

991-25-70-01-01

991 two-wire thrust transmitter

Axial displacement converted to a 4–20 mA current-loop signal

PRODUCT SNAPSHOT

BRAND

Bently Nevada

FAMILY

991 thrust transmitter system

PART

991-25-70-01-01

ORIGIN / HS

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PRODUCT OVERVIEW

Axial displacement converted to a 4–20 mA current-loop signal

1

Accepts a matched 3300 NSv transducer signal

2

Provides a loop-powered 4–20 mA displacement output

3

Supplies a buffered BNC Prox Out for diagnostics

4

Adds CSA Division 2 approval to the 25-0-25 mil configuration

SYSTEM COMPONENTS

3300 NSv probe

matched extension cable and Proximity Sensor

12 to 35 VDC current loop

PLC or DCS analog input

TECHNICAL NOTE

Confirm the complete 991-25-70-01-01 marking, MOD identity where present, matched 3300 NSv system length, mounting hardware, loop polarity and approved axial range; set zero and span only against the documented mechanical reference.

TECHNICAL DATA

PARAMETER	VALUE
Complete model	991-25-70-01-01
Full-scale range	25-0-25 mils
System length	7.0 m
Mounting	DIN-rail clip
Agency approval	CSA Division 2
Transmitter type	2-wire, loop powered
Supply voltage	+12 to +35 V DC
Process output	4 to 20 mA
Input system	3300 NSv proximity transducer system

PARAMETER	VALUE
Loop accuracy	+/-1.5%
Buffered output	BNC Prox Out
Buffered output impedance	10 kohm for 10 Mohm load
Not OK current	Below 3.6 mA
Not OK response	Within 100 us
Recovery time	Within 0.1 s
Humidity	Up to 100%, condensing
Adjustments	Zero and span
Power-up inhibit	Provided

ENGINEERING NOTE

Confirm the complete 991-25-70-01-01 marking, MOD identity where present, matched 3300 NSv system length, mounting hardware, loop polarity and approved axial range; set zero and span only against the documented mechanical reference.

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
Bently Nevada 330881 16 10 100 03 02	Related Bently Nevada machinery-monitoring product	View Bently Nevada 330881 16 10 100 03 02 page
Bently Nevada 330171 00 08 10 01 05	Related Bently Nevada machinery-monitoring product	View Bently Nevada 330171 00 08 10 01 05 page
Bently Nevada 330172 00 08 10 01 05	Related Bently Nevada machinery-monitoring product	View Bently Nevada 330172 00 08 10 01 05 page
Bently Nevada 330780 90 05	Related Bently Nevada machinery-monitoring product	View Bently Nevada 330780 90 05 page
Bently Nevada 330130 085 10 00	Related Bently Nevada machinery-monitoring product	View Bently Nevada 330130 085 10 00 page
Bently Nevada 330103 00 16 05 11 05	Related Bently Nevada machinery-monitoring product	View Bently Nevada 330103 00 16 05 11 05 page
Bently Nevada 330103 00 16 05 02 05	Related Bently Nevada machinery-monitoring product	View Bently Nevada 330103 00 16 05 02 05 page
Bently Nevada 330101 02 60 05 01 05	Related Bently Nevada machinery-monitoring product	View Bently Nevada 330101 02 60 05 01 05 page

APPLICATIONS & PRECAUTIONS

COMMON APPLICATIONS

Turbine thrust-position monitoring

Accepts a matched 3300 NSv transducer signal

Compressor axial-displacement trending

Provides a loop-powered 4–20 mA displacement output

DCS thrust-alarm integration

Supplies a buffered BNC Prox Out for diagnostics

991 transmitter replacement

Adds CSA Division 2 approval to the 25-0-25 mil configuration

PRODUCT PRECAUTIONS

- 1 Verify the complete 991-25-70-01-01 marking and its assigned 991 thrust transmitter system position before work.
- 2 Place the connected turbine thrust-position monitoring process in the approved maintenance state.
- 3 Isolate applicable power and axial displacement converted to a 4–20 ma current-loop signal field energy before disconnecting conductors.
- 4 Record connector, conductor, address, firmware and software identities before removal.
- 5 Use ESD controls and protect keyed interfaces, exposed contacts and electronic assemblies.
- 6 Confirm the installed 3300 NSv probe and matched extension cable and Proximity Sensor against the approved project.
- 7 Restore power in a controlled sequence and review device, network and host diagnostics.
- 8 Prove the intended compressor axial-displacement trending function and retain the final test result.

ENGINEER FAQ

Q1 Does 991-25-70-01-01 match 3300 NSv probe in a Turbine thrust-position monitoring installation?

Verify the complete 991-25-70-01-01 marking, the documented 991 thrust transmitter system position and the installed 3300 NSv probe before fitting the assembly.

Q2 How should 991-25-70-01-01 be wired when it must accept a matched 3300 nsv transducer signal?

Isolate the circuit, identify every terminal and reproduce the approved polarity, shield and channel assignment for 991-25-70-01-01; then continuity-test the affected path.

Q3 Which 991 thrust transmitter system records should be captured before removing 991-25-70-01-01?

Record the as-found wiring, installed position, active configuration and diagnostic state associated with 991-25-70-01-01 before disconnection.

Q4 What controlled test confirms that 991-25-70-01-01 can provide a loop-powered 4–20 ma displacement output?

Apply the approved field or simulated stimulus, observe the 991 thrust transmitter system indication and confirm the intended response without bypassing the normal interlocks.

Q5 Which matched extension cable and Proximito Sensor condition should be checked when 991-25-70-01-01 reports an abnormal state?

Check the matched extension cable and Proximito Sensor supply, seating and connection first, then compare channel diagnostics with the recorded 991-25-70-01-01 baseline.

Q6 Can 991-25-70-01-01 be moved directly into Compressor axial-displacement trending without validating PLC or DCS analog input?

No. Confirm the PLC or DCS analog input, revision, connection scheme and 991 thrust transmitter system configuration before transferring 991-25-70-01-01 to that duty.

Q7 What maintenance evidence is required after 991-25-70-01-01 is used for DCS thrust-alarm integration?

Retain the nameplate record, corrective action, final diagnostics and a controlled dcs thrust-alarm integration functional-test result for 991-25-70-01-01.

Q8 How should 991-25-70-01-01 be returned to service in 991 transmitter replacement?

Restore power under control, verify supplies a buffered bnc prox out for diagnostics, exercise the intended signal path and release 991-25-70-01-01 only after the 991 thrust transmitter system remains in its approved operating state.

SOURCE Bently Nevada 991 Thrust Transmitter Datasheet | 141618 Rev. R

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