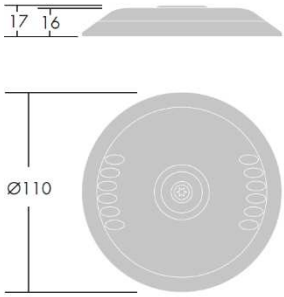
TGC

THORN

UK	Installation Instructions	**FI**	Asennusohje	**LV**	Instalacijas instrukcija
DE	Montageanleitung	**FR**	Notice de montage	**NO**	Monteringsanvisning
CZ	Montážní návod	**HU**	Szerelési útmutató	**PL**	Instrukcja montażu
DK	Monteringsvejledning	**IT**	Montavimo Instrukcijos	**SE**	Installationsanvisning
EE	Paigaldusjuhend	**LT**	Montavimo Instrukcijos	**RU**	Инструкция по монтажу

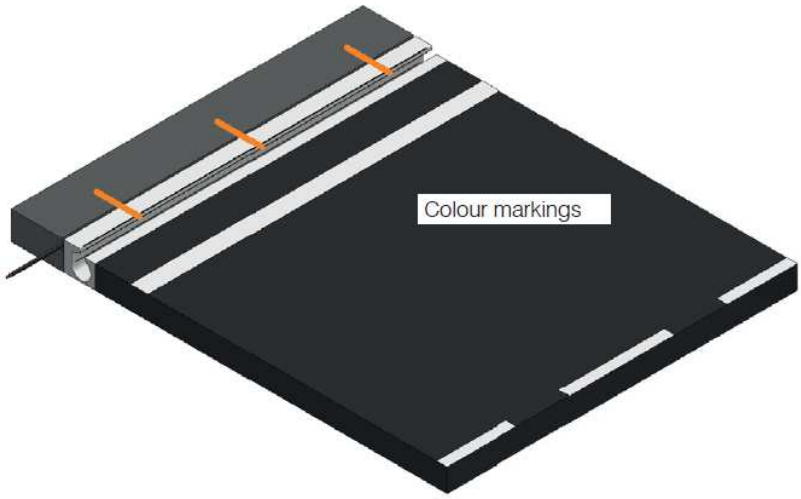
TYPE:



LED Class III CE

Measuring of locations

- Marking of location of TGC units in accordance with project (by spray colour)
- Recommendation :
  - entrance/exit zone (adaption), length 200m: a TGC each 12,5m
  - Interior zone: a TGC each 25m



Remark:
Due to obstacles (pit/joints etc.) the location of TGC has to be shifted as small as possible.

B- Milling a groove in the shoulder

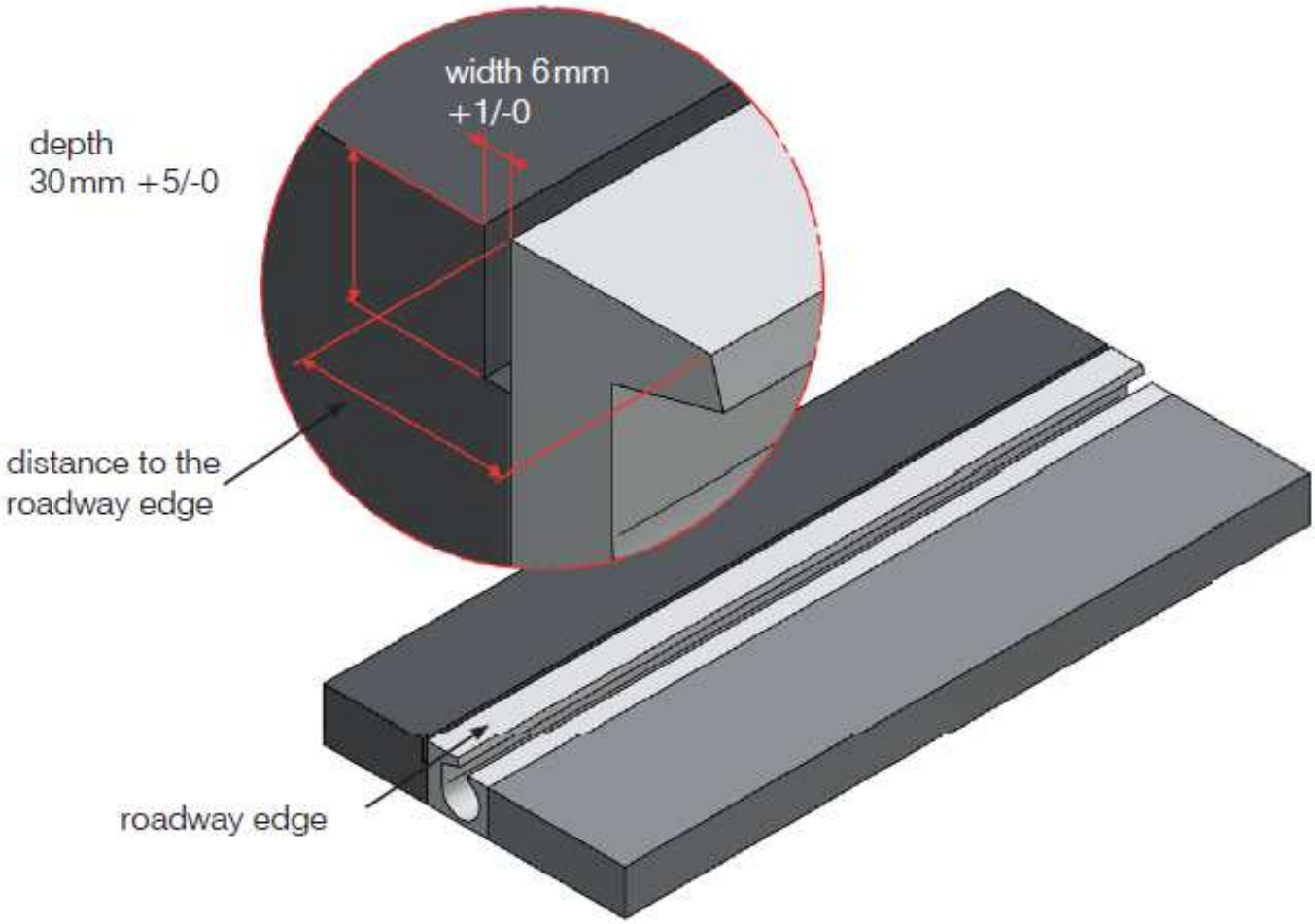
- Milling of a continuous groove (width 6 mm/depth 30 mm)
- Distance between groove and roadway edge project-specifically
- Milling around obstacles (pits etc.) after project default

Remark:
The system TGC makes a very small distance to the roadway edge possible.

A- Remove bitumen from groove / remove old system

- Mechanical clawing out of existing cables
- Blowing out rest of the groove

Remark:
Waste has to be recycled in accordance with local/national regulations.



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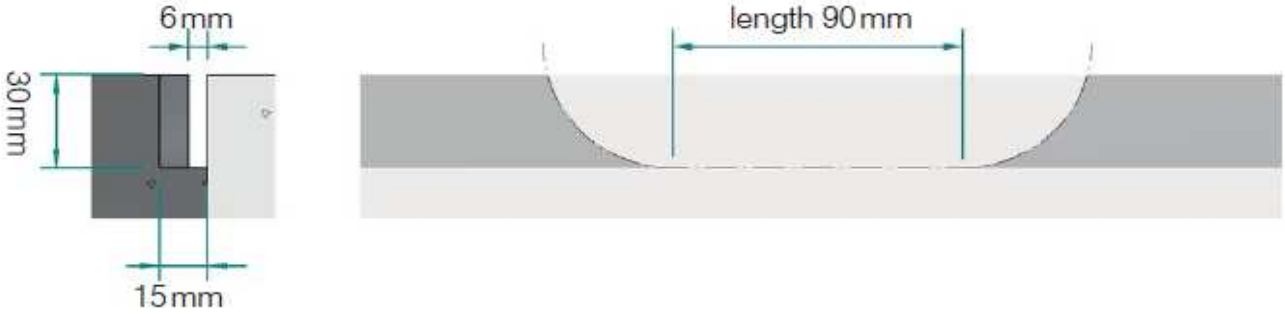
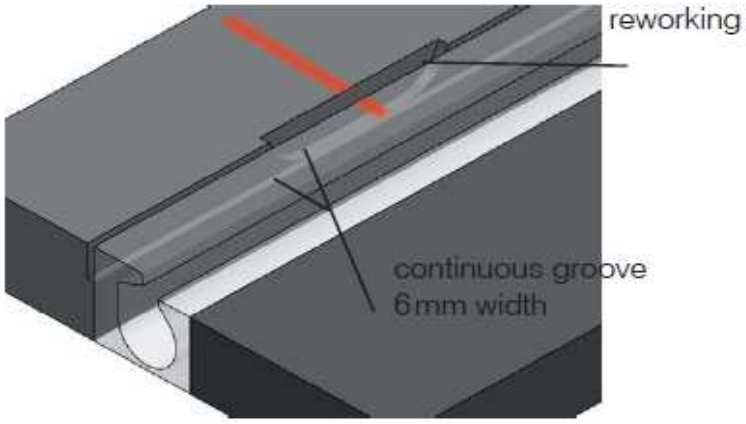
Rework of groove for current collector

- Reworking (width 15 mm / depth 30 mm / length 90 mm, running out)
- Tolerances are to be kept: in the width +1/0 mm, in the depth +5/0 mm
- Suitably clean and dry the whole groove subsequently



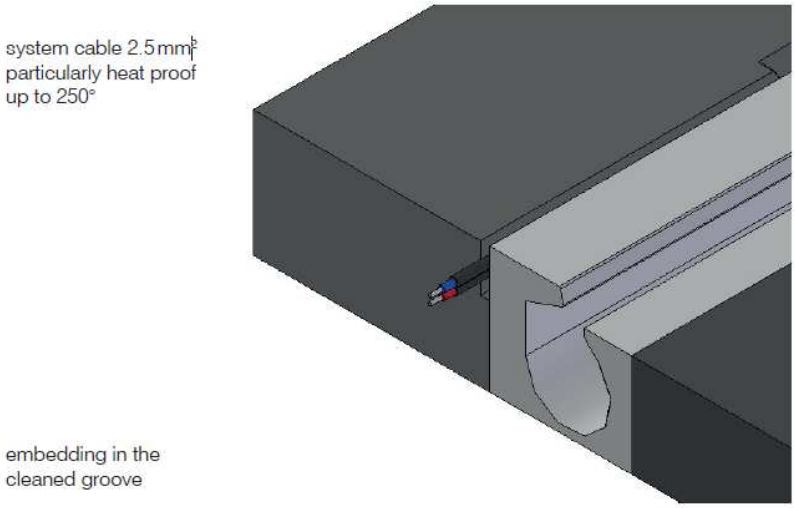


Remark:
At the location, where a signal light will be placed finally, the groove has to be worked over again.

3

Insert connecting cables

- Laying out of system cables on shoulder (special cables/braids by THORN)
- Insert starting at the control centre (in accordance with project default)
- Energizing lines (2.5 A / 2.5 V)

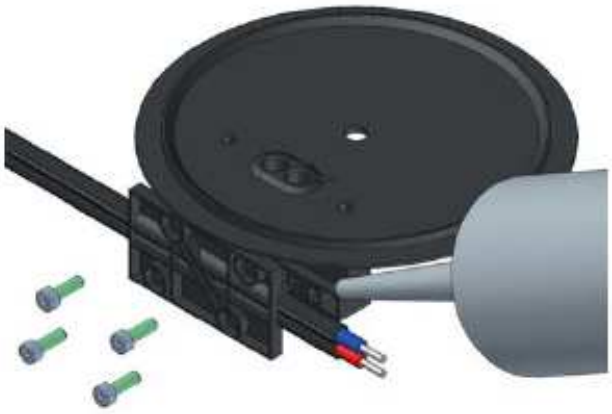


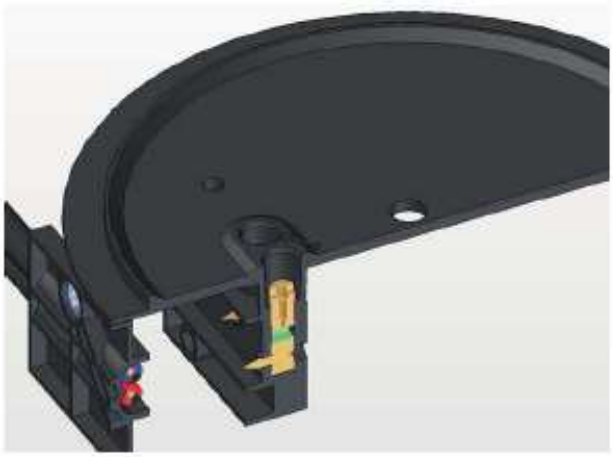
Remark:
System TGC only needs a very small cross section due to the small power input.
Even with consideration of the voltage drop, the cross section of 2.5 mm2 is sufficient. This offers advantages in the embedding, with the connection and not least with procurement costs.

CAUTION!
Protect the cables against mechanical damage!

Install current collectors onto braids

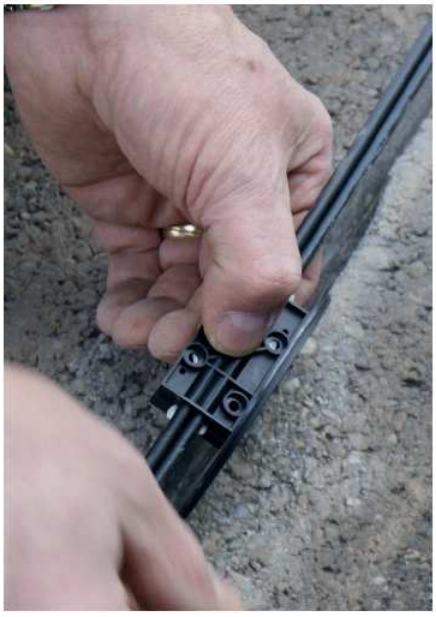
- Insert braids at the marking in lower part
- Put Permabond on upper section
- Sealing compound on base
- Bolt lower part with upper section (4 cross-notched screws V4A, PT 3 x 20 mm)
- Note: The end of the system cable has to be sealed after the last current collector. Cut off and separate the two braids 15 - 20 cm after the last current collector and seal each conductor separately by using a shrinking hose.





Remark:
Fill up the cavity between the contact pins with Permabond (sticking / sealing compound)
• The tightness of the current collector is ensured by bolting the lower and upper section with four 3.4 x 10 Torx 15 screws and the brought in Permabond
• Contact pins “bore” themselves into the braids

Caution!
Do not open a once “punctured“ braid again



Install current collector in groove

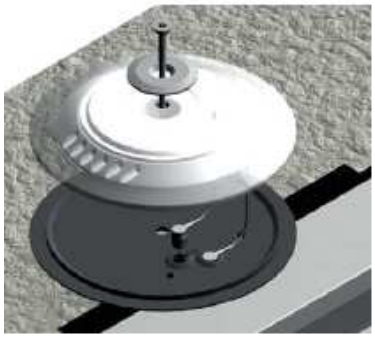
- Lay sticking/sealing compound on current collector and bring it into groove
- Insert current collectors into groove cleanly
- Briefly, press in slightly and afterwards occupy with THORN-weights

Remark:

- Cover contact areas and centre drilling with insulating tape.
- Small unevenness (+/- approx. 1 mm) can be caught by using sticking/ sealing compound (Permabond).

Put on the TGC

- Bore a mounting hole (Ø 5 mm / 40 mm in depth), position fixed
- Set dowel in borehole
- Remove painter tape
- MC strands must be connected untwisted
- Introduce MC plugs properly into the sockets
- Control whether the two o-rings are present (upper section)
- Spray the o-ring with the PTFE dry lubricant (item no.: 153005),
- so that the MarkLED can be placed easier
- Put the MarkLED on current collectors (positioning by two cams)
- Screw on with special disk and special screw (all provided)



Remark:
• If the inlet is already energized, the operability control can take place at the same time when putting the TGC on.
• It is advantageous that the screws are tightened by hand.

Caution!
No other assembly material must be used

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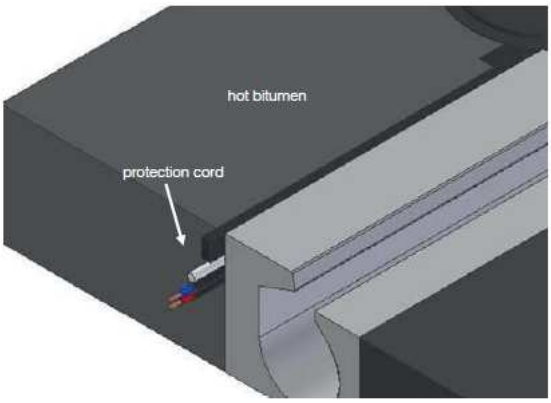
A- Insert cable protection cord and pouring out groove

- Insert cable protection cord over system braids (guarantees optimal laying of raids in groove)
- Pretreat groove with primer (if necessary)
- Pour groove by means of insulating material (hot bitumen or Epoxy-adhesives)
- Primer/sealing compound (after default)
- Repel redundant sealing compound cleanly after drying process

Caution!
Before pouring, an operability control must be accomplished compellingly!



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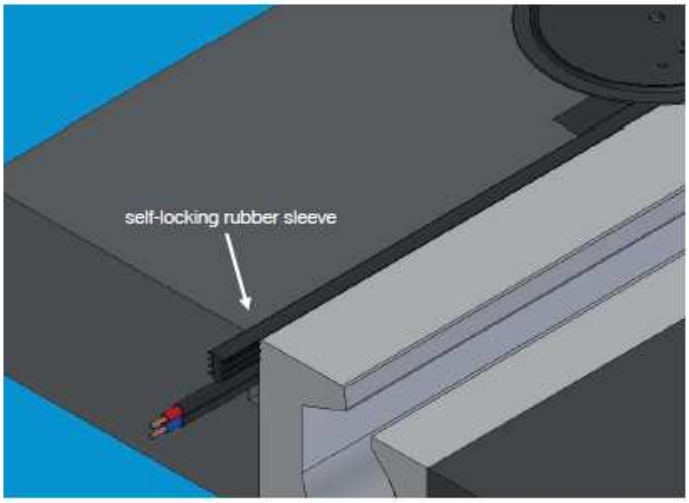
B- Insert system profile and filling bitumen around

- Instead of bituminous sealing / fiber cord, a self-locking rubber sleeve can be used (over cable).
- Spilling / pouring out residual space around TGC



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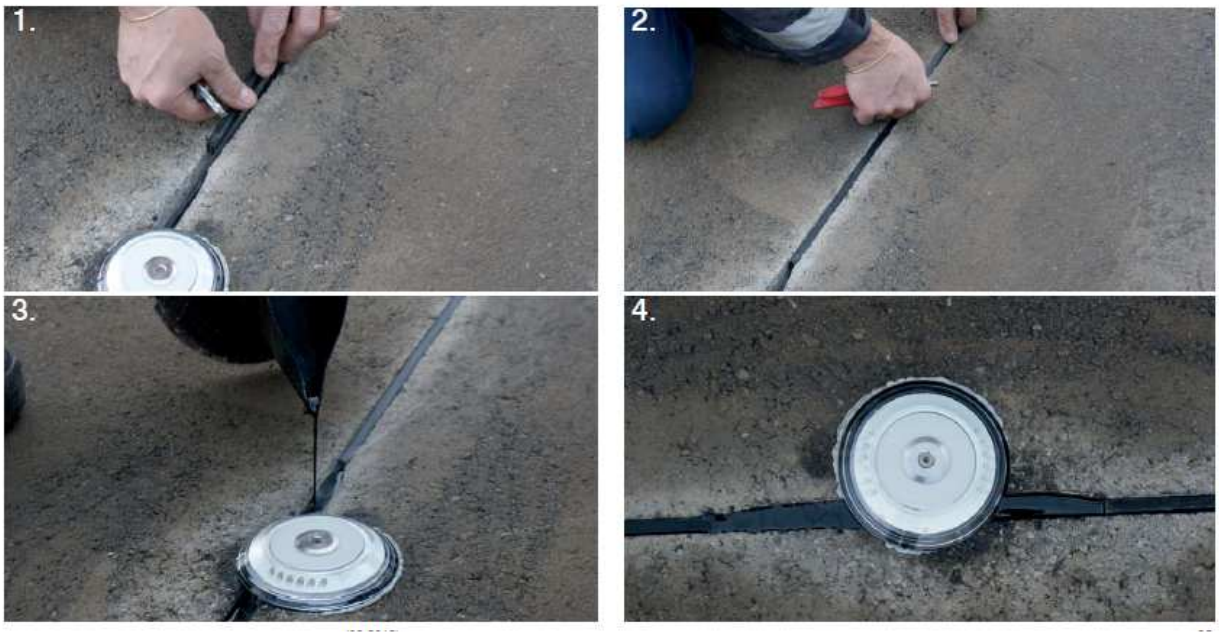

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Assembly of the control and attaching the shifted strands

- Install and attach ready-for-use-unit (after project default)
- Install and attach power supply unit
- Up to 4 line outlets connectabilly
- Program the unit(s)

Remark:

- The assembly of the control is to be implemented preferably before the shoulder assembly, so that while the inserting process, the operability control can take place.
- The control unit and the associated power pack are preferably integrated into existing distribution plants.
- The space requirement is relatively small. (control unit: l x w x h 250 x 160 x 90 power supply: 100 x 125 x 125 mm)