

INDUSTRIAL AUTOMATION PRODUCT

51401583-200

Network Gateway Interface Assembly

Honeywell 51401583-200 is a Network Gateway Interface assembly for a TDC 3000 five/ten-slot node. It provides the gateway hardware interface and its local status indications.

IDENTITY	VERIFIED VALUE
Manufacturer	Honeywell
System family	TDC 3000 five/ten-slot node
Part number	51401583-200
Country	USA
HS code	8537101190

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Technical Specifications

Technical values below are limited to the named Honeywell product record.

PARAMETER	VALUE
Board type	NGI
Assembly function	Network Gateway Interface
Honeywell part number	51401583-200
Host module	Five- or Ten-Slot Module
TDC software release	TDC 3000X Release 500
Network interface	Plant Information Network (PIN)
Companion I/O board	NGIO
Controller processors	HPK2; K2LCN; K4LCN
Front indicator	SELF TST/ERR
Module-test indicator	PASS MOD TEST; green
Bus-error indicator	BUS TRAN ERR
Transmit indicator	TX; yellow
Test-jumper positions	TEST; NORMAL
Network-operation jumper	NORMAL
Primary NGI position in upgraded NG	Front slot 3
Optional redundant-cable NGI position	Front slot 4
Host node network	Local Control Network (LCN)
Equipment mounting	19-inch rack-mount cabinet or console bay

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System Role and Architecture

Honeywell 51401583-200 is a Network Gateway Interface assembly for a TDC 3000 five/ten-slot node. It provides the gateway hardware interface and its local status indications.

FUNCTION 1

Interfaces a TDC 3000X Network Gateway with the Plant Information Network

FUNCTION 2

Reports self-test, module-test, bus-transfer and transmit states

FUNCTION 3

Works with the rear NGIO board and the installed gateway processor

FUNCTION 4

Keeps the front TEST/NORMAL jumper in NORMAL during network operation

Matched system components

- Five/ten-slot cardfile
- NGIO companion I/O board
- Plant Information Network cabling
- HPK2, K2LCN or K4LCN processor

NETWORK GATEWAY BOARD ARRANGEMENT

INSTALLATION ELEMENT	DOCUMENTED VALUE
Front functional board	NGI 51401583-200
Rear companion board	NGIO I/O board
Primary upgraded-NG position	Front slot 3
Optional redundant-cable position	Front slot 4
Gateway processor	HPK2, K2LCN or K4LCN
Host node network	Local Control Network (LCN)
External gateway network	Plant Information Network (PIN)

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Applications and Engineering Context

Plant Information Network gateway service

Interfaces a TDC 3000X Network Gateway with the Plant Information Network

TDC 3000X network-node restoration

Reports self-test, module-test, bus-transfer and transmit states

NGI indicator-based fault isolation

Works with the rear NGIO board and the installed gateway processor

Redundant-cable Network Gateway maintenance

Keeps the front TEST/NORMAL jumper in NORMAL during network operation

TECHNICAL NOTE

Remove module power before board handling, verify the NGIO and processor arrangement, keep the TEST/NORMAL jumper in NORMAL, then confirm self-test, module-test and PIN transmit states after installation.

NGI INDICATOR AND NETWORK EVIDENCE

CHECK	HONEYWELL SERVICE CONDITION
SELF TST/ERR	Red indicator out after self-test
PASS MOD TEST	Green indicator on after module test
BUS TRAN ERR	Investigate NGI / processor bus path if lit
TX	Yellow indicator shows PIN transmit activity
No TX activity	Check PIN cables and connected interfaces
TEST/NORMAL jumper	NORMAL during network operation
NGIO check	Companion board fully installed before diagnosis

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Engineering Precautions

1

Verify the complete 51401583-200 marking and its assigned TDC 3000 five/ten-slot node position before work.

2

Isolate the energy associated with Five/ten-slot cardfile before disconnecting 51401583-200.

3

Protect the 51401583-200 connectors and electronic assembly using approved ESD controls.

4

Record the as-found NGIO companion I/O board connections and configured assignment before replacement.

5

Confirm Plant Information Network cabling matches the approved installation record for 51401583-200.

6

Restore 51401583-200 under controlled conditions and review its model-specific diagnostics.

7

Complete a documented functional test for plant information network gateway service before release.

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
51401583-100	TDC 3000X Enhanced Process Network Interface	Open product page
K4LCN-8 51401551-801	TDC 3000X LCN node processor	Open product page
51305896-100	TDC 3000 NIM modem paddle board	Open product page

MANUFACTURER SOURCE RECORD

Honeywell Five/Ten-Slot Module Service

LC13-500, Release 500, Revision 01

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