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FM Approvals
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CERTIFICATE OF COMPLIANCE

HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

This certificate is issued for the following equipment:

CBN, CCB, CCN, & CJ Model Series. Capacitive Sensors.

IS / I,II,III / 1 / ABCD / T6 Ta = 60 °C - 116-0165 Entity

I / 0 / AEx ia IIC / T6 Ta = 60 °C - 116-0165 Entity

NI / I / 2 / ABCD / T5 Ta = 60 °C

Model	Ui (V)	Ii (mA)	Pi (mW)	Ci (nF)	Li (µH)
CBN2-F46-Na	16	25	34	45	0
CBN5-F46-Na	16	25	34	45	0
CBN5-F46A-Na	16	25	34	45	0
CCB10-30GMa-Na	16	25	34	155	0
CCN2-F46A-Na	15	25	34	45	0
CCN10-F46A-Na	15	25	34	45	0
CJ 1-12GK-N-a	16	25	34	60	0
CJ 2-18GK-N-a	16	25	34	60	0
CJ 4-12GK-N-a	16	25	34	60	0
CJ 6-18GK-N-a	16	25	34	60	0
CJ 15-40-N-a	16	25	34	140	0
CJ 40-FP-Na	16	25	34	145	0

a = alphanumeric code which does not affect safety.

FJ Model Series. Inductive Sensors.

IS / I,II,III / 1 / ABCD / T6 Ta = 60 °C - 116-0165 Entity

I / 0 / AEx ia IIC / T6 Ta = 60 °C - 116-0165 Entity

NI / I / 2 / ABCD / T5 Ta = 60 °C

Model	Ui (V)	Ii (mA)	Pi (mW)	Ci (nF)	Li (µH)
FJ6-110-Na	16	25	34	150	110
FJ7-Na	16	25	34	65	220

a = alphanumeric code which does not affect safety.

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Ccoisated

NCB Model Series. Inductive Sensors.

IS / I,II,III / 1 / ABCD / T6 Ta = 60 °C - 116-0165 Entity

I / 0 / AEx ia IIC / T6 Ta = 60 °C - 116-0165 Entity

NI / I / 2 / ABCD / T5 Ta = 60 °C

Model	Ui (V)	Ii (mA)	Pi (mW)	Ci (nF)	Li (µH)
NCB1.5-aMa-N0a	16	25	34	90	100
NCB2-12GKa-N0a	16	25	34	90	100
NCB2-12GMa-N0a	16	25	34	90	100
NCB2-F1-N0a	16	25	34	90	100
NCB2-V3-N0a	16	25	34	100	100
NCB5-18GKa-N0a	16	25	34	95	100
NCB5-18GMa-N0a	16	25	34	95	100
NCB10-30GKa-N0a	16	25	34	105	100
NCB10-30GMa-N0a	16	25	34	105	100
NCB15+Ua+N0a	16	25	34	110	160
NCB40-FP-N0a	16	25	34	220	360

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NCN Model Series. Inductive Sensors.

IS / I,II,III / 1 / ABCD / T6 Ta = 60 °C - 116-0165 Entity

I / 0 / AEx ia IIC / T6 Ta = 60 °C - 116-0165 Entity

NI / I / 2 / ABCD / T5 Ta = 60 °C

Model	Ui (V)	Ii (mA)	Pi (mW)	Ci (nF)	Li (µH)
NCN3-F24a-N4a	15	25	34	100	100
NCN3-F24a-SN4a	15	25	34	100	150
NCN3-F25a-N4a	15	25	34	100	100
NCN3-F25a-N4-K	15	25	34	100	100
NCN3-F25a-N4-Y41364	15	25	34	100	100
NCN3-F25a-SN4a	15	25	34	100	150
NCN3-F31a-N4a	15	25	34	100	100
NCN3-F31K-N4(-Ya)	15	25	34	100	100
NCN3-F31K-N4a	15	25	34	100	100
NCN3-F36a-N4a	15	25	34	100	100
NCN4-12GKa-N0a	16	25	34	95	100
NCN4-12GMa-N0a	16	25	34	95	100
NCN4-M3K-N4a	15	25	34	100	100
NCN4-V3-N0a	16	25	34	100	100
NCN8-18GKa-N0a	16	25	34	95	100
NCN8-18GMa-N0a	16	25	34	95	100
NCN15-30GKa-N0a	16	25	34	110	100
NCN15-30GMa-N0a	16	25	34	110	100
NCN15-Ma-N0a	16	25	34	100	100
NCN20+Ua+N0a	16	25	34	110	160
NCN30+Ua+N0a	16	25	34	110	160
NCN40+Ua+N0a	16	25	34	120	130
NCN50-FP-N0a	16	25	34	220	360

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NJ Model Series. Inductive Sensors.

IS / I,II,III / 1 / ABCD / T6 Ta = 60 °C - 116-0165 Entity

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I / 0 / AEx ia IIC / T6 Ta = 60 °C - 116-0165 Entity
 NI / I / 2 / ABCD / T5 Ta = 60 °C

Model	Ui (V)	Ii (mA)	Pi (mW)	Ci (nF)	Li (µH)
NJ0.2-10GM-Na	16	25	34	20	50
NJ0.8-4.5-Na	16	25	34	30	50
NJ0.8-5GM-Na	16	25	34	30	50
NJ0.8-F-Na	16	25	34	30	50
NJ1.5-10GM-N-Ya	16	25	34	20	50
NJ1.5-18GM-N-Da	16	25	34	50	60
NJ1.5-6.5a-Na	16	25	34	30	50
NJ1.5-8GM-Na	16	25	34	30	50
NJ1.5-8-Na	16	25	34	20	50
NJ1.5-F-Na	16	25	34	30	50
NJ2.5-F-Na	16	25	34	40	50
NJ2-11-Na	16	25	34	45	50
NJ2-11-N-Ga	16	25	34	30	50
NJ2-11-SNa	16	25	34	50	150
NJ2-11-SN-Ga	16	25	34	50	150
NJ2-12GK-Na	16	25	34	45	50
NJ2-12GK-SNa	16	25	34	50	150
NJ2-12GM-Na	16	25	34	30	50
NJ2-14GM-Na	16	25	34	30	50
NJ2.5-14GM-Na	16	25	34	30	50
NJ2-F1-Na	16	25	34	30	50
NJ2-V3-Na	16	25	34	40	50
NJ3-V3-N-Ya	16	25	34	40	50
NJ3-18GK-S1Na	16	25	34	70	200
NJ4-12GK-Na	16	25	34	45	50
NJ4-12GK-SNa	16	25	34	70	150
NJ4-12GM-Na	16	25	34	45	50
NJ4-14GK-Na	16	25	34	45	50
NJ4-30GM-N-200a	16	25	34	70	100
NJ4-F-Na	16	25	34	150	100
NJ5-10-11-Na	16	25	34	70	100
NJ5-11-Na	16	25	34	45	50
NJ5-18GK-Na	16	25	34	70	50
NJ5-18GK-SNa	16	25	34	120	200
NJ5-18GM-Na	16	25	34	70	50
NJ5-30GK-S1Na	16	25	34	100	200
NJ6-22-Na	16	25	34	130	100
NJ6-22-SNa	16	25	34	110	150
NJ6-22-SN-Ga	16	25	34	110	150
NJ6-F-Na	16	25	34	70	100
NJ6S1+Ua+Na	16	25	34	180	150
NJ8-18GK-Na	16	25	34	70	50
NJ8-18GK-SNa	16	25	34	120	200
NJ8-18GM-Na	16	25	34	70	50
NJ10-22-Na	16	25	34	130	110
NJ10-30GKa-Na	16	25	34	140	100
NJ10-30GK-SNa	16	25	34	120	150
NJ10-30GM-Na	16	25	34	140	100
NJ10-F-Na	16	25	34	85	100
NJ15+Ua+Na	16	25	34	140	130
NJ15-30GKa-Na	16	25	34	140	100
NJ15-30GK-SNa	16	25	34	120	180
NJ15-30GM-Na	16	25	34	140	100
NJ15-M1a-Na	16	25	34	140	100

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NJ15S+Ua+Na	16	25	34	180	150
NJ20+Ua+Na	16	25	34	150	130
NJ20-40-Na	16	25	34	140	140
NJ20S+Ua+Na	16	25	34	200	150
NJ25-50-Na	16	25	34	150	140
NJ30+Ua+Na	16	25	34	160	130
NJ30P+Ua+1Na	16	25	34	150	170
NJ40+a+Na	16	25	34	180	130
NJ40+Ua+Na	16	25	34	180	130
NJ40-FP-SNa	16	25	34	370	300
NJ50-FP-Na	16	25	34	320	360

a = alphanumeric code which does not affect safety.

RC & RJ Model Series. Inductive Ring Sensors.

IS / I,II,III / 1 / ABCD / T6 Ta = 60 °C - 116-0165 Entity

I / 0 / AEx ia IIC / T6 Ta = 60 °C - 116-0165 Entity

NI / I / 2 / ABCD / T5 Ta = 60 °C

Model	Ui (V)	Ii (mA)	Pi (mW)	Ci (nF)	Li (μH)
RC10-a-N3a	16	25	34	90	120
RC10-a-N0a	16	25	34	150	100
RC15-a-N0-a	16	25	34	150	100
RC15-a-N3a	16	25	34	90	70
RJ10-Na	16	25	34	30	20
RJ10-a-Na	16	25	34	30	20
RJ10-Bia	16	25	34	90	20
RJ10-a-Bia	15	25	34	90	20
RJ-15-Na	16	25	34	130	20
RJ15-a-Na	16	25	34	130	20
RJ15-Bia	16	25	34	90	50
RJ15-a-Bia	16	25	34	90	50
RJ21-Na	16	25	34	30	25
RJ21-Bia	16	25	34	70	50
RJ43-Na	16	25	34	40	50

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SC & SJ Model Series. Inductive Slot Sensors.

IS / I,II,III / 1 / ABCD / T6 Ta = 60 °C - 116-0165 Entity

I / 0 / AEx ia IIC / T6 Ta = 60 °C - 116-0165 Entity

NI / I / 2 / ABCD / T5 Ta = 60 °C

Model	Ui (V)	Ii (mA)	Pi (mW)	Ci (nF)	Li (μH)
SC2.0-N0a	16	25	34	150	150
SC3.5a-N0a	16	25	34	150	150
SC3.5-N0-Ya	16	25	34	150	150
SJ1.8-N-Ya	16	25	34	30	100
SJ2-Na	16	25	34	30	100
SJ2-SNa	16	25	34	30	100
SJ2-S1Na	16	25	34	60	100
SJ2.2-Na	16	25	34	30	100
SJ3.5-a-Na	16	25	34	50	250
SJ3.5-H-a	16	25	34	50	250
SJ3.5-SNa	16	25	34	30	100
SJ3.5-S1Na	16	25	34	30	100
SJ5-a-Na	16	25	34	50	250
SJ5-K-a	16	25	34	50	550

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SJ10-Na	16	25	34	50	1000
SJ15-Na	16	25	34	150	1200
SJ30-Na	16	25	34	150	1250

a = alphanumeric code which does not affect safety.

Equipment Ratings:

Intrinsically safe for Class I, II, III, Division 1, Groups A, B, C, D, E, F and G, with Entity Parameters Hazardous (Classified) Locations. Temperature Class T6 at an ambient of 60°C; Intrinsically safe for Class I, Zone 0, Group IIC with Entity Parameters Hazardous (Classified) Locations Temperature Class T6 at an ambient of 60°C; Nonincendive for use in Class I Division 2 Groups A, B, C and D Hazardous (Classified) Locations Temperature Class T5 at an ambient of 60°C.

FM Approved for:

Pepperl + Fuchs, Inc.
Twinsburg, OH 44087

This certifies that the equipment described has been found to comply with the following Approval Standards and other documents:

Class 3600	2011
Class 3610	2010
Class 3611	1999

Original Project ID: 3018165

Approval Granted: January 29, 2003

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
041606	August 12, 2004		
3039656	July 19, 2010		
RR203328	December 22, 2015		

FM Approvals LLC



J. E. Marquedant
Group Manager, Electrical

22 December 2015

Date

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