

INDUSTRIAL AUTOMATION PRODUCT

76683-90

35 mm Proximitior Sensor

The -90 option requires a 9 m total probe-lead-plus-extension-cable electrical length and converts probe gap into a proportional dc output.

IDENTITY	VERIFIED VALUE
Manufacturer	Bently Nevada
System family	7200 Series 35 mm Proximity Transducer System
Part number	76683-90

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Technical Specifications

Technical values below are limited to the named Bently Nevada product record.

PARAMETER	TECHNICAL VALUE
Complete model	76683-90
Manufacturer	Bently Nevada
Product family	7200 Series 35 mm Proximity Transducer System
Catalog option	76683-90
Required electrical length	9 m total probe lead plus extension cable
Calibration range	500 mils (12.7 mm), approximately 50 to 550 mils
Average scale factor	20.00 mV/mil (0.787 V/mm) nominal system value
Supply voltage	-18 Vdc to -24 Vdc
Current draw	24 mA maximum with 10 kohm load
Output resistance	50 ohms
Output load	Calibrated into a 10 kohm resistive load
Frequency response	0 to 600,000 rpm, +0/-5%
Target calibration	AISI E4140 steel
System use	Shaft alignment, thrust position and differential expansion
Proximitior housing	A380 aluminum; encapsulated printed-circuit assembly



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System Role and Architecture

The -90 option requires a 9 m total probe-lead-plus-extension-cable electrical length and converts probe gap into a proportional dc output.

FUNCTION 1

Conditions the 35 mm eddy-current probe signal

FUNCTION 2

Requires the documented 9 m electrical cable length

FUNCTION 3

Provides proportional dc output for position measurements

FUNCTION 4

Supports controlled calibration and fault isolation

Matched system components

- 7200 Series 35 mm Proximity Transducer System
- documented companion probe or cable
- approved field wiring and shielding
- monitoring-channel configuration record

SYSTEM INTEGRATION RECORD

INTEGRATION ITEM	DOCUMENTED ROLE
Installed host / carrier	7200 Series 35 mm Proximity Transducer System
Companion hardware	documented companion probe or cable
Field connection	approved field wiring and shielding
Primary system function	Conditions the 35 mm eddy-current probe signal
Controlled acceptance duty	Thrust position



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Applications and Engineering Context

Thrust position

Conditions the 35 mm eddy-current probe signal

Differential expansion

Requires the documented 9 m electrical cable length

Shaft alignment

Provides proportional dc output for position measurements

Controlled replacement

Supports controlled calibration and fault isolation

TECHNICAL NOTE

Use only with the documented 35 mm probe arrangement and a 9 m total electrical cable length; preserve single-point shield grounding and verify calibration against the installed target.

MODEL-SPECIFIC ACCEPTANCE EVIDENCE

CHECK	ACCEPTANCE CONDITION
Identity	76683-90 / 76683-90 recorded
Physical interface	7200 Series 35 mm Proximity Transducer System
Companion check	documented companion probe or cable
Functional proof	Conditions the 35 mm eddy-current probe signal
Application test	Thrust position



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Engineering Precautions

1

Verify the complete 76683-90 nameplate and installed system position before work.

2

Place the connected machine and monitoring channel in the approved maintenance state before handling 76683-90.

3

Isolate the documented supply and field wiring before disconnecting 76683-90.

4

Record every terminal, cable, shield and companion component associated with 76683-90.

5

Protect the coaxial connection and prevent contamination or mechanical damage during replacement of 76683-90.

RELATED BENTLY NEVADA PRODUCTS ON APTER POWER

BRAND + MODEL	RELATED PRODUCT	APTER POWER LINK
Bently Nevada 330881-16-00-307-06-02	Bently Nevada monitoring product	Open Bently Nevada page
Bently Nevada 330881-16-00-200-06-02	Bently Nevada monitoring product	Open Bently Nevada page
Bently Nevada 330103-00-25-05-02-00	Bently Nevada monitoring product	Open Bently Nevada page
Bently Nevada 330106-05-30-10-02-IN	Bently Nevada monitoring product	Open Bently Nevada page
Bently Nevada 330180-90-CN	Bently Nevada monitoring product	Open Bently Nevada page
Bently Nevada 330106-05-30-10-02-00	Bently Nevada monitoring product	Open Bently Nevada page
Bently Nevada 330104-01-05-50-02-00	Bently Nevada monitoring product	Open Bently Nevada page
Bently Nevada 330910-00-24-10-01-CN	Bently Nevada monitoring product	Open Bently Nevada page

MANUFACTURER SOURCE RECORD

Bently Nevada 35 mm Proximity Transducer System 7200 Series manual

77290-01 Rev. F; user-authorized source copy

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