

3300/45-02-01-02-00

Dual Differential Expansion Monitor

INSTALLATION, INTERFACE AND VALIDATION WORKBOOK

Bently Nevada 3300/45-02-01-02-00 is a dual differential expansion monitor for the 3300 monitoring system. It combines paired proximity-transducer measurements to supervise differential expansion at two machine locations.

STEP	GATE	ENGINEERING PURPOSE
01	IDENTIFY	Confirm article, host and hardware
02	ISOLATE	Secure power and stored energy
03	CONNECT	Restore documented interfaces
04	VALIDATE	Prove diagnostics and function

WORKBOOK PURPOSE

Field-ready identity, isolation, connection, commissioning and closeout records for this exact Bently Nevada article.

APTER POWER SALES TEAM

WHATSAPP / PHONE +86 180 3023 5313
EMAIL sales13@apterpower.com
WEBSITE www.apterpower.com



3300/45-02-01-02-00

Installation Readiness Gate

Complete the identity, host-system and isolation checks before disturbing the installed hardware.

- 1

Confirm 3300/45-02-01-02-00 and the recorded 3300 rack position.
- 2

Place the machine and associated trip logic in the approved maintenance state.
- 3

Record all four transducer inputs and their two differential channel pairs.
- 4

Capture zero positions, alert/danger settings and recorder scaling before removal.

Pre-Work Evidence

EVIDENCE ITEM	RECORDED VALUE
Complete article marking	3300/45-02-01-02-00
Host / carrier	Bently Nevada 3300 Monitoring System
Primary system role	Calculates differential expansion from paired proximity inputs
Acceptance boundary	Apply controlled paired inputs and prove both differential alarms before release.
Source record	3300/45 Dual Differential Expansion Monitor Datasheet

WORK AUTHORIZATION RECORD

Work order: _____

Drawing / revision: _____

Checked by: _____

Date: _____

Isolation and Access Register

CONTROL POINT	ENGINEER RECORD
Incoming supply	Isolated / proved
Stored energy	Discharged / proved
Field connections	Identified / protected
ESD control	Established / recorded

Pre-Work Documentation

DOCUMENT	ENGINEER RECORD
Connection photograph	Reference / file
Configuration backup	Reference / revision
Diagnostic baseline	Reference / result

Connection and Installation Sequence

INSTALLATION PRINCIPLE

Install 3300/45-02-01-02-00 only in the documented Bently Nevada 3300 Monitoring System arrangement and record the exact connection and configuration before removal. Restore the approved settings, then verify diagnostics and functional response before release.

- 1 Inspect rack connector, grounding and input cable shields.
- 2 Restore the exact channel pairing and configured transducer scale factors.
- 3 Verify monitor OK status, zero and each recorder or display output.
- 4 Apply controlled paired inputs and prove both differential alarms before release.

Connection Record

CONNECTION GROUP	AS-FOUND / AS-LEFT RECORD	STATUS
Power / field connection	Reference / terminal	Checked
Signal / interface	Reference / connector	Checked
Ground / shield	Reference / point	Checked
Accessory / carrier	Reference / part	Checked

MODEL-SPECIFIC RELEASE LIMIT

Confirm the complete 3300/45-02-01-02-00 marking, installed host, hardware execution, terminals or connectors, wiring, grounding, configuration, accessories and controlled commissioning results.

Interface Acceptance Criteria

ACCEPTANCE ITEM	REQUIRED EVIDENCE
Identity	3300/45-02-01-02-00
Host match	Bently Nevada 3300 Monitoring System
Connection proof	Restore the exact channel pairing and configured transducer scale factors.
Configuration proof	Verify monitor OK status, zero and each recorder or display output.

Commissioning and Acceptance Record

Record each controlled verification step before the equipment returns to automatic operation.

NO.	ACCEPTANCE CHECK	RESULT	RECORD
1	Article and host identity	PASS / FAIL	Initial / date
2	Mechanical installation	PASS / FAIL	Initial / date
3	Power and field wiring	PASS / FAIL	Initial / date
4	Grounding and shielding	PASS / FAIL	Initial / date
5	Configuration restoration	PASS / FAIL	Initial / date
6	Signal or power-path response	PASS / FAIL	Initial / date
7	Diagnostics and alarms	PASS / FAIL	Initial / date
8	Final functional release	PASS / FAIL	Initial / date

Engineering Notes

RECORD AREA	ENGINEER ENTRY
As-found condition	
Corrective action	
As-left configuration	
Outstanding restriction	
Release authorization	

CONTROLLED COMMISSIONING

Apply controlled paired inputs and prove both differential alarms before release.

Diagnostics and Release Log

EVENT	ENGINEERING RECORD
Initial energization	Result / observation
Interface or signal response	Result / observation
Alarm and diagnostic review	Result / observation
Functional release	Name / date

Maintenance Verification and Closeout

Steam-turbine differential expansion

Supervises rotor-to-casing growth using paired axial probe locations.

Compressor case-expansion monitoring

Tracks relative axial movement across documented machine reference points.

Large rotating-train startup

Provides differential expansion indication during controlled thermal growth.

3300 monitor replacement

Restores the configured two-channel monitor while retaining transducer pairing.

Related Engineering Pages

MODEL	ENGINEERING ROLE	APTER POWER PAGE
330106-05-30-10-02-05	reverse-mount probe	View 330106-05-30-10-02-05 page
330130-080-00-00	extension cable	View 330130-080-00-00 page
330180-50-00	Proximity Sensor	View 330180-50-00 page
3500/25	Keyphasor module	View 3500/25 page
3500/40M	proximity monitor	View 3500/40M page
3500/42M	seismic monitor	View 3500/42M page
3500/45	position monitor	View 3500/45 page
330101-00-08-05-02-05	8 mm probe	View 330101-00-08-05-02-05 page

MANUFACTURER SOURCE RECORD

3300/45 Dual Differential Expansion Monitor Datasheet
Bently Nevada publication 141507

APTER POWER SALES TEAM

WHATSAPP / PHONE +86 180 3023 5313
EMAIL sales13@apterpower.com
WEBSITE www.apterpower.com


3300/45-02-01-02-00