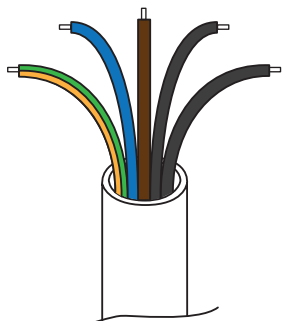


CGLine+ system: data line and power supply through a single cable

This document describes the technical specifications of a data line to ensure optimal operation of a CGLine+ system.



: Yellow & Green: Earthing connection

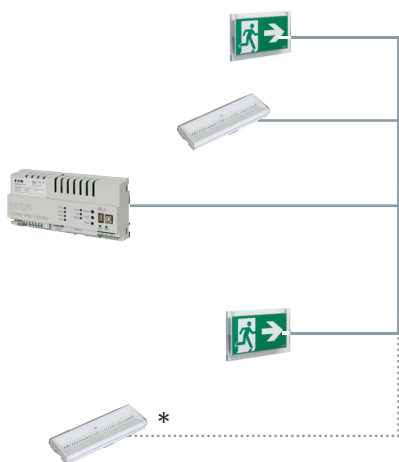
: Brown & Blue: Mains connection

: Black: Dataline

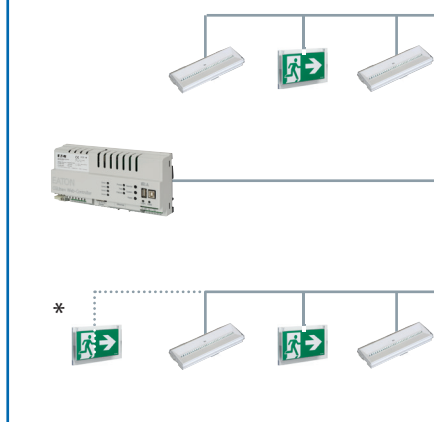
- CGLine+ Web Controller can monitor up to of 800 CGLine+ self-contained luminaires connected on a maximum of 4 data lines.
- Depending on the system configuration each data line can manage 200 (4 lines configuration) or 400 luminaires (2 lines configuration).
- Data line and power supply can go through the same cable.
- It is possible to use either 4 or 5 core cable.
- Earthing connection not required for communication purpose.
- Self-contained luminaires are protected from any accidental connection of mains on data line inputs (no damage).
- Only CGLine+ self-contained luminaires must be connected to the data line.
- Data line is composed of 2 non polarized wires (flexible or rigid).
- Cables have to run away from any source of electromagnetic interference.
- In case of doubt a shielded cable could be used in this interference zone only (eg power supply room of x-ray equipment)

The connection can be made as a line, a tree, a star or mixed structure (free topology) :

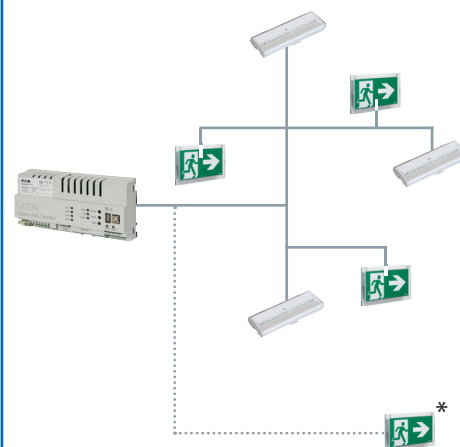
• Line topology (e.g. Tunnel configuration)



• Tree topology (e.g. Building configuration), data line is running through each stair



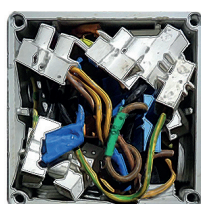
• Star topology



Wire cross section	Max length of a branch (Distance to farthest luminaire)	Max total cable length per line	Max voltage drop at luminaire	Max induction voltage
1.5 mm ²	800 m	2000 m *	8 Vdc	1,5Vac on 800m
1.0 mm ²	520 m	1320 m	8 Vdc	1,5Vac on 520m
0.5 mm ²	260 m	660 m	8 Vdc	1,5Vac on 260m

Reliability of communication depends on the quality of electrical connections. Please ensure that special attention is done on the derivation boxes :

Poor:



Good:

