Cable Termination Unit
Type DT 01

**Product Description**
Dupline® termination unit for removing distortion caused by reflections from the cable ends.

**Type Selection**
Ordering no.  
Cable termination unit  
DT 01  
No code module required

**Supply Specifications**
Rated operational current  
Typ. 220 µA ≤ 10 mW  
Power dissipation  
≤ 10 mW

**Mode of Operation**
When a generator connected to a non-terminated cable emits a square-wave signal, the cable ends will always cause reflections. Depending on distance and frequency, the signal can be distorted to a degree where the information becomes unreliable. However, these reflections can easily be removed by mounting the correct termination unit at the cable end. In the case of Dupline®, the critical distance between the generator and the far cable end is 2 km and above. Consequently, if as a rule of thumb a DT 01 termination unit is mounted at the cable end when the distance to the channel generator exceeds 1.2 km, reflections are avoided.

**Note 1:**
In case of branches on the cable it is only necessary to mount a second DT 01 if the distance to the nearest DT 01 exceeds 1.2 km. In all other cases a second DT 01 should not be mounted since it increases the capacity of the cable and thereby reduces the transmission distance.

**Note 2:**
The DT 01 is the only unit which can remove reflections and consequently cannot be replaced by other Dupline® modules.

**Ordering Key**
| Type: Dupline® | DT 01 |
| Type no.       |       |

**General Specifications**

| Environment   | Degree of protection | IP 20 |
|               | Pollution degree     | IEC 60664 |
|               | Operating temperature| -20° to +50°C (-4° to +122°F) |
|               | Storage temperature  | -50° to +85°C (-58° to +185°F) |
| Humidity (non-condensing) | 0 to 80% |
| Mechanical resistance | Shock | 15 G (11 ms) |
|                       | Vibration | 2 G (6 to 55 Hz) |
| Dimensions       | Material            | H1-Housing |
| (see "Technical Information") | Weight | 45 g |

Specifications are subject to change without notice (28.04.03)  
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Wiring Diagrams

Example 1
In this example the cable has two branches, and the distance from the channel generator to the cable ends exceeds 1.2 km. Consequently, a DT 01 must be mounted at both ends since no DT 01 is mounted within a distance of 1.2 km from the channel generator.

Example 2
In this example the cable also has two branches, and the distance from the channel generator to the far end of the cable exceeds 1.2 km. However, in this case it is not necessary to mount a DT 01 at point B, because the distance to the nearest DT 01 at point A is shorter than 1.2 km.

Dimensions (mm)

H1/H2-housing