

Hazardous Area Approvals



For the detailed listing of country and product-specific approvals, refer to the [Approvals Quick Reference Guide \(108M1756\)](#).

For additional technical documentation, please log in to bntechsupport.com and access the Bently Nevada Media Library.

cNRTLus

3300 XL Proximity Sensor

ia When installed with intrinsically safe zener barriers per drawing 141092 or when installed with galvanic isolators.	Class I, Zone 0: AEx/Ex ia IIC T4/T5 Ga; Class I, Groups A, B, C, and D, Class II, Groups E, F and G, Class III; T5 @ Ta = -55°C to + 40°C. T4 @ Ta = -55°C to + 80°C.
nA, ec When installed with non-incendive circuit connected per drawing 140979.	Class I, Zone 2: AEx/Ex nA IIC T4/T5 Gc; Class I, Division 2, Groups A, B, C, and D; Class I, Zone 2: AEx/Ex ec IIC T4/T5 Gc; Class I, Division 2, Groups A, B, C, and D; T5 @ Ta = -55°C to + 40°C T4 @ Ta = -55°C to + 80°C

3300 XL Probe

ia When installed with intrinsically safe zener barriers per drawing 141092 or when installed with galvanic isolators.	Class I, Zone 0: AEx/Ex ia IIC T5...T1 Ga; Class I, Groups A, B, C, and D, Class II, Groups E, F, and G, Class III; (see Temperature Schedule table to follow)
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nA, ec

When installed with non-incendive circuit connected per drawing 140979.

Class I, Zone 2: AEx/Ex nA IIC T5...T1 Gc;
Class I, Division 2, Groups A, B, C, D;
Class I, Zone 2: AEx/Ex ec IIC T5...T1 Gc;
Class I, Division 2, Groups A, B, C, and D;

(see Temperature Schedule table to follow)

ATEX/IECEx

3300 XL Proximity Sensor

ia	 II 1 G Ex ia IIC T4/T5 Ga Ex ia IIIC T90C/T105C Dc For EPL Dc: T105C @ Ta = -55°C to 100°C T90C @ Ta = -55°C to +85°C <table border="1"> <tr> <td>Ui = -28V</td><td>Uo = -28V</td></tr> <tr> <td>Ii = 140mA</td><td>Io = 140mA</td></tr> <tr> <td>Pi = 0.91W</td><td>Po = 0.742W</td></tr> <tr> <td>Ci = 47nF</td><td>Co = 1.5nF</td></tr> <tr> <td>Li = 1460µH</td><td>Lo = 610µH</td></tr> </table>	Ui = -28V	Uo = -28V	Ii = 140mA	Io = 140mA	Pi = 0.91W	Po = 0.742W	Ci = 47nF	Co = 1.5nF	Li = 1460µH	Lo = 610µH
Ui = -28V	Uo = -28V										
Ii = 140mA	Io = 140mA										
Pi = 0.91W	Po = 0.742W										
Ci = 47nF	Co = 1.5nF										
Li = 1460µH	Lo = 610µH										
nA,ec	 II 3 G Ex nA IIC T4/T5 Gc Ex ec IIC T4/T5 Gc <table border="1"> <tr> <td>Ui = -28V</td><td>Ii = 140 mA</td></tr> </table> T5 @ Ta = -55°C to + 40°C T4 @ Ta = -55°C to + 80°C	Ui = -28V	Ii = 140 mA								
Ui = -28V	Ii = 140 mA										

3300 XL Probe



Probe entity parameters are met when used with BN extension cables and connected to BN Prox.

ia	 II 1 G Ex ia IIC T5...T1 Ga, (see Temperature Schedule table to follow) Ex ia IIIC T90°C ... T280°C Dc For EPL Dc: <table border="1" data-bbox="386 428 745 579"> <tr> <td>Ui = -28V</td><td>Ci = 1.5 nF</td></tr> <tr> <td>Ii = 140 mA</td><td>Li = 610 µH</td></tr> <tr> <td>Pi = 0.91 W</td><td></td></tr> </table>	Ui = -28V	Ci = 1.5 nF	Ii = 140 mA	Li = 610 µH	Pi = 0.91 W	
Ui = -28V	Ci = 1.5 nF						
Ii = 140 mA	Li = 610 µH						
Pi = 0.91 W							
nA,ec	 II 3 G Ex nA IIC T5...T1 Gc, Ex ec IIC T5...T1 Gc, (see Temperature Schedule table to follow) <table border="1" data-bbox="386 793 745 842"> <tr> <td>Ui = -28V</td><td>Ii = 140 mA</td></tr> </table>	Ui = -28V	Ii = 140 mA				
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Temperature Schedule

Temperature Classification	Ambient Temperature (Probe Only)
For EPL Ga and Gc	
T1	-55°C to +232°C
T2	-55°C to +177°C
T3	-55°C to +120°C
T4	-55°C to +80°C
T5	-55°C to +40°C
For EPL Dc	
T280°C @ Ta	-55°C to +232°C
T225°C @ Ta	-55°C to +177°C
T170°C @ Ta	-55°C to +120°C
T130°C @ Ta	-55°C to +80°C
T105°C @ Ta	-55°C to +100°C
T90°C @ Ta	-55°C to +40°C

Hazardous Area Conditions of Safe Use

cNRTLus:

ia

Install per Bently Nevada drawing 141092.

nA, ec

Install per Bently Nevada drawing 140979.

ATEX/IECEx:

ia

Install per Bently Nevada drawing 141092.

nA, ec

The Proximitor must be installed so as to provide the terminals with a degree of protection of at least IP54.

Ordering Information



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Order -00 or -01 (for multi approvals) for the A option and -00 or -000 for all other options to receive just a spare housing with Proximitor Sensor.

PROXPAC XL Proximity Transducer, English

330880-AA-BB-CCC-DD-EE

A: Probe and Approvals Option

0 0	No probe; Proximitor sensor without approvals
0 1	No probe; Proximitor sensor with Multiple Approvals
1 6	3300 XL 8 mm probe without approvals
2 8	3300 XL 8 mm probe with Multiple Approvals

B: Standoff Adapter Option (B Dimension)

	Order in increments of 0.5 in (13 mm).
	Minimum length: 1.5 in (38 mm)
	Maximum length: 7.5 in (191 mm)

Examples

0 0	No standoff adapter
1 5	1.5 in (38 mm)

C: Probe Penetration Option (C Dimension)

	For penetration lengths between 1.0 and 2.0 inches, counterbore may be required in machine case to reduce probe side view and/or rear view effects.
	Order in increments of 0.1 in (2 mm).
	Minimum length: 1.0 in (25 mm)
	Maximum length: 30 in (762 mm)

Examples

0 0 0	No probe sleeve
0 3 7	3.7 in (94 mm)
2 2 4	22.4 in (569 mm)

D: Fittings Option

	For 1/2-14 NPT fittings, order option -03 or spare 26650-01 reducers for either option -01 or -02.
0 0	No fittings; two plugs and two washers
0 1	One 3/4-14 NPT fitting, two plugs
0 2	Two 3/4-14 NPT fittings, one plug
0 3	One 3/4-14 NPT fitting, one 3/4-14 NPT to 1/2-14 NPT SST reducer and two plugs

E: Mounting Thread Option

0 0	No outer sleeve assembly
0 2	3/4-14 NPT (Required if ordering Standoff Adapter Option.)
0 5	7/8-14 UNF-2A

PROXPAC XL Proximity Transducer, Metric

330881-AA-BB-CCC-DD-EE

A: Probe and Approvals Option

0 0	No probe; Proximitor sensor without approvals
0 1	No probe; Proximitor sensor with Multiple Approvals
1 6	3300 XL 8 mm probe without approvals
2 8	3300 XL 8 mm probe with Multiple Approvals

B: Standoff Adapter Option (B Dimension)

	Order in increments of 10 mm. Minimum length: 40 mm Maximum length: 200 mm
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Examples

0 0	No standoff adapter
0 4	40 mm
2 0	200 mm

C: Probe Penetration Option (C Dimension)

	For penetration lengths between 25 and 50 mm, counter bore may be required in machine case to reduce probe side view and/or rear view effects. Order in increments of 1 mm. Minimum length: 25 mm Maximum length: 760 mm
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Examples

0 0 0	No probe sleeve
0 5 0	50 mm

7 6 0	760 mm
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D: Fittings Option (supplied as a kit)

0 0	No fittings; two plugs and two washers
0 1	One M25 fitting, two plugs
0 2	Two M25 fittings, one plug
0 3	One M20 fitting, two plugs
0 5	One PG21 to PG11 reducer, two plugs
0 6	One 3/4-14 NPT fitting, one 3/4-14 NPT to 1/2-14 NPT SST reducer and two plugs
0 7	One PG21 x M20 fitting, two plugs

Two PG21 x M20 fittings, one plug

0 8



Conduit fittings are necessary when hardline conduit or metal piping is brought into the housing. If using flexible conduit, you should order with integral 3/4-14 NPT fittings so that you do not require additional conduit fittings with the housing. If using flexible conduit, order the D = 0 0 option.

E: Mounting Thread Option

0 0	No outer sleeve assembly
0 1	M24 X 3
0 2	3/4-14 NPT (required if ordering Standoff Adapter Option)

Accessories

159484	Performance Specification – 3300 XL Proximity Transducer System
178761	Operation manual
178850-00	Upgrade Kit, Non-approved (Includes housing lid, 1-metre Proximity sensor, and support table)
178850-05	Upgrade Kit, Multi-Approvals (Includes housing lid, 1-metre Proximity sensor, and support table)
178644-01	Proximity sensor support table
330180-12-00	Spare 3300 XL Proximity sensor, non-approved
330180-12-05	Spare 3300 XL Proximity sensor, Multiple Approvals
330105-02-12-10-02-00	Spare 3300 XL 8 mm probe, English, non-approved
330105-02-12-10-02-05	Spare 3300 XL 8 mm probe, English, approved
330106-05-30-10-02-00	Spare 3300 XL 8 mm probe, metric, non-approved
330106-05-30-10-02-05	Spare 3300 XL 8 mm probe, metric, approved
02120015	Bulk Field Wire 1.0 mm ² (18 AWG), 3-conductor, twisted shielded cable with drain wire. Specify length in feet.
37948-01	Probe Support / Oil Sleeve Provides seal along probe sleeve. May be used as a probe sleeve support in certain installations.

English Probe Sleeve (Spare)

108883 – AAA

This is the measured probe sleeve length. Order in increments of 0.1 in (3 mm). Note that the individual probe sleeve length **does not** include the distance from the end of the sleeve to the probe tip or the gap from the probe tip to the target material. If only the part number of the original housing is known and the sleeve cannot be measured, use the following formula to determine the sleeve length:

A: **Standoff Adapter Option** from original housing (**330800** option B) + Probe penetration option from original housing (330800 option C) + 025.

Example: Original part number is 330800-16-15-035-03-02. A option for replacement sleeve is (015 + 035 + 025) = 075.

Minimum Probe Sleeve Length:
3.5 in (89 mm) = 035

Maximum Probe Sleeve Length:
32.5 in (826 mm) = 325

Metric Probe Sleeve (Spare)

108882 – AAA

This is the measured probe sleeve length. Order in increments of 1 mm. Note that the individual probe sleeve length **does not** include the distance from the end of the sleeve to the probe tip or the gap from the probe tip to the target material. If only the part number of the original housing is known and the sleeve cannot be measured, use the following formula to determine the sleeve length: