# Siemens 16180-500 PSMBXNAN

## Modulbus Expander

Legacy Siemens Moore Modulbus Expander identified by the combined 16180-500 PSMBXNAN marking for APACS+ expansion service.

## Job objective

Replace, install or verify the exact module without changing unrelated wiring, configuration, dimensions, weight or other stored product data.

## Safe-work boundary

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|---|---|
| **Identify**<br>Match the complete model and every suffix or secondary code. | **Isolate**<br>Apply the plant-approved electrical and process isolation procedure. |
| **Preserve**<br>Back up configuration and photograph all connections. | **Control**<br>Use ESD protection and revision-controlled documentation. |

## Required evidence before work

Nameplate photo; slot/rack record; connector map; project backup where applicable; fault history; approved acceptance procedure.

# Readiness checklist

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|---|---|
| Exact identity | Siemens 16180-500 PSMBXNAN matches the work order and physical unit |
| System position | Rack, slot and functional assignment are recorded |
| Configuration | Parameters, firmware or project data are backed up when applicable |
| Connections | Every cable, terminal, jumper and shield is labeled |
| Condition | Connector, board and packaging condition are inspected |
| Test plan | Expected states and acceptance evidence are agreed |

## Interface preparation

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|---|---|
| Controller-side Modulbus | Upstream system-bus connection |
| Expansion-side bus | Connection to the documented downstream segment |
| Rack power | Verify supply from the installed assembly |
| Status/service points | Interpret using the exact MBX documentation |

03 / INSTALLATION SEQUENCE

# Controlled replacement workflow

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|---|---|
| 1 | Confirm isolation and absence of hazardous energy |
| 2 | Compare old and replacement identities and revisions |
| 3 | Photograph and label all connections |
| 4 | Remove the existing module using ESD-safe handling |
| 5 | Inspect slot, connector, grounding and cooling path |
| 6 | Install the exact replacement without forcing connectors |
| 7 | Restore cables, jumpers and settings from the controlled record |
| 8 | Perform a final visual and continuity check before energization |

**STOP POINT**

Do not energize if the model, slot, connector orientation, grounding, jumper state or documented system assignment is unresolved.

# Staged return to service

| Stage | Action | Acceptance |
|---|---|---|
| Stage 1 | Visual inspection and isolation release | Expected controlled result |
| Stage 2 | Apply control power under observation | Expected controlled result |
| Stage 3 | Confirm module recognition or status | Expected controlled result |
| Stage 4 | Verify communication and affected signal paths | Expected controlled result |
| Stage 5 | Exercise the documented function | Expected controlled result |
| Stage 6 | Archive measured results and as-left configuration | Expected controlled result |

## Product-specific acceptance focus

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|---|---|
| **1**<br>Label upstream and downstream connections before removal. | **2**<br>Do not apply unverified data-rate or distance values. |
| **3**<br>Check shielding, grounding and connector condition. | **4**<br>Verify bus communication and all downstream I/O after replacement. |

# Fault isolation and final record

| | |
|---|---|
| 1 | Unexpected state: stop and capture evidence |
| 2 | Recheck identity, power, slot and connectors |
| 3 | Compare configuration and revision records |
| 4 | Test surrounding system before condemning the module |
| 5 | Restore a safe state and document the outcome |

## Apter Power handover record

| | |
|---|---|
| **Model identity** | Keep the complete Siemens model code and every suffix in purchasing, installation and acceptance records. |
| **Verification boundary** | Confirm the physical nameplate, installed position and revision-controlled project documents before field work. |
| **Apter Power support** | Use the contact details and Apter Power website links in this document for product and sourcing support. |

| Related Apter Power references | Scope note |
|---|---|
| Siemens 39SDM024DCCBN 16101-174/8 | Portfolio reference only; verify compatibility independently. |
| Siemens 16101-174/10 | Portfolio reference only; verify compatibility independently. |

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