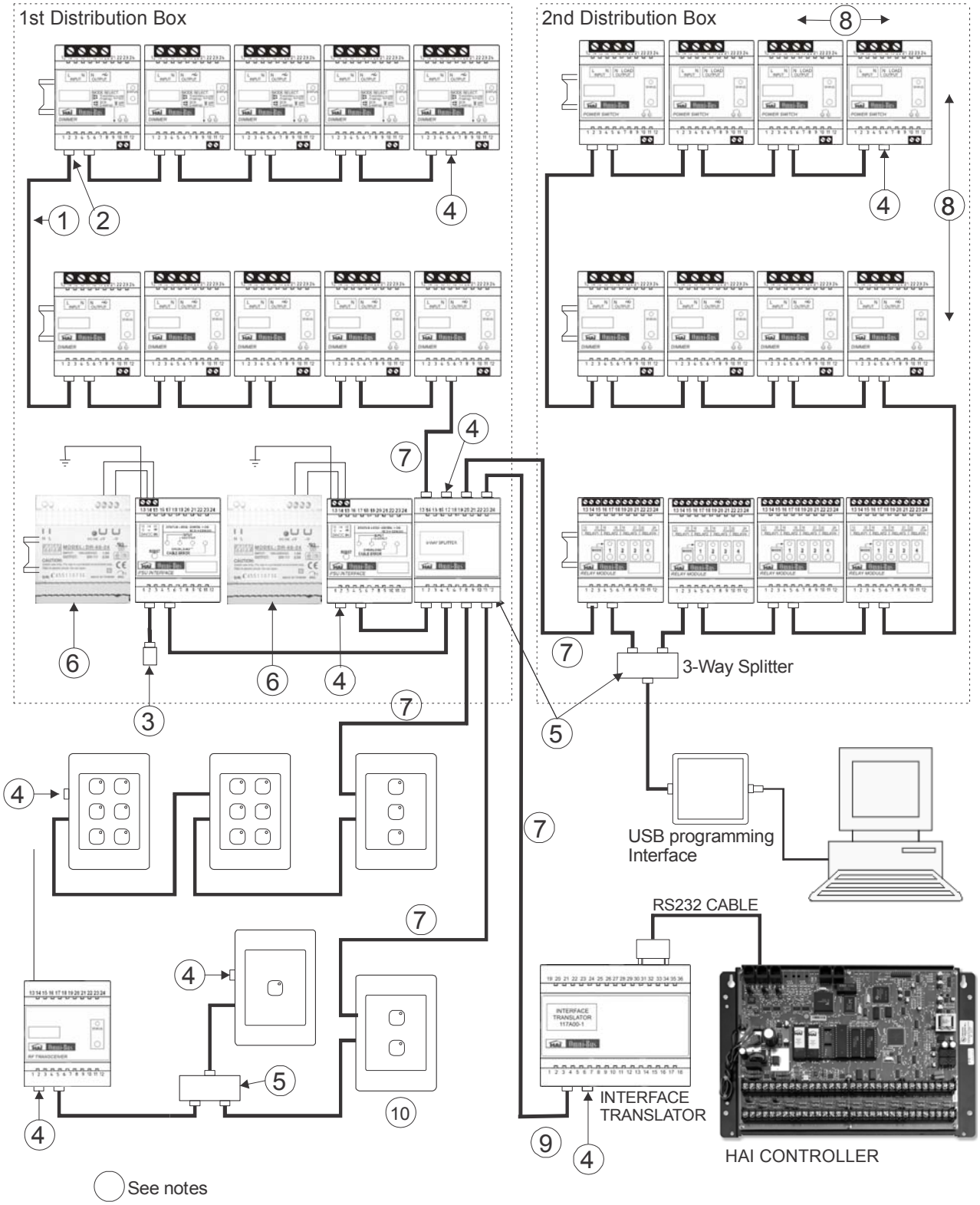
5. Typical Application



Notes

1. **Network cable**
   a. CAT5 UTP (Category 5 Unshielded Twisted pair (4 pairs), stranded or single core)

2. **Crimp Connectors**
   a. All cable ends must be terminated with RJ45 plugs (see figure 1)

3. **Network Termination Plug**
   a. Each network must have ONE and only one network Termination Plug (122A00-1).
   b. It is recommended that the Termination Plug always be installed at the power supply interface.

4. **Jumpers**
   a. No open ends or open connectors are allowed on the network.
   b. All open ends or open connectors must be terminated with a Network Jumper Plug (121A00-1)

5. **Splitters**
   a. Where a T-junction or network split is required, a Splitter box must be used (119A00-1 or 120A00-1)
   b. A Splitter can be inserted anywhere on the network

6. **Power Supply**
   a. Each Power Supply Unit must be connected to the network via a separate Power Supply Interface unit (124A00-1)
   b. Each power supply can supply up to 2A to the network
   c. More than one power supply can be used if the total network current consumption exceeds 2A
   d. To obtain the total current requirement, add up the individual current consumptions of all devices on the network (see table 1)
   e. The power supply(s) must be installed at the point where most devices are located (usually the distribution board) to avoid excessive voltage drops over long cables
   f. The supply voltage at any point on the cable (pin 1 and 8) must be between 15 and 24VDC.

7. **Supply Distribution**
   a. The total number of devices on a single network split from the power supplies must not exceed 50 devices
   b. The total current consumption of devices on a single network split from the power supplies must not exceed 2A (see table 1)

8. **Device Placement and Isolation**
   a. The HAI Omni-Bus units have been designed to operate over an ambient temperature range between 0 ºC and 40 ºC at the rated maximum load capacities. Sufficient spacing and airflow between devices should be allowed for in the distribution board. The minimum recommended horizontal spacing between dimmer devices is one din rail module width (17mm or 2/3inches).
   b. All network connections and cabling are low voltage and optically isolated from the mains supply voltage and must thus be kept away from any mains wiring
   c. Sufficient spacing must be allowed for this between consecutive din rails in the distribution board (minimum recommended spacing between din rail centers = 150mm or 6inches)
   d. Do NOT route any network cables via the same conduits as mains wiring

9. **Maximum Cable Length**
   a. The total cable length on a single bus network may not exceed 1000m (3280feet)

10. **Maximum Number of Devices**
    a. The total number of devices on a single bus network may not exceed 256