Siemens 6ES7153-2BA82-0XB0

01 High-Feature PROFIBUS Interface Module

Siemens 6ES7153-2BA82-0XB0 coordinates configured I/O and diagnostics between the field station and DP master. Redundant interface arrangements, module replacement and timestamp functions must be engineered as complete station features.

1. **PROFIBUS DP master**
2. **IM 153-2 HF / partner**
3. **Active station backplane**
4. **Qualified ET 200M I/O**

Physical and functional arrangement

The outdoor execution must be combined with the appropriate expanded-environment I/O and bus hardware. An outdoor interface alone does not qualify every attached standard module for the same environment. Preserve the intended rail, active bus and field-module arrangement.

Signal path and configuration

The BAx2 interface supports an expanded module count, but high-accuracy timestamp use imposes a lower module limit. Capacity planning must therefore include enabled functions rather than counting physical slots alone. Configure the correct interface and I/O identities in the controller project.

Application boundary

Redundant IM 153-2 modules must have matching order numbers and matching product or firmware versions. Review both partners during replacement and test the switchover and channel behavior under the approved process conditions. A healthy individual interface does not prove the redundant system is ready.

The 6ES7153-2BA82-0XB0 execution is the outdoor IM 153-2 HF. Station capacity and functions depend on the configured modules, firmware and selected redundancy or timestamp arrangement.

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02 Technical data and engineering limits

Fieldbus	PROFIBUS DP
Station role	DP slave
Maximum attached modules	12 for BAx2 arrangement
High-accuracy timestamp limit	8 input modules at 1 ms accuracy
Outdoor operating range	-25 to +60 °C with suitable station components
Redundant interface count	2 identical compatible IM modules
24 V supply current, product version 01	600 mA maximum
24 V supply current, product version 02	620 mA maximum

Additional interface data

Redundant partner requirement	Same order number and same product/firmware version
Outdoor bus assembly	Appropriate BM IM/IM and painted active I/O bus modules
Outdoor I/O selection	Suitable SIPLUS/expanded-environment modules
Module-change function	Requires active backplane and configured station support
Timestamp planning	Module count and synchronization must be reviewed together
Station acceptance	DP communication plus individual I/O and fault-response tests

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03 Application map and integration boundaries

01 Outdoor distributed I/O

Connect suitably qualified ET 200M components to PROFIBUS DP.

02 Redundant station interface

Use matching partners in the engineered redundant arrangement.

03 Timestamped event acquisition

Collect events within the configured synchronization and module limits.

04 Serviceable I/O architecture

Coordinate a correctly configured active-backplane station.

Environment boundary

Expanded conditions require compatible interface, bus and I/O hardware; they do not transfer automatically from the interface to the station.

Version-sensitive power

Use the supply-current requirement for the actual product version and include all attached station loads.

Redundancy acceptance

Match both partners and test the configured switchover, diagnostics and channel response.

Configuration scope: Retain the outdoor execution and verify both redundant partners, firmware, bus modules and enabled station functions.

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04 Technical questions that affect operation

Can 6ES7153-2BA82-0XB0 make standard attached I/O suitable for outdoor conditions?

No. Each bus and I/O component must suit the expanded environmental conditions. Qualify the complete station arrangement.

Why may the usable module count be lower with 6ES7153-2BA82-0XB0 timestamping enabled?

The high-accuracy 1 ms timestamp arrangement is limited to eight input modules. Review function-specific limits before using the general twelve-module capacity.

Can a different firmware partner be mixed with 6ES7153-2BA82-0XB0 in a redundant station?

Redundant interfaces must meet the identical-order and product/firmware-version requirement. Review both partners before replacement.

Why should product version be checked when budgeting supply for 6ES7153-2BA82-0XB0?

The maximum supply-current figure differs between product versions 01 and 02. Size the station supply using the actual hardware execution.

What proves redundancy after a replacement involving 6ES7153-2BA82-0XB0?

Check partner compatibility, station diagnostics and a controlled switchover with the required I/O behavior. A normal LED on one module is insufficient.

What must be retained before changing the DP address of 6ES7153-2BA82-0XB0?

Record the controller configuration, station identity and network address plan. Update the corresponding master project so that the physical and configured station agree.

Does active-backplane support on 6ES7153-2BA82-0XB0 permit unrestricted online maintenance?

No. The attached module, configuration and process response must permit the specific operation. Follow the approved station maintenance procedure.

How should a station that communicates but has wrong channel values with 6ES7153-2BA82-0XB0 be investigated?

Compare configured module order, parameterization and process-data mapping with the physical station, then test the affected channels individually.

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05 Selection, service planning and related equipment

Match the installed arrangement

Match the complete Siemens 6ES7153-2BA82-0XB0 marking and installed configuration. Confirm complete IM reference, product version, firmware and partner identity where redundant.

Support and migration

The current production and manufacturer-support stage for this exact execution is unconfirmed. Retain the outdoor execution and verify both redundant partners, firmware, bus modules and enabled station functions.

Equipment boundary

Confirm the interface module, bus connector and bus module only when itemized. Companion hardware and accessories are included only when itemized; the function of the complete installed arrangement depends on the correct combination.

Engineering review before intervention

Capture station and partner identity	Record the DP address, I/O order, enabled functions and both interface versions where redundant. Identify the required process response before separating a partner or fieldbus connection.
Qualify the outdoor assembly	Inspect interface, active bus, rail and I/O suitability for the environment. Review supply capacity against the actual product version and attached loads. Do not assume standard modules inherit the interface rating.

Related equipment navigation

Siemens 6ES7511-1AK02-0AB0

Siemens 6ES7405-0KA02-0AA0

Siemens 6ES7214-1BG40-0XB0

Related references support separate application assessment and do not imply replacement compatibility. Technical basis: Siemens ET 200M Operating Instructions, EWA-4NEB780600602-08 and IM 153-2 HF Product Information.