

MANUFACTURER-SOURCE TECHNICAL REFERENCE

# ABB IMASM03

## Product Reference

ABB IMASM03 IMASM03 RTD Analog Slave Module

### DOCUMENT SCOPE

Independent Apter Power manual compiled only from the cited ABB manufacturer sources. No product photograph is included.

|                           |                                                                   |
|---------------------------|-------------------------------------------------------------------|
| Product / lookup identity | ABB IMASM03                                                       |
| Reference number          | IMASM03                                                           |
| Document basis            | Published ABB product records, PDFs, and manuals listed on page 3 |



### Product page

<https://www.apterpower.com/ABB/imasm03>  
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## Product role and published parameters

### WHAT IT IS, WHAT IT DOES, AND WHERE IT FITS

ABB IMASM03 is an INFI 90 analog slave input module for eight RTD measurements. The documented input arrangement accepts up to eight three-wire 100-ohm RTDs through NIAI03 termination-module wiring; NTAI04 is documented as an alternative RTD termination-unit arrangement. System context: ABB IMASM03 IMASM03 RTD Analog Slave Module.

| Published field              | Manufacturer-published value or verified identity note   |
|------------------------------|----------------------------------------------------------|
| Product type                 | RTD analog slave input module                            |
| Input channels               | 8                                                        |
| Documented sensor wiring     | Three-wire RTD                                           |
| Documented nominal RTD       | 100 ohm                                                  |
| Analog master                | IMAMM03                                                  |
| Termination module           | NIAI03 for up to eight three-wire RTD inputs             |
| Alternative termination unit | NTAI04 in the documented IMASM03/IMASM04 RTD arrangement |

### System function and signal path

|    |                                                                                                                                                                                      |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 01 | System Inputs: Up to eight three-wire 100-ohm RTD resistance signals through the verified termination arrangement.                                                                   |
| 02 | Processing: Acquires RTD channel signals as the slave I/O member; engineering-unit conversion and strategy processing are performed by the IMAMM03 master/configured control system. |
| 03 | Outputs: Channel data and status to the IMAMM03 over the slave expander bus; no field analog outputs are documented for IMASM03.                                                     |
| 04 | Communications: Dedicated slave expander bus to the IMAMM03 analog master.                                                                                                           |

## Applications, answers, and official sources

**1** Process temperature acquisition: Collects eight RTD temperature points for the IMAMM03 analog strategy.

**2** Turbine and auxiliary temperature monitoring: Interfaces approved three-wire RTDs used on plant auxiliaries and process equipment.

**3** Utility and power-plant temperature groups: Provides grouped RTD inputs in installed INFI 90 analog I/O cabinets.

**4** Multi-point equipment thermal monitoring: Feeds eight resistance-temperature channels to configured alarms, trends, and operator displays through the master.

### Frequently asked questions

|                                                |                                                                                                      |
|------------------------------------------------|------------------------------------------------------------------------------------------------------|
| What is ABB IMASM03?                           | It is an eight-channel RTD analog slave input module in the INFI 90 analog master/slave arrangement. |
| How many inputs does it have?                  | Eight analog inputs.                                                                                 |
| Which sensor type is documented?               | Three-wire 100-ohm RTDs.                                                                             |
| Which master module does it use?               | IMAMM03.                                                                                             |
| Which termination module is documented?        | NIAI03 accepts up to eight three-wire RTD inputs.                                                    |
| Is an alternative termination unit documented? | Yes. NTAI04 appears in the documented IMASM03/IMASM04 RTD arrangement.                               |

### Official ABB sources

|                                                            |                                                                                                                                                                                                                           |
|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ABB Industrial Automation Spare Parts – Treasure Hunt 2020 | <a href="https://library.e.abb.com/public/6250fe4dc0404c47b0f5247950fadbe7/Treasure_Hunt_2020.pdf">https://library.e.abb.com/public/6250fe4dc0404c47b0f5247950fadbe7/Treasure_Hunt_2020.pdf</a>                           |
| ABB Spring Savings Event 2020                              | <a href="https://library.e.abb.com/public/fbf2689185024ec689e70ebb6a3637d4/Spring%20Savings%20Event%202020.pdf">https://library.e.abb.com/public/fbf2689185024ec689e70ebb6a3637d4/Spring%20Savings%20Event%202020.pdf</a> |