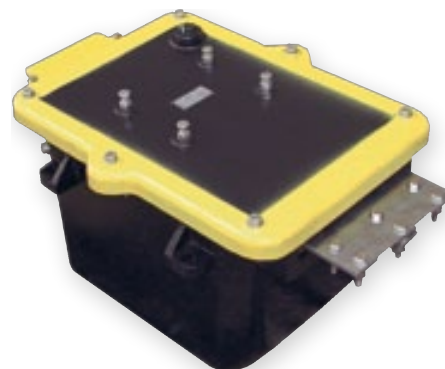


IMPEDANCE BOND STM 0,93 B

- Used for Metro track circuits
- Substitutes the imported types of impedance bonds
- Increased resistance against temporary souse effects – IP 57
- Increased resistance against saturation by catenary currents
- Oil cooled model
- Easy installation



General Description

STM 0,93 B Impedance bond is part of Metro double rail track circuit equipment.

It enables transmission of reverse catenary, heating or auxiliary current over the insulated joints from one track section to the adjacent one.

It supplies the track section by 275 Hz signal current and carries out its detection. It separates galvanically track section relay or power supply end from reverse catenary currents of track section.

Basic Technical Description

The impedance bond housing includes magnetic circuit with the main and supplementary coil and terminal boxes with a lid. Impedance bond has an oil charge.

Impedance bond housing consists of the watertight cast iron tank with the removable lid. Between the lid and the tank is a gasket.

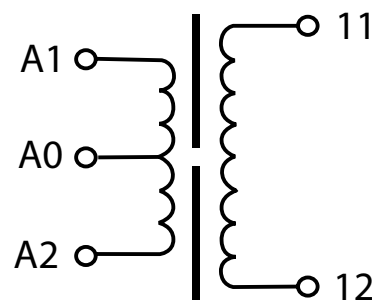
The main coil outlets are (50 x 8) mm insulated copper straps brought-out to the front side of the impedance bond. To prevent damage during transportation and storage the outlets of the main coil are protected

with bolted fixation plate which is removed during final assembly.

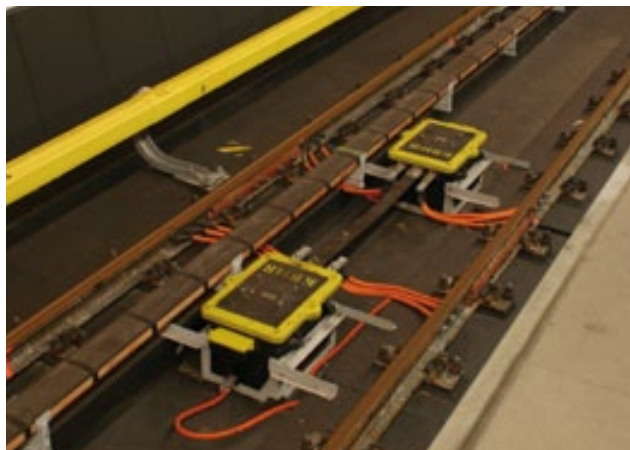
The supplementary coil is a flat, self-contained and impregnated coil consisting of 400 windings of 1 mm insulated copper wire.

The main coil and the supplementary coil are positioned in such a way that the winding direction is the same.

The terminal box with the tight lid is bolted to the back wall of the impedance bond.



Impedance bond diagram



STM 0,93 B impedance bonds



Basic Technical Parameters

Transformer ratio	40
Continuous permitted DC tractive current of the main coil	2×2000 A
Continuous permitted AC tractive current of the main coil	2×450 A
Continuous permitted signal current of supplementary coil	4 A
Total no-load impedance of the main coil without bias	$0,170 \pm 0,005 \Omega$
Insulation resistance between galvanically separated live parts of coils and between the live parts of coil and impedance bond	min. 20 M Ω
Electric strength between galvanically separated live parts of coils and between the live parts of coil and impedance bond	4000 V
Cover rating	IP 57
Working temperature range	-15 to +70°C
Transformer weight without oil charge	approx. 350 kg



Impedance bonds at metro station railyard



Impedance bonds at metro line