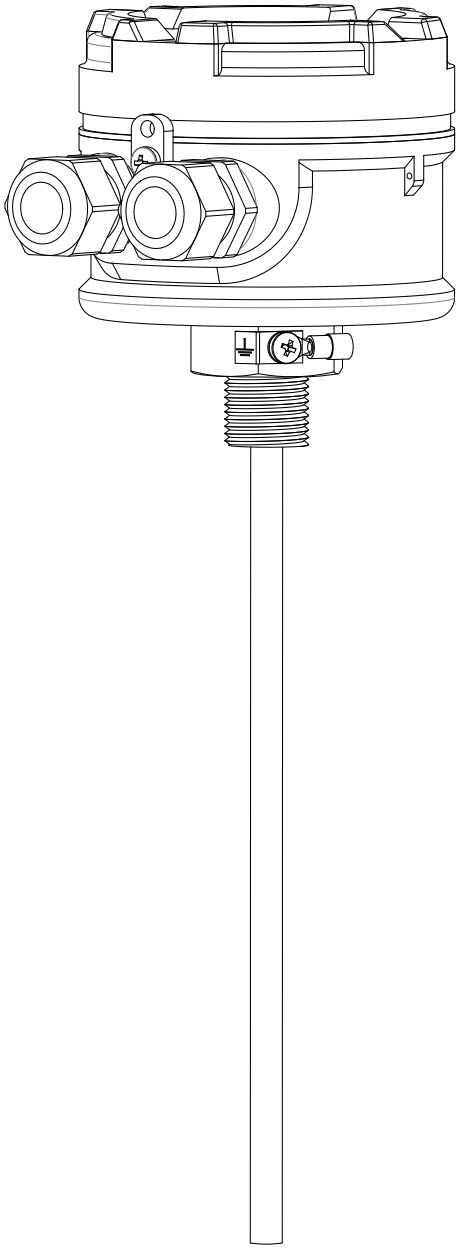
TM

multipoint probe with protective sheath in 304SS



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sgm lektra

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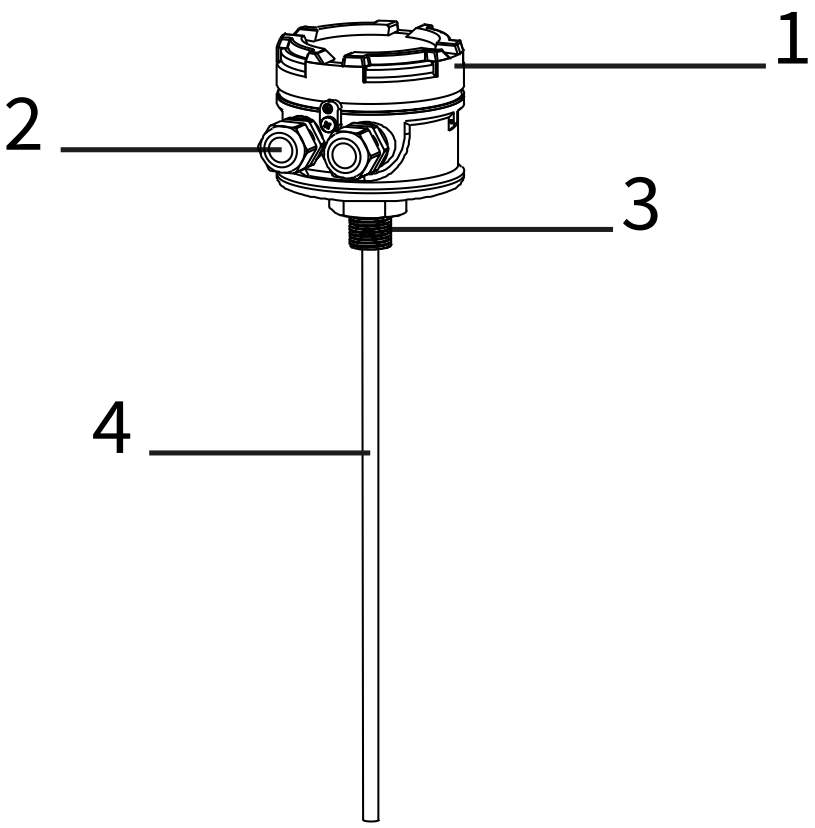
1-WARRANTY

Products supplied by SGM LEKTRA are guaranteed for a period of 12 (twelve) months from delivery date according to the conditions specified in our sale conditions document.
SGM LEKTRA can choose to repair or replace the Product.
If the Product is repaired it will maintain the original term of guarantee, whereas if the Product is replaced it will have 12 (twelve) months of guarantee.
The warranty will be null if the Client modifies, repair or uses the Products for other purposes than the normal conditions foreseen by instructions or Contract.
In no circumstances shall SGM LEKTRA be liable for direct, indirect or consequential or other loss or damage whether caused by negligence on the part of the company or its employees or otherwise howsoever arising out of defective goods

ATTENTION!

Ground connection is essential for protection against electrostatic discharge caused by the rubbing of the measured product.
NOTE: The absence of an adequate grounding connection automatically voids the warranty of the product.

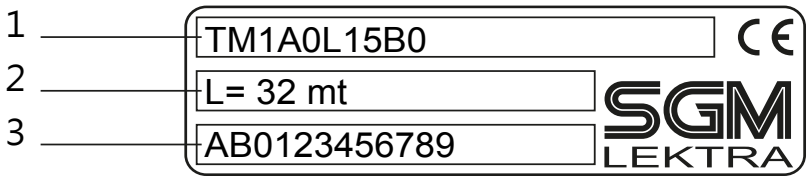
2- PRODUCT



1. Electrical connections cover
2. M16x1.5 cable glands
3. Process connection
4. Thermometer rope

2.1 IDENTIFICATION

Each instrument has an adhesive identification plate on which are the meter main data.
The following picture describes the information and data on the identification plate.



1. Product code
2. Length thermometer rope
3. Serial number

3-FEATURES

TM
Multipoint temperature probe with digital sensors, and AISI304 sheath, for temperatures detection in silos or warehouses for raw materials storage (cereals and dairy products).
The TM probe has a high response speed, thanks to the low thermal inertia, so it is also able to detect sudden changes in temperature (eg. Fire). T
he TM sheath, made in solubilized stainless steel, has the smooth external surface with a diameter of 8mm.
Connection between TM probe, with one or more digital sensors (maximum 50), and SGM LEKTRA MUXM concentrator multiplexer through core screened cable.
Compatible with the temperatures monitoring and control systems type: AGRITHERM50.

Housing material
aluminium coated with epoxy paint

Thermometric well material
SS304

Minimum mean bend radius of thermometric well
800mm

Process connection
SS304 1/2” G
Under rook arch fixing with 1mt. chain and bracket in carbon steel passivated
DN40 PN6 Carbon steel passivated flange
DN40 PN6 PP flange

Housing IP rating
IP 67

Thermometric well IP rating
IP 68

Measuring points
n° 1 ÷ xx (max n°50)

Measure range
-30 ÷ +125°C

Accuracy
±0,5°C (in the range of -10°C ÷ +85°C)

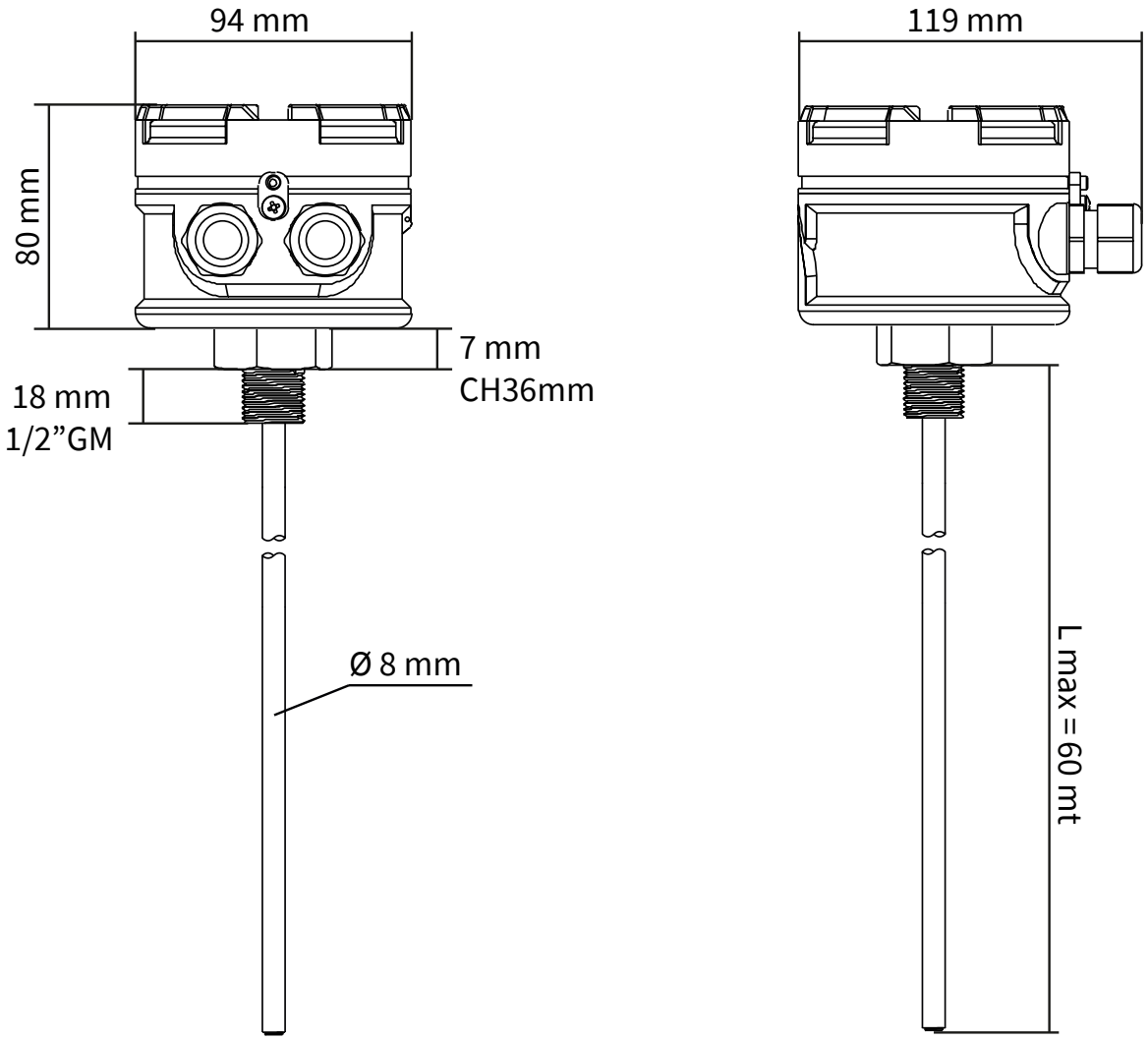
Power Supply
24Vdc ±10%

Consumption
Imax=65mA

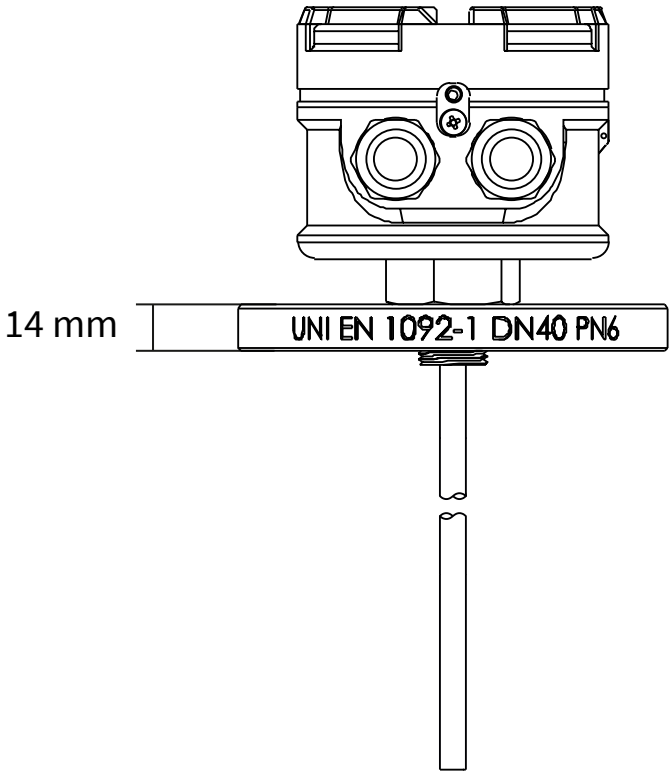
Certification
II 1D Ex ta IIIC T92° Da / II 2D Ex tb IIIC T67°C Db
ATEX Zone 22

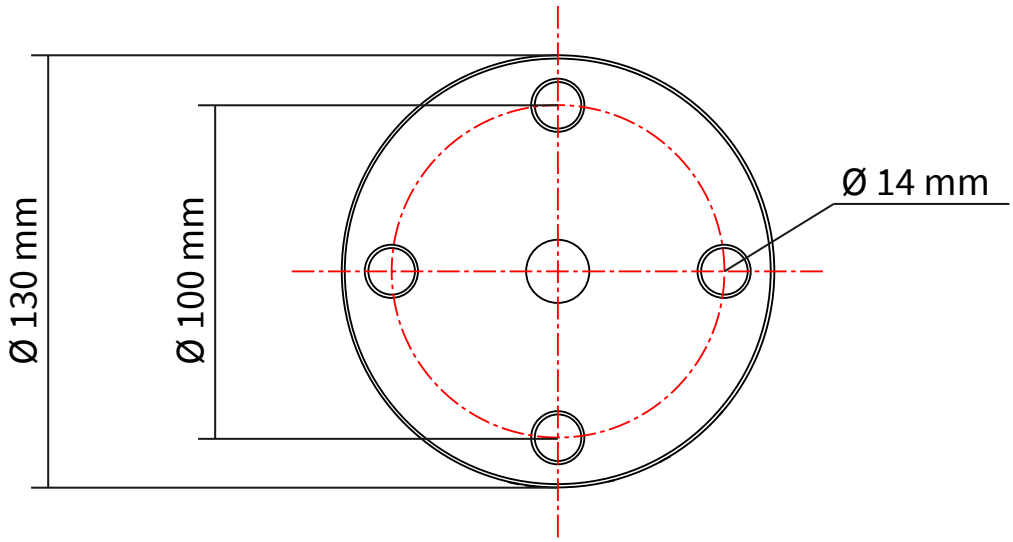
4-DIMENSIONS

4.1 MECHANIICAL DIMENSION

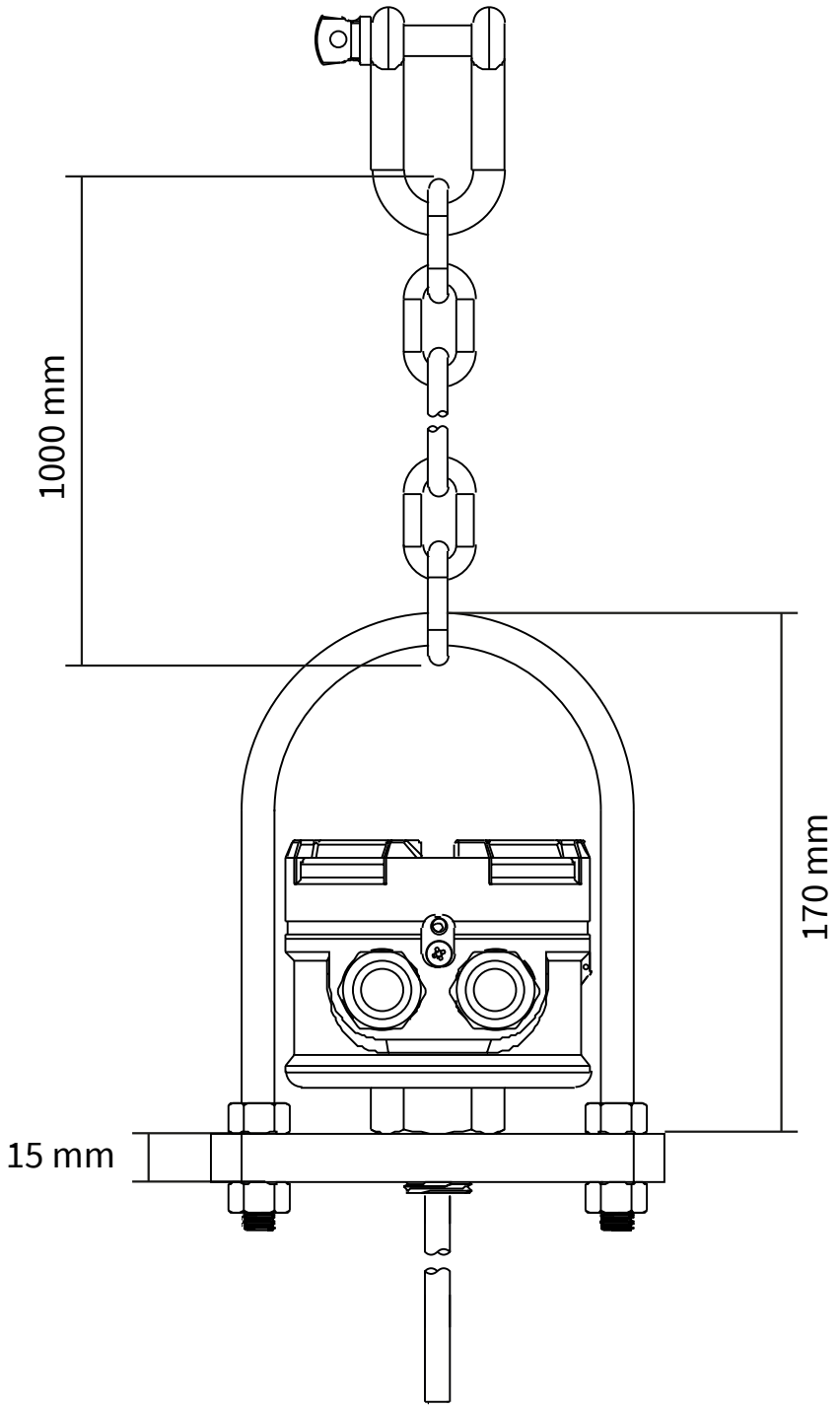


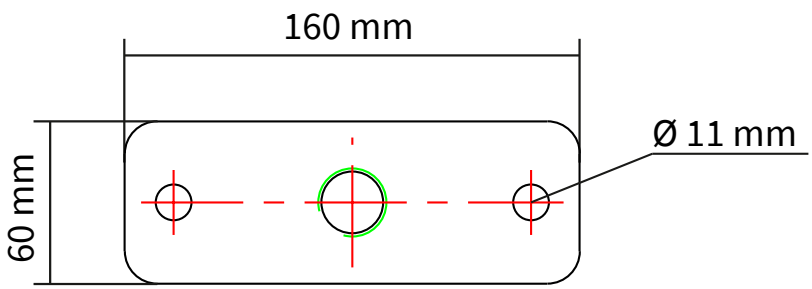
4.2 DN40 PN16 FLANGE





4.3 UNDER ROOF FIXING HOOK





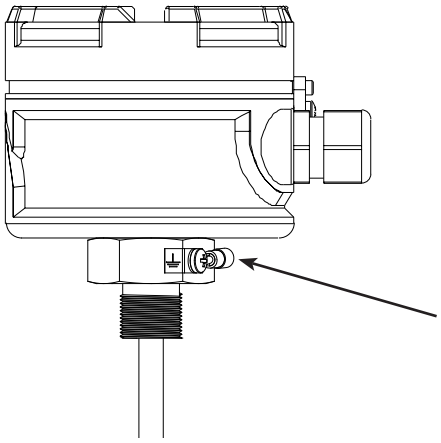
5-INSTALLATION

5.1 INSTALLATION PRECAUTIONS

- Installation must be only performed by qualified personnel and in accordance with local governing regulations.
- The equipment must be used only after having correctly transposed the instructions of this manual
- The power supply and electrical connections plate data must always be respected
- Improper device use would cause serious damage to people, to the product and connected equipment

5.2 GROUNDING

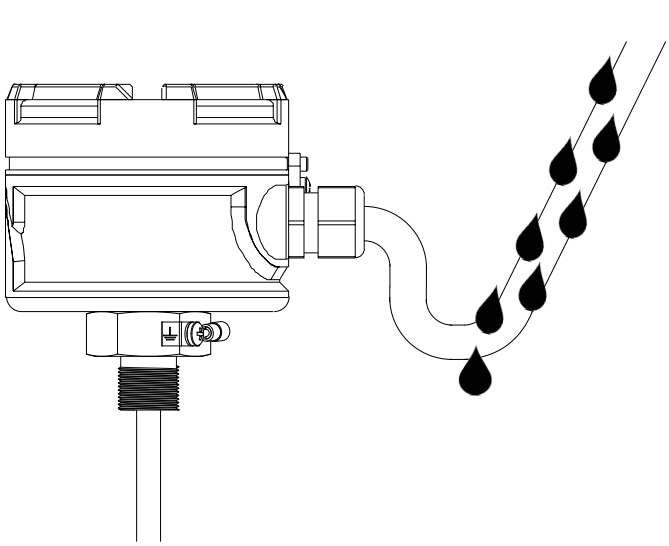
Ground connection is essential for protection against electrostatic discharge caused by the rubbing of the measured product.
NOTE: The absence of an adequate grounding connection automatically voids the warranty of the product.

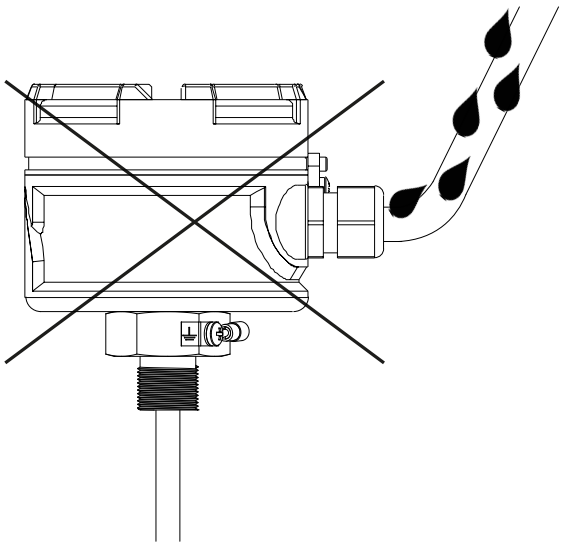


ATTENTION!
All the sensors must be grounded.

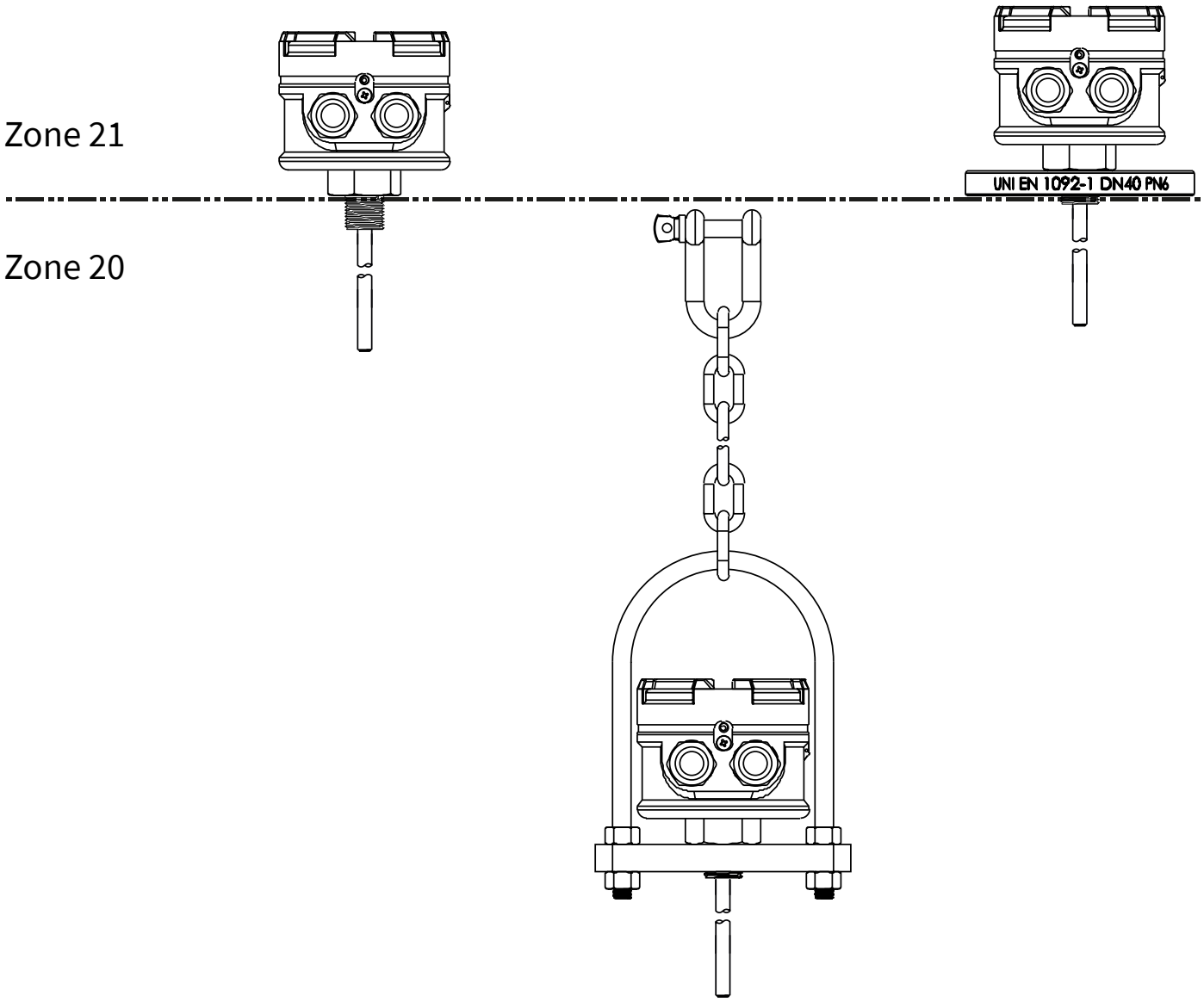
5.3 EXTERNAL MOUNTING ADVICE

- fully well tighten the cap and the M16x1.5 cable glands.
- For the connections between the TM probes and MUXM use the FUTP2PR AWG624/1 CAT. 5E cable or equivalent.
- position the cable so that it forms a downward curve at the M16x1.5 output (as shown below); in this way the condensation and/or rain water will tend to drip from the curve bottom.





5.4 ATEX ZONE IDENTIFICATION



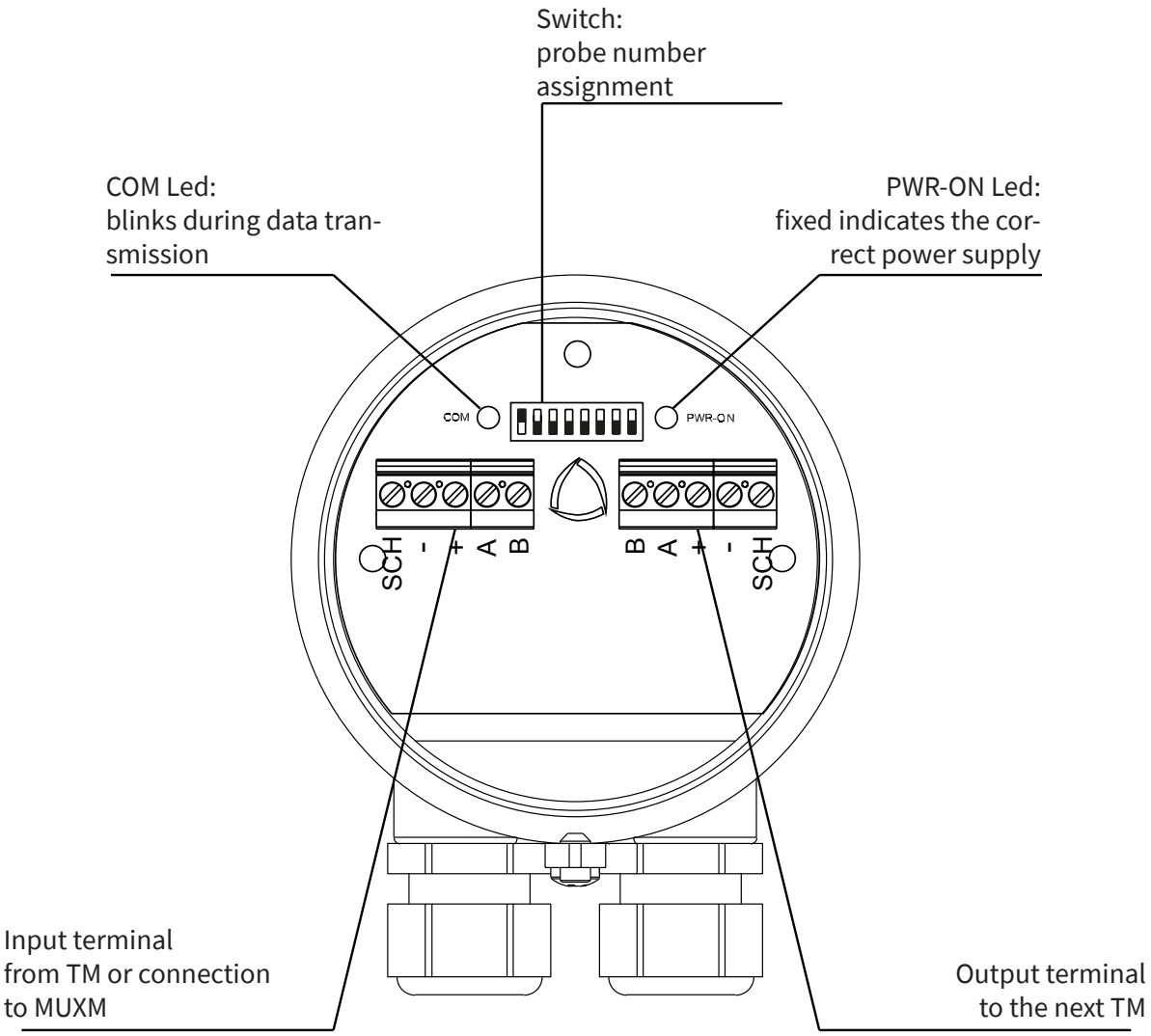
5.5 CONNECTIONS CABLE SPECIFICATION

FUTP2PR AWG 6 24/1 CAT. 5E cable	
FUTP2PR AWG 6 24/1 CAT. 5E cable	Copper rigid wire Ø 0,50mm
Conductors	Copper rigid wire Ø 0,50mm
Insulations	Polyethylene Ø 1,00mm +-0,1
Colors	2 white-green-brown
Twisted wires in pairs	Green/white - brown/white
Twisting	Twisted couples to each other
Shield	Polyester tape + continuity tinned copper wire + Mylar tape
Insulating sheath	PVC RZ BLUE RAL 5015 Ø 5,90mm+-0,50
Marking	SGM-LEKTRA-525B025A-F UTP 2PR AWG 6 24/1 CAT 5E + metric marking
Operating temperature	-25°C+70°C (fixed installation)
Test voltage	1,5KV V.c.a.
Working voltage	300/300V
Curvature radius	8 times the diameter
Reference Standards	CEI 20-35 - IEC 332.1 – CEI 20-37 ROHS 2011/65/UE(ROHS 2)

6-ELECTRICAL CONNECTIONS

6.1 CONNECTIONS

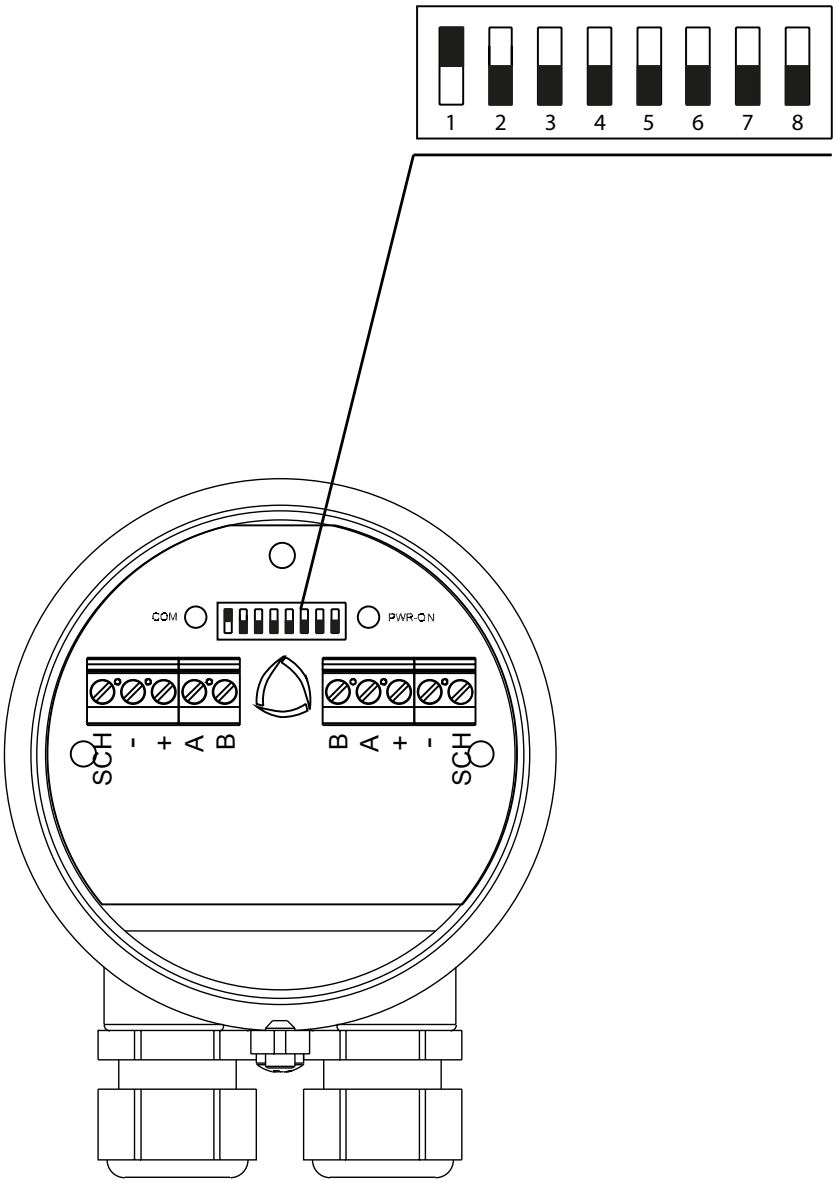
- Remove the closing cover and the caps from the cable glands.
- Insert the connection cables between the TM probes and/or between the TM probe and MUXM by passing them through the cable glands.
- Connect the cables to the appropriate terminals as per the following paragraphs.
- Assign the right sensor number using the appropriate switch (see section 6.6.1 on page 13)
- Fully tighten the cable glands and the cover to ensure IP67 protection



6.1.1 Probe number assignment

The dip switch present on the terminal board is used to configure the probe number.
To change the probe number:
- Put in the ON position (upwards) the lever of the sensor number to be set
- Put in the OFF position (downward) all the remaining levers.

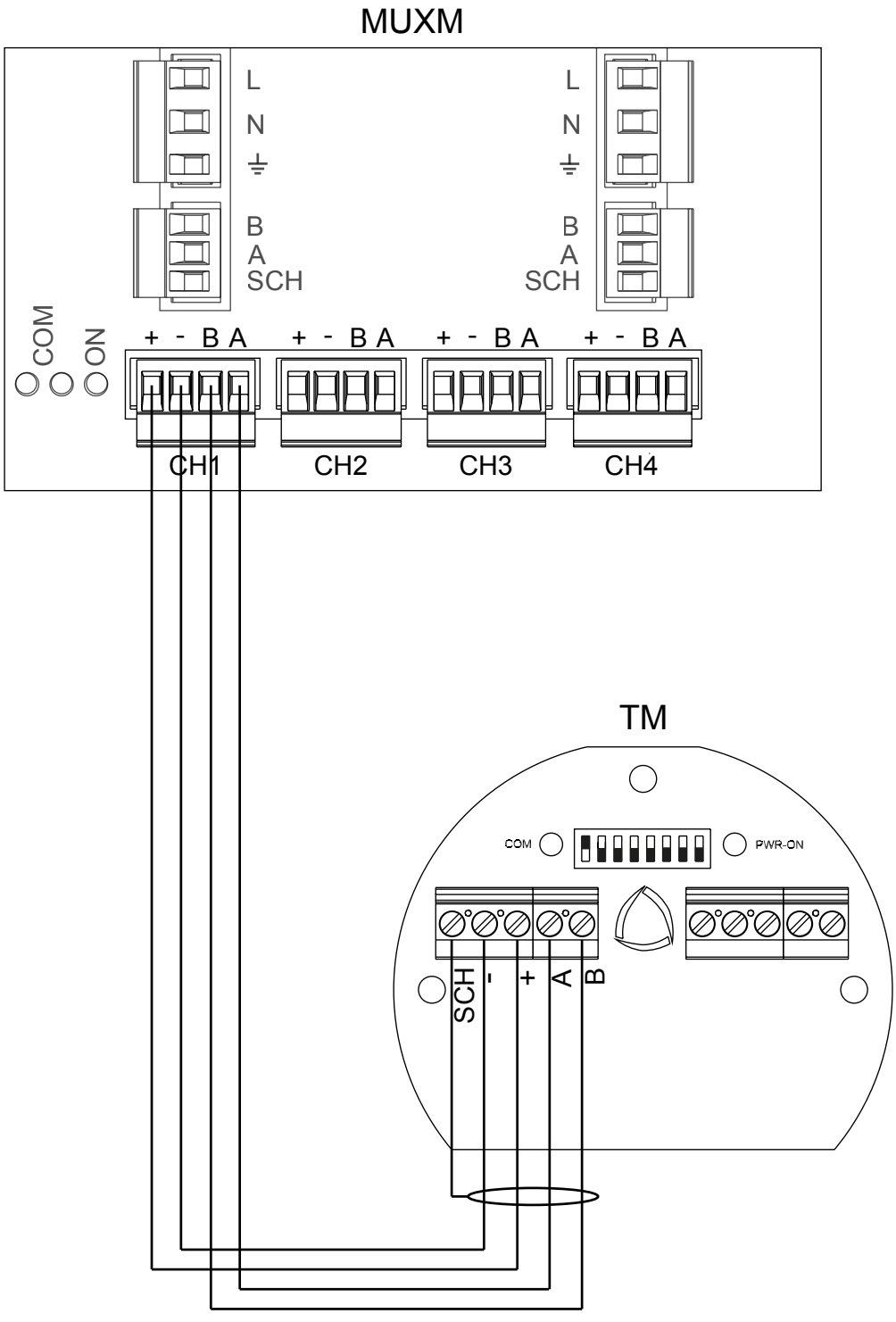
The figure below shows the example of a dip switch to set the probe number 1



6.1.2 Connection between a multipoint thermometric probe and a MUXM concentrator

For the connections between the TM probes and MUXM use the FUTP2PR AWG624/1 CAT. 5E cable or equivalent. The cable shield should only be connected to the TM probe side.

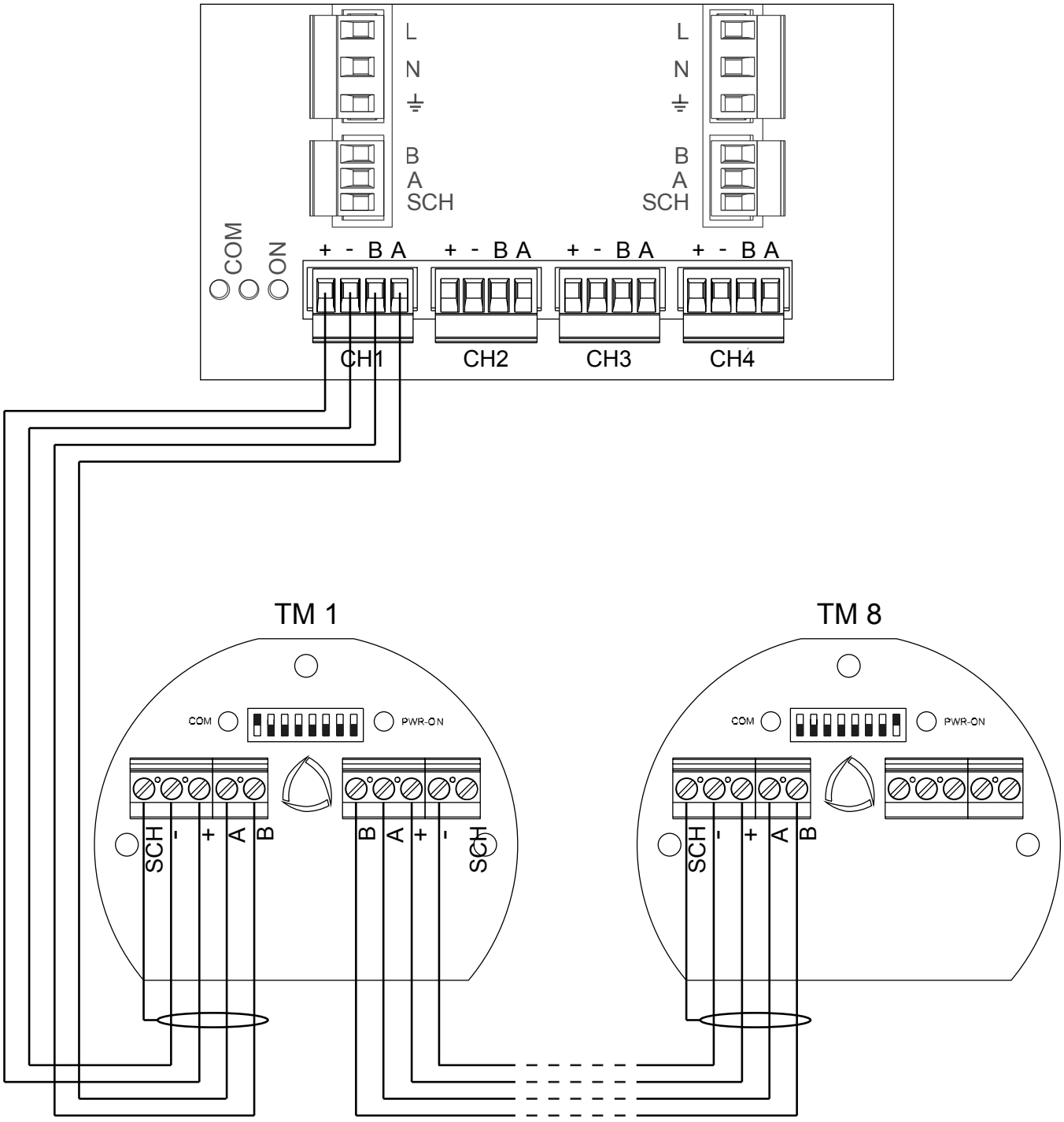
The figure below shows the connection diagram between the TM probe and the MUXM concentrator



6.1.3 Multiple TM multipoint temperature probes connection (max.8)

For electrical connection between TM multiple temperature probes use the FUTP2PR AWG624/1 CAT. 5E cable or equivalent. The cable shield must be connected only to the next TM probe side; ex .: when the TM2 probe is connected to the TM3probe, the cable shield must only be connected to the SCH terminal of the TM3 probe.

In the figure below shows the connection diagram between 8 TM probes connected to the MUXM first channel (CH1)



7-FACTORY TEST AND QUALITY CERTIFICATE

CE

In conformity to the company and check procedures I certify that the equipment:

TM ..... serial n°: .....

is conform to the technical requirements on Technical Data and it is made in conformity to the procedure

Quality Control Manager: ..... Production and check date: .....

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