IMPEDANCE BOND DT 075 C

- **Used for AC and DC catenary voltage**
- **Replaces older types of impedance bonds**
- **Installation is identical with the imported types**
- **Oil cooled model**

General Description
DT 075 C Impedance bond is a part of the double rail track circuit system. It is designed for tracks electrified by 3 kV catenary voltage, 25 kV, 50 Hz single-phase catenary voltage and for tracks with independent traction system.

It enables transmission of reverse catenary, heating or auxiliary current over the insulated joints from one track section to the adjacent track section. It secures function of track circuits supplied or coded by signal current with frequency between 25 Hz and 400 Hz.

Basic Technical Description
The impedance bond system is clamped by stirrups to the bottom part of the carrying insulation board screwed into the cast iron housing filled with the transformer oil.

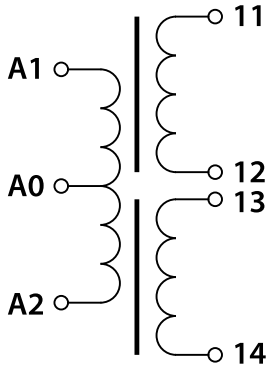
Impedance bond includes the main and the supplementary coil. The main (track) coil consists of two identical windings each with six 160 mm^2 diameter coils made of (40 × 4) mm conductive copper strap with a common centre outlet.

The supplementary coil consists of two separate windings each with 252 coils made of ø 0,9 mm insulated copper wire, each winding with its own output. All coils have the same sense of winding. The main coil is mounted in such a way that the mechanical strain is not carried over from the outer outlets to the impedance bond.

The housing includes two terminal strips for the major link with several impedance bonds. The bottom of the terminal box is set up as an input of up to three 30 mm diameter external cables with sealing possibility.

The required oil capacity is approx. 15 litres.

DT 075 C impedance bonds



Impedance bond wiring diagram

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Basic Technical Parameters

Transformer ratio	21 or 42	
Continuous permitted DC tractive current of the main coil	2 × 500 A	
Continuous permitted AC tractive current of the main coil	2 × 450 A	
Continuous permitted signal current of supplementary coil	2,5 A	
Total no-load impedance of the main coil without bias	at 5 V and 275 Hz	0,71 to 0,78 Ω
	at 1 V and 275 Hz	0,68 to 0,73 Ω
Insulation resistance between galvanically separated live parts of coils and between the live parts of coil and impedance bond	min. 2 MΩ	
Electric strength between galvanically separated live parts of coils and between the live parts of coil and impedance bond	4000 V	
Cover rating	IP 54	
Working temperature range	−40 to +70 °C	
Transformer weight	without oil charge	105 kg
	with oil charge	119 kg

Impedance bonds connected to track circuits