Wabtec CORPORATION

Transit

Brake Control Electronic + Wheel Slide Protection

Description :

- Brake Control Electronic (BCE) unit with Wheel Slide Protection (WSP) is integrated in one 19" rack.
- It is used to manage the Brake control and WSP function in the Coach/Car.
- Belongs to Gemini II platform.
- It receives Brake demand from TCMS / Manipulator for the Brake application / release.
- Communication with TCMS is through RS485/MVB/CAN/Ethernet communication (dual homing posible)
- Internal communication between BCEs is optional and realized through Echelon interface.

Application : Semi-High Speed Train / Metros

Key Benefits of Product :

- Standard 19" rack (84TE, 3U)
- Bogie and car control architecture
- Wheel slide protection at Bogie or Axle level with optional Full redundancy (Dual channel Speed sensor & Dump valves)
- In-built power supply to operate Dump valves
- Embedded Self Diagnostic feature
- In-built fault and event logging feature
- Monitoring and Diagnostic of functionality using dedicated MMI / Software

Types of Boards:

- CPU Board with MMI and Communication Interface (Ethernet, RS232 and RS485)
- Power supply board
- Echelon communication board
- IDB board and Relay board
- Digital input board and Digital output board
- WBI boards for WSP function
- SIL4 WSP with dedicated board

Technical Features :

- Control type : Microprocessor control
- Space envelope : 483(L) x 202(W) x 133(H) mm
- Weight : 4.5 Kg
- Operating temperature : -25°C to +70°C
- Operating voltage : 24 VDC to 110 VDC, Acc. to EN 50155

Standards Compliance :

- Electronic equipment : EN 50155
- Software : EN 50128/50657
- Shock & vibration : IEC 61373
- EMI / EMC : EN 50121-3-2
- Environmental test : EN 50155
- Fire & smoke : EN 45545
- RAMS : EN 50126

References :

- LHB Coaches - IR
- Metro, India: Delhi, Lucknow, Kochi, Mumbai
- RRTS & MRTS, India
- Vande Bharat, India
- Worldwide applications