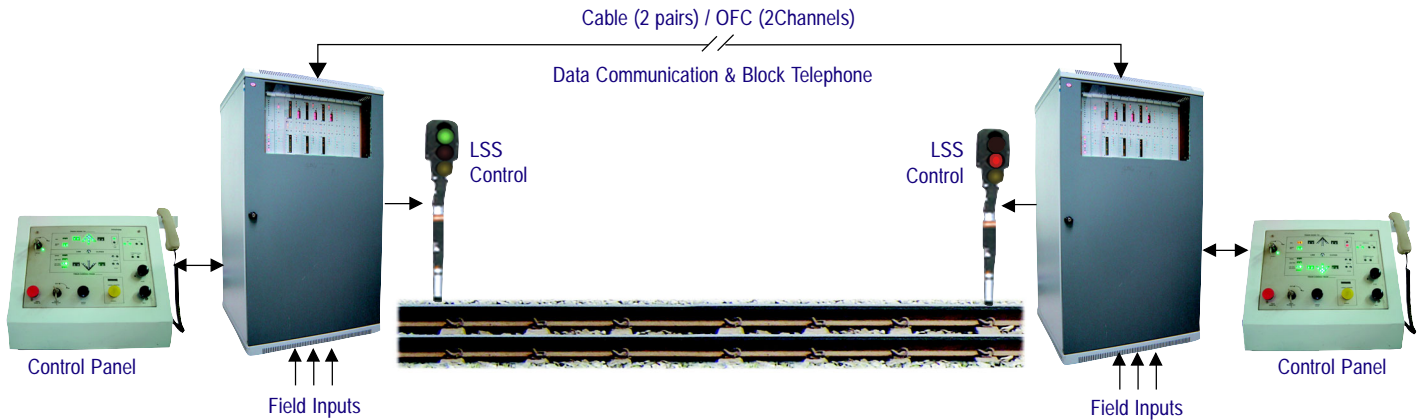


SOLID STATE BLOCK PROVING BY AXLE COUNTER (DIGITAL)

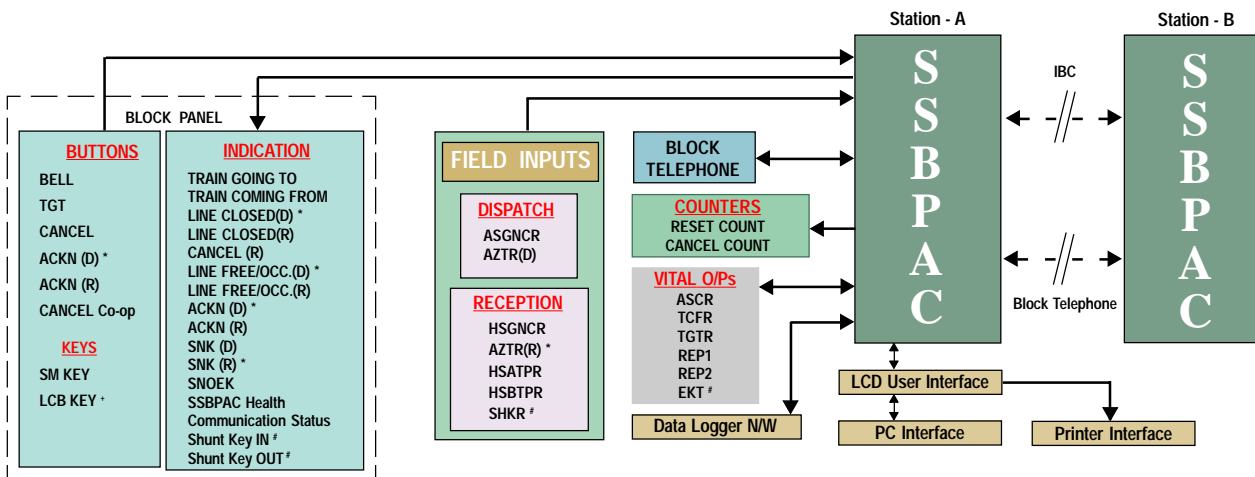
RDSO Specification: RDSO/SPN/175/2005

Solid State Block Proving by Digital Axle Counter (SSBPAC) is a solid state system used for controlling the coordinated movement of the train in the block section, working on Absolute Block Working Principles. The system has been developed as per RDSO / SPN / 175 / 2005 both for single line and double line.



SALIENT FEATURES

- ❖ Works on both single line and double line.
- ❖ Cooperation from other end is eliminated for taking Line Clear.
- ❖ Cooperative cancellation.
- ❖ Automatic Train On Line and Automatic Line Closed.
- ❖ Supports Block Back & Block Forward Operations.
- ❖ Line Clear Block Key (LCB Key) is provided to prevent automatic granting of Line Clear in case of shunting.
- ❖ Station Master Key (SM Key) to prevent unauthorized panel operations.
- ❖ LCD maintainer interface for knowing the status of each input, faults occurred, Time setting etc.
- ❖ Fully solid state and relays are only for vital outputs.
- ❖ Each event is logged in the system and can be used for analysis purpose.
- ❖ Compatible with data-logger network, data can be transmitted to central locations.
- ❖ Works on OFC as well as Copper cable.
- ❖ Block bell and telephone on separate pair of quad or OFC
- ❖ Audio warning on occupation and clearance of Block section.

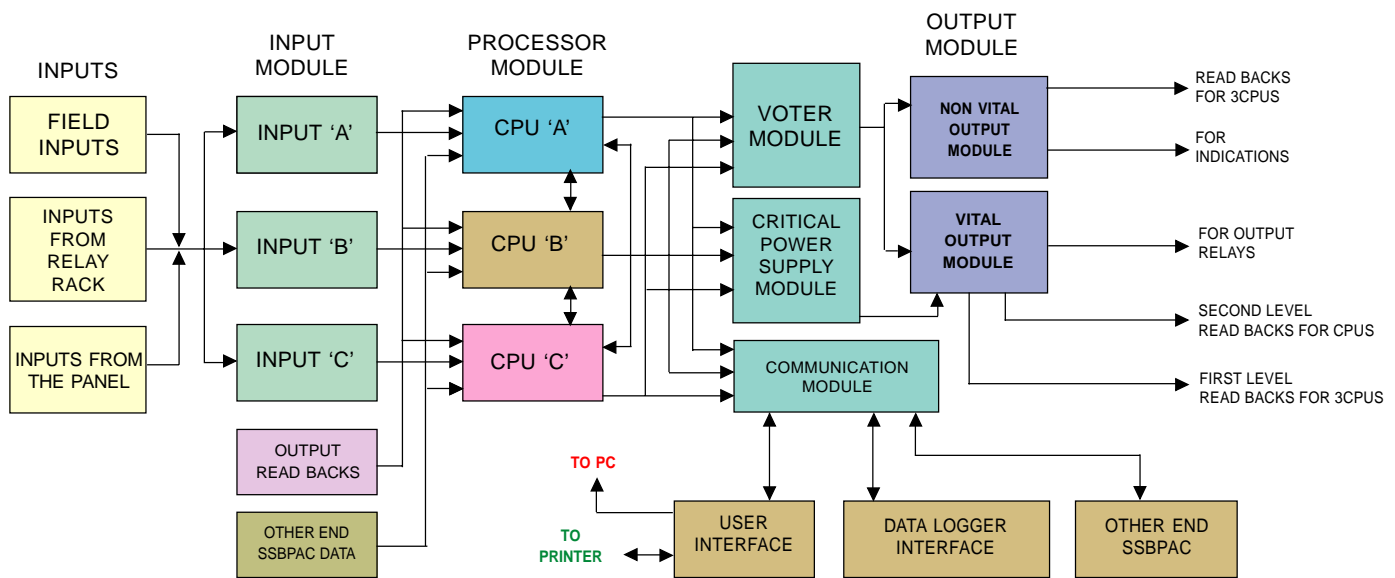


* Not necessary for Single Line # For Single Line only + LCB key acts as shunt key release in Single Line

ADVANTAGES

- ❖ Less Maintenance and No periodical over hauling.
- ❖ Consideration of Overlap distance for granting Line Clear, which is not available in some of present systems.
- ❖ Inbuilt data logging capability which logs all the Panel operations, events, relays status and other information.
- ❖ Data logger network portability makes it possible to view online and analyze the data at central location.
- ❖ All the panel indications are with LEDs.
- ❖ Auto TOL and Line Close relieves manual operation.
- ❖ No need for next train on PLC after push back operation.

SSBPAC ARCHITECTURE



FIELD PERFORMANCE

SSBPAC (D) **Single line systems** are installed between **Kovvur (KVR) and Godavari (GDV)** block section & **Double line systems** are installed between **Bhimadolu (BMD) and Pulla (PUA)** block section both in **Vijayawada - Howrah route**. The systems are operated between **6:00 hrs to 22:00 hrs.** in parallel to the existing block instruments.

The Single Line field trial between Kovvur and Godavari is commenced from June 16th 2006, operations done till July 2009 are given below.

No. of operations from	GDV – KVR	10,918
No. of operations from	KVR – GDV	33,850
Total		44,768

The Double Line field trial between Bhimadolu and Pulla is commenced from 25th Jan 2006, operations done till July 2009 are given below.

No. of operations from	BMD – PUA	28,956
No. of operations from	PUA – BMD	26,836
Total		55,792