side beam for task specific focused lighting.
  - Ergonomic design permits easy manipulation: User can select one of the two beams with one hand.
  - Two beams can be switched on separately and not simultaneously.
  - Should one lamp fail, the second lamp will still provide
  - illumination. Flashlight is stable when placed upright on a horizontal surface.
  - Pocket clip allows for hands free work.
  - Luminescent ring allows easy locating of flashlight in dark.
  - Suspension hook for hands free use.
  - Uses 2 R20 or LR20 batteries (not included).
  - Supplied with one halogen lamp for main beam and one incandescent lamp for side beam.
  - Supplied with one special opening tool.

#### **Standard Materials**

- Type TCH1:
  - Housing: shockproof and antistatic polyamide
    Internal reflector: polished

  - Lens: polycarbonate
  - Hardware: stainless steel
- Switch: luminescent
- Type TCH2:
  - Housing: black polycarbonate
  - Internal reflector: polished
  - Lens: polycarbonate
  - Hardware: stainless steel
  - Ring: luminescent

#### **Certifications and Compliances**

#### **♦ATEX Certification**

- Certification Type: TCH1
  - Gas: Zones 1-2
  - Conforming to ATEX 94/9/CE: II 2 G
  - Type of Protection: Ex eib IIC
  - Temperature Class: T4
  - Dust: Zone 21-22
    - Conforming to ATEX 94/9/CE: II 2 D
    - Type of Protection: Ex tD A21
    - Surface Temperature: +95 °C



TCH1



TCH2

- Ambient Temperature: -20 °C ≤ To ≤ +40 °C
- CE Declaration of Conformity: 50259
- ATEX Certificate: LCIE 03 ATEX 6064
- Index of Protection according EN/IEC 60529: IP66
- Certification Type: TCH2
  - Gas: Zones 1–2
    - Conforming to ATEX 94/9/CE: II 2 G
    - Type of Protection: Ex eib IIC
    - Temperature Class:
      - Incandescent PR6:T4 (+55°C)
      - Krypton PR102: T4 (+55°C)
      - Halogen HPR52: T4 (+40°C) T3 (+55°C)
    - Halogen HPR01: T4 (+55°C)
  - Dust: Zone 21-22
    - Conforming to ATEX 94/9/CE: II2 D
  - Type of Protection: Ex tD A21
  - Surface Temperature: +130 °C
  - Ambient Temperature: -20 °C ≤ To ≤ +55 °C
  - CE Declaration of Conformity: 50238
  - ATEX Certificate: LCIE 02 ATEX 6229
  - Index of Protection according EN/IEC 60529: IP66/68 (25m)

#### ♦ Others Certification

- Certification Type: TCH1 / TCH2
  - INMETRO Certificate: BVC11.0419 (TCH1) and BVC11.0420 (TCH2) <sup>①</sup>

① Inmetro certification available on special request only. Contact your local sales for more information



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Ordering Information:

Number of lamps (included)	Type of Lamps (not included)	Number of Battery Cells	Weight kgs	Volume dm³	Catalog Number
1	Incandescent — 2.5 V – 0.3 A	2	0.4	3.4	TCH12C
1	Incandescent — 3.7 V - 0.3 A	3	0.4	3.4	TCH13C
1	Halogen — 2.8 V – 0.5 A	2	0.4	3.4	TCH12H
2	Incandescent — 2.5 V – 0.3 A	2	0.4	1.9	TCH22M
	Halogen — 2.8 V – 0.5 A			1.5	TOTIZZIVI

#### Spare Lamps for Replacement (Lamp Holder P13, 5S)

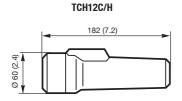
Lamp Type	Rating	Catalog Number
Incandescent (PR6)	2.5 V – 0.3 A	TCHL25C
Incandescent (PR7)	3.7 V – 0.3 A	TCHL37C
Halogen (HPR01)	2.8 V – 0.5 A	TCHL28H

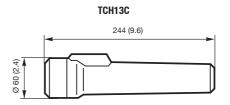
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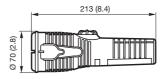
Zone 1 and 2 - 21 and 22 Gas (G) and Dust (D)

#### **Dimensions in Millimeters (Inches)**





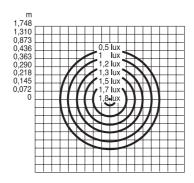
#### TCH22M



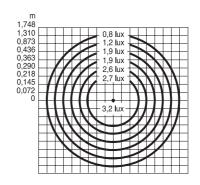




#### **Photometric Data**



Catalog Number TCH12C (at 25 meters) Incandescent



Catalog Number TCH13C (at 25 meters) Incandescent