

HAZARDOUS (CLASSIFIED) LOCATION

Class I, Division 1, Groups A, B, C, D

Class II, Division 1, Groups E, F, G

Class III, Division 1

or

Class I, Zone 0, Groups IIC T6 (Ta = 60°C)

Pepperl+Fuchs, Inc. "NAMUR"
output proximity sensor. See Tables
for entity parameters

NONHAZARDOUS LOCATION

Any FM certified associated apparatus
with applicable division and group or
zone and group approval and with entity
parameters:

DIVISIONS

$$V_{oc} \leq V_{max}$$

$$I_{sc} \leq I_{max}$$

$$C_a \geq C_i + C_{cable}$$

$$L_a \geq L_i + L_{cable}$$

ZONES

$$U_o \leq U_i$$

$$I_o \leq I_i$$

$$C_o \geq C_i + C_{cable}$$

$$L_o \geq L_i + L_{cable}$$

Notes:

- For installation in a Division 1 hazardous (classified) location, the wiring must be in accordance with the National Electrical Code, NFPA 70, Article 504. For installation in a Zone 0 hazardous (classified) location, the wiring must be in accordance with the National Electrical Code, NFPA 70, Article 505. For additional information refer to ISA RP-12.6.
- The Entity Concept allows interconnection of intrinsically safe and associated apparatus not specifically examined in combination as a system when the approved values of Voc (or Uo) and Isc (or Io) for the associated apparatus are less than or equal to Vmax (or Ui) and Imax (or Ii) for the intrinsically safe apparatus and the approved values of Ca (or Co) and La (or Lo) for the associated apparatus are greater than Ci + Ccable, Li + Lcable, respectively for the intrinsically safe apparatus.
- Barriers shall not be connected to any device that uses or generates in excess of 250V rms or DC unless it has been determined that the voltage is adequately isolated from the barrier.
- Note associated apparatus with only Zone 1 approved connections limits the mounting of the sensors to Zone 1.
- 'a' in model number indicates option not affecting safety.
- NAMUR sensors are also nonincendive for Class I, Division 2, Groups A,B,C, and D; Class II, Division 1, Groups E,F, and G; Class III, Division 1; Class I, Zone 2, Groups IIC, IIB, IIA T5 hazardous (classified) locations and need not be connected to an associated apparatus when installed in accordance with Control Drawing 116-0155.
- The correlation between Typee of connected circuit, maximum permissible ambient temperature and temperature class are indicated at the top of each Table.
- Model number NMB8-SAE16GM27-N1-FE-V1 approved for Class I, Division 1, Groups C and D T4 (Ta = 85°C). See Table 12.
- Warning** - Equipment with non-metallic enclosures shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. The equipment shall only be cleaned with a damp cloth.

Dieses Dokument enthält sicherheitsrelevante Angaben. Es darf nicht ohne Absprache mit dem Normenfachmann geändert werden!					
This document contains safety-relevant information. It must not be altered without the authorization of the norm expert!					
Confidential according to ISO 16016	Only valid as long as released in EDM or with a valid production documentation!			scale: 1:1	date: 2015-Dec-08
 PEPPERL+FUCHS Twinsburg	Control Drawing NAMUR SENSORS – FM	change notice tbd	respons.	PJU	116-0165G
			approved	UEH	
			norm	PJU	sheet 1 of 11

TABLE 1 – CAPACITIVE SENSORS (CBN..., CCB..., CCN..., CJ...)

			Type 1			Type 2			Type 3			Type 4		
			Ui = 16 V Ii = 25 mA Pi = 34 mW			Ui = 16 V Ii = 25 mA Pi = 64 mW			Ui = 16 V Ii = 52 mA Pi = 169 mW			Ui = 16 V Ii = 76 mA Pi = 242 mW		
			Maximum permissible ambient temperature for application in temperature class											
Model	Ci	Li	T6	T5	T4-T1	T6	T5	T4-T1	T6	T5	T4-T1	T6	T5	T4-T1
CBN2-F46-Na	45 nF	0 μH	73°C	78°C	78°C	67°C	72°C	72°C	46°C	51°C	51°C	32°C	37°C	37°C
CBN5-F46-Na	45 nF	0 μH	73°C	78°C	78°C	67°C	72°C	72°C	46°C	51°C	51°C	32°C	37°C	37°C
CBN5-F46A-Na	45 nF	0 μH	73°C	78°C	78°C	67°C	72°C	72°C	46°C	51°C	51°C	32°C	37°C	37°C
CCN5-F46A-Na	45 nF	0 μH	73°C	78°C	78°C	67°C	72°C	72°C	46°C	51°C	51°C	32°C	37°C	37°C
CCB10-30GMa-Na	155 nF	0 μH	74°C	89°C	96°C	70°C	85°C	88°C	54°C	61°C	61°C	42°C	43°C	43°C
CCN2-F46A-Na	45 nF	0 μH	73°C	78°C	78°C	67°C	72°C	72°C	46°C	51°C	51°C	32°C	37°C	37°C
CCN10-F46A-Na	45 nF	0 μH	73°C	78°C	78°C	67°C	72°C	72°C	46°C	51°C	51°C	32°C	37°C	37°C
CJ1-12GK-N-a	60 nF	0 μH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C
CJ2-18GK-N-a	60 nF	0 μH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C
CJ4-12GK-N-a	60 nF	0 μH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C
CJ6-18GK-N-a	60 nF	0 μH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C
CJ15-40-N-a	140 nF	0 μH	74°C	89°C	100°C	69°C	84°C	100°C	53°C	68°C	80°C	42°C	57°C	61°C
CJ40-FP-N-a	145 nF	0 μH	74°C	89°C	100°C	69°C	84°C	100°C	53°C	68°C	80°C	42°C	57°C	61°C

TABLE 2 – INDUCTIVE SENSORS (FJ...)

			Type 1 Ui = 16 V Ii = 25 mA Pi = 34 mW			Type 2 Ui = 16 V Ii = 25 mA Pi = 64 mW			Type 3 Ui = 16 V Ii = 52 mA Pi = 169 mW			Type 4 Ui = 16 V Ii = 76 mA Pi = 242 mW		
			Maximum permissible ambient temperature for application in temperature class											
Model	Ci	Li	T6	T5	T4-T1	T6	T5	T4-T1	T6	T5	T4-T1	T6	T5	T4-T1
FJ6-110-Na	150 nF	110 μH	73°C	88°C	100°C	73°C	88°C	100°C	62°C	77°C	81°C	54°C	63°C	63°C
FJ7-Na	65 nF	220 μH	73°C	88°C	100°C	73°C	88°C	100°C	62°C	77°C	81°C	54°C	63°C	63°C

Dieses Dokument enthält sicherheitsrelevante Angaben. Es darf nicht ohne Absprache mit dem Normenfachmann geändert werden!

This document contains safety-relevant information. It must not be altered without the authorization of the norm expert!

Confidential according to ISO 16016

Only valid as long as released in EDM or with a valid production documentation!

scale: 1:1

date: 2015-Dec-08



Control Drawing

change notice
tbd

respons.

PJU

approved

UEH

116-0165G

Twinsburg

NAMUR SENSORS – FM

norm

PJU

sheet 2 of 11

TABLE 3 – MAGNETIC SENSORS (MC..., MJ...)

Model	Vmax ,Ui	I _{max} , I _i	P _i	C _i	L _i
MC60-12GM50-1N	16 V	30 mA	75 mW	15 nF	25 µH
MC60-12GM50-1N-V1	16 V	30 mA	75 mW	15 nF	25 µH
MJ35-F12-1N	16 V	30 mA	75 mW	15 nF	25 µH

TABLE 4 – INDUCTIVE SENSORS (NCB...)

			Type 1 Ui = 16 V li = 25 mA Pi = 34 mW			Type 2 Ui = 16 V li = 25 mA Pi = 64 mW			Type 3 Ui = 16 V li = 52 mA Pi = 169 mW			Type 4 Ui = 16 V li = 76 mA Pi = 242 mW		
			Maximum permissible ambient temperature for application in temperature class											
Model	Ci	Li	T6	T5	T4-T1	T6	T5	T4-T1	T6	T5	T4-T1	T6	T5	T4-T1
NCB2-F1-N0a	90 nF	100 µH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C
NCB2-V3-N0a	100 nF	100 µH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C
NCB4-12GMa-N0a	120 nF	50 µH	74°C	89°C	100°C	69°C	84°C	100°C	51°C	66°C	74°C	39°C	52°C	52°C
NCB8-18GMa-N0a	120 nF	50 µH	74°C	89°C	100°C	69°C	84°C	100°C	51°C	66°C	74°C	39°C	52°C	52°C
NCB15+Ua+N0a	110 nF	160 µH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C
NCB15-30GMa-N0a	120 nF	150 µH	74°C	89°C	100°C	69°C	84°C	100°C	51°C	66°C	74°C	39°C	52°C	52°C
NCB40-FP-N0a	220 nF	360 µH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C

Dieses Dokument enthält sicherheitsrelevante Angaben. Es darf nicht ohne Absprache mit dem Normenfachmann geändert werden!

This document contains safety-relevant information. It must not be altered without the authorization of the norm expert!

Confidential according to ISO 16016

Only valid as long as released in EDM or with a valid production documentation!

scale: 1:1

date: 2015-Dec-08



PEPPERL+FUCHS

Control Drawing

NAMUR SENSORS – FM

change notice
tbd

respons.

approved

norm

PJU

UEH

PJU

116-0165G

sheet 3 of 11

Twinsburg

Table 5 – INDUCTIVE SENSORS (NCN...)

			Type 1			Type 2			Type 3			Type 4		
			Ui = 16 V li = 25 mA Pi = 34 mW			Ui = 16 V li = 25 mA Pi = 64 mW			Ui = 16 V li = 52 mA Pi = 169 mW			Ui = 16 V li = 76 mA Pi = 242 mW		
			Maximum permissible ambient temperature for application in temperature class											
Model	Ci	Li	T6	T5	T4-T1	T6	T5	T4-T1	T6	T5	T4-T1	T6	T5	T4-T1
NCN3-F24a-N4a	100 nF	100 μH	75°C	90°C	100°C	71°C	86°C	100°C	57°C	72°C	87°C	N/A	N/A	N/A
NCN3-F24a-SN4a	100 nF	150 μH	75°C	90°C	100°C	71°C	86°C	100°C	57°C	72°C	87°C	N/A	N/A	N/A
NCN3-F25a-N4a	100 nF	100 μH	74°C	89°C	100°C	69°C	84°C	100°C	51°C	66°C	91°C	N/A	N/A	N/A
NCN3-F25a-N4-K	100 nF	100 μH	73°C	88°C	100°C	63°C	83°C	100°C	48°C	63°C	82°C	N/A	N/A	N/A
NCN3-F25a-N4-Y41364	100 nF	100 μH	73°C	88°C	100°C	63°C	83°C	100°C	48°C	63°C	82°C	N/A	N/A	N/A
NCN3-F25a-SN4a	100 nF	150 μH	74°C	89°C	100°C	69°C	84°C	100°C	51°C	66°C	87°C	N/A	N/A	N/A
NCN3-F31a-N4a	100 nF	100 μH	77°C	92°C	100°C	75°C	90°C	100°C	67°C	82°C	90°C	N/A	N/A	N/A
NCN3-F31K-N4(-Ya)	100 nF	100 μH	77°C	92°C	100°C	75°C	90°C	100°C	67°C	82°C	90°C	N/A	N/A	N/A
NCN3-F31K-N4a	100 nF	100 μH	63°C	78°C	100°C	63°C	78°C	100°C	63°C	78°C	90°C	N/A	N/A	N/A
NCN3-F36a-N4a	100 nF	100 μH	75°C	90°C	100°C	71°C	86°C	100°C	57°C	72°C	87°C	N/A	N/A	N/A
NCN4-M3K-N4a	100 nF	100 μH	73°C	88°C	100°C	67°C	82°C	100°C	47°C	62°C	78°C	N/A	N/A	N/A
NCN4-V3-N0a	100 nF	100 μH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C
NCN15-Ma-N0a	100 nF	100 μH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C
NCN20+Ua+N0a	110 nF	160 μH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C
NCN30+Ua+N0a	110 nF	160 μH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C
NCN40+Ua+N0a	120 nF	130 μH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C
NCN50-FP-N0a	220 nF	360 μH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C

Dieses Dokument enthält sicherheitsrelevante Angaben. Es darf nicht ohne Absprache mit dem Normenfachmann geändert werden!

This document contains safety-relevant information. It must not be altered without the authorization of the norm expert!

Confidential according to ISO 16016

Only valid as long as released in EDM or with a valid production documentation!

scale: 1:1

date: 2015-Dec-08



PEPPERL+FUCHS

Control Drawing

NAMUR SENSORS – FM

change notice
tbd

respons.

approved

norm

PJU

UEH

PJU

116-0165G

sheet 4 of 11

Twinsburg

TABLE 6 – INDUCTIVE SENSORS (NJ0,8... TO NJ2...)

			Type 1			Type 2			Type 3			Type 4		
			Ui = 16 V			Ui = 16 V			Ui = 16 V			Ui = 16 V		
			Ii = 25 mA			Ii = 25 mA			Ii = 52 mA			Ii = 76 mA		
			Pi = 34 mW			Pi = 64 mW			Pi = 169 mW			Pi = 242 mW		
			Maximum permissible ambient temperature for application in temperature class											
Model	Ci	Li	T6	T5	T4-T1	T6	T5	T4-T1	T6	T5	T4-T1	T6	T5	T4-T1
NJ0,8-F-Na	30 nF	50 µH	73°C	88°C	100°C	67°C	82°C	100°C	45°C	60°C	78°C	30°C	45°C	57°C
NJ1,5-F-Na	30 nF	50 µH	73°C	88°C	100°C	67°C	82°C	100°C	45°C	60°C	78°C	30°C	45°C	57°C
NJ2,5-F-Na	40 nF	50 µH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C
NJ2-11-SNa	50 nF	150 µH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C
NJ2-11-SN-Ga	50 nF	150 µH	76°C	91°C	100°C	73°C	88°C	100°C	62°C	77°C	81°C	54°C	63°C	63°C
NJ2-12GK-SNa	50 nF	150 µH	73°C	88°C	100°C	69°C	84°C	100°C	51°C	66°C	80°C	39°C	54°C	61°C
NJ2-F1-Na	30 nF	50 µH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C
NJ2-V3-Na	40 nF	50 µH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C

Dieses Dokument enthält sicherheitsrelevante Angaben. Es darf nicht ohne Absprache mit dem Normenfachmann geändert werden!

This document contains safety-relevant information. It must not be altered without the authorization of the norm expert!

Confidential according to ISO 16016

Only valid as long as released in EDM or with a valid production documentation!

scale: 1:1

date: 2015-Dec-08



PEPPERL+FUCHS

Control Drawing

NAMUR SENSORS – FM

change notice
tbd

respons.

approved

norm

PJU

UEH

PJU

116-0165G

sheet 5 of 11

Twinsburg

TABLE 7 – INDUCTIVE SENSORS (NJ3... TO NJ10...)

			Type 1 Ui = 16 V Ii = 25 mA Pi = 34 mW			Type 2 Ui = 16 V Ii = 25 mA Pi = 64 mW			Type 3 Ui = 16 V Ii = 52 mA Pi = 169 mW			Type 4 Ui = 16 V Ii = 76 mA Pi = 242 mW		
			Maximum permissible ambient temperature for application in temperature class											
Model	Ci	Li	T6	T5	T4-T1	T6	T5	T4-T1	T6	T5	T4-T1	T6	T5	T4-T1
NJ3-18GK-S1Na	70 nF	200 μH	73°C	88°C	100°C	69°C	84°C	100°C	51°C	66°C	80°C	39°C	54°C	61°C
NJ4-12GK-SNa	70 nF	150 μH	73°C	88°C	100°C	69°C	84°C	100°C	51°C	66°C	80°C	39°C	54°C	61°C
NJ4-F-Na	150 nF	100 μH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C
NJ5-18GK-SNa	120 nF	200 μH	73°C	88°C	100°C	69°C	84°C	100°C	51°C	66°C	80°C	39°C	54°C	61°C
NJ5-30GK-S1Na	100 nF	200 μH	73°C	88°C	100°C	69°C	84°C	100°C	51°C	66°C	80°C	39°C	54°C	61°C
NJ6-22-SNa	110 nF	150 μH	73°C	88°C	100°C	69°C	84°C	100°C	51°C	66°C	80°C	39°C	54°C	61°C
NJ6-22-SN-Ga	110 nF	150 μH	76°C	91°C	100°C	73°C	88°C	100°C	62°C	77°C	81°C	54°C	63°C	63°C
NJ6S1+Ua+Na	180 nF	150 μH	73°C	88°C	100°C	69°C	84°C	100°C	51°C	66°C	80°C	39°C	54°C	61°C
NJ6-F-Na	70 nF	100 μH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C
NJ8-18GK-SNa	120 nF	200 μH	73°C	88°C	100°C	69°C	84°C	100°C	51°C	66°C	80°C	39°C	54°C	61°C
NJ10-30GK-SNa	120 nF	150 μH	73°C	88°C	100°C	69°C	84°C	100°C	51°C	66°C	80°C	39°C	54°C	61°C
NJ10-F-Na	85 nF	100 μH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C

Dieses Dokument enthält sicherheitsrelevante Angaben. Es darf nicht ohne Absprache mit dem Normenfachmann geändert werden!

This document contains safety-relevant information. It must not be altered without the authorization of the norm expert!

Confidential according to ISO 16016

Only valid as long as released in EDM or with a valid production documentation!

scale: 1:1

date: 2015-Dec-08



Control Drawing

change notice
tbd

respons.

PJU

approved

UEH

116-0165G

Twinsburg

NAMUR SENSORS – FM

norm

PJU

sheet 6 of 11

TABLE 8 – INDUCTIVE SENSORS (NJ15... TO NJ50...)

			Type 1 Ui = 16 V li = 25 mA Pi = 34 mW			Type 2 Ui = 16 V li = 25 mA Pi = 64 mW			Type 3 Ui = 16 V li = 52 mA Pi = 169 mW			Type 4 Ui = 16 V li = 76 mA Pi = 242 mW		
			Maximum permissible ambient temperature for application in temperature class											
Model	Ci	Li	T6	T5	T4-T1	T6	T5	T4-T1	T6	T5	T4-T1	T6	T5	T4-T1
NJ15+Ua+Na	140 nF	130 μH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C
NJ15-30GK-SNa	120 nF	180 μH	73°C	88°C	100°C	69°C	84°C	100°C	51°C	66°C	80°C	39°C	54°C	61°C
NJ15-M1a-Na	140 nF	100 μH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C
NJ15S+Ua+Na	180 nF	150 μH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C
NJ20+Ua+Na	150 nF	130 μH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C
NJ20S+Ua+Na	200 nF	150 μH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C
NJ30+Ua+Na	160 nF	130 μH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C
NJ30P+Ua+1Na	150 nF	170 μH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C
NJ40+a+Na	180 nF	130 μH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C
NJ40+Ua+Na	180 nF	130 μH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C
NJ40-FP-SNa	370 nF	300 μH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C
NJ50-FP-Na	320 nF	360 μH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C

Dieses Dokument enthält sicherheitsrelevante Angaben. Es darf nicht ohne Absprache mit dem Normenfachmann geändert werden!

This document contains safety-relevant information. It must not be altered without the authorization of the norm expert!

Confidential according to ISO 16016

Only valid as long as released in EDM or with a valid production documentation!

scale: 1:1

date: 2015-Dec-08



PEPPERL+FUCHS

Control Drawing

NAMUR SENSORS – FM

change notice
tbd

respons.

approved

norm

PJU

UEH

PJU

116-0165G

sheet 7 of 11

Twinsburg

TABLE 9 – INDUCTIVE SENSORS (NCB1,5... TO NJ20-40-N...)

			Type 1 Ui = 16 V li = 25 mA Pi = 34 mW			Type 2 Ui = 16 V li = 25 mA Pi = 64 mW			Type 3 Ui = 16 V li = 52 mA Pi = 169 mW			Type 4 Ui = 16 V li = 76 mA Pi = 242 mW		
			Maximum permissible ambient temperature for application in temperature class											
Model	Ci	Li	T6	T5	T4-T1	T6	T5	T4-T1	T6	T5	T4-T1	T6	T5	T4-T1
NCB1,5aMaN0a	90 nF	100 µH	74°C	89°C	100°C	69°C	84°C	100°C	51°C	66°C	85°C	39°C	54°C	67°C
NCB2-12GKa-N0a	90 nF	100 µH	73°C	88°C	100°C	69°C	84°C	100°C	51°C	66°C	80°C	39°C	54°C	61°C
NCB2-12GMa-N0a	90 nF	100 µH	76°C	91°C	100°C	73°C	88°C	100°C	62°C	77°C	81°C	54°C	63°C	63°C
NCN4-12GKa-N0a	95 nF	100 µH	73°C	88°C	100°C	69°C	84°C	100°C	51°C	66°C	80°C	39°C	54°C	61°C
NCN4-12GMa-N0a	95 nF	100 µH	76°C	91°C	100°C	73°C	88°C	100°C	62°C	77°C	81°C	54°C	63°C	63°C
NCB5-18GKa-N0a	95 nF	100 µH	73°C	88°C	100°C	69°C	84°C	100°C	51°C	66°C	80°C	39°C	54°C	61°C
NCB5-18GMa-N0a	95 nF	100 µH	76°C	91°C	100°C	73°C	88°C	100°C	62°C	77°C	81°C	54°C	63°C	63°C
NCN8-18GKa-N0a	95 nF	100 µH	73°C	88°C	100°C	69°C	84°C	100°C	51°C	66°C	80°C	39°C	54°C	61°C
NCN8-18GMa-N0a	95 nF	100 µH	76°C	91°C	100°C	73°C	88°C	100°C	62°C	77°C	81°C	54°C	63°C	63°C
NCB10-30GKa-N0a	105 nF	100 µH	73°C	88°C	100°C	69°C	84°C	100°C	51°C	66°C	80°C	39°C	54°C	61°C
NCB10-30GMa-N0a	105 nF	100 µH	76°C	91°C	100°C	73°C	88°C	100°C	62°C	77°C	81°C	54°C	63°C	63°C
NCN15-30GKa-N0a	110 nF	100 µH	73°C	88°C	100°C	69°C	84°C	100°C	51°C	66°C	80°C	39°C	54°C	61°C
NCN15-30GMa-N0a	110 nF	100 µH	76°C	91°C	100°C	73°C	88°C	100°C	62°C	77°C	81°C	54°C	63°C	63°C
NJ0,2-10GM-Na	20 nF	50 µH	73°C	88°C	100°C	68°C	83°C	100°C	49°C	64°C	67°C	36°C	42°C	42°C
NJ0,8-4,5-Na	30 nF	50 µH	73°C	88°C	100°C	68°C	83°C	100°C	49°C	64°C	67°C	36°C	42°C	42°C
NJ0,8-5GM-Na	30 nF	50 µH	73°C	88°C	100°C	68°C	83°C	100°C	49°C	64°C	67°C	36°C	42°C	42°C
NJ1,5-6,5a-Na	30 nF	50 µH	73°C	88°C	100°C	68°C	83°C	100°C	49°C	64°C	67°C	36°C	42°C	42°C
NJ1,5-10GM-N-Ya	20 nF	50 µH	73°C	88°C	100°C	68°C	83°C	100°C	49°C	64°C	67°C	36°C	42°C	42°C
NJ1,5-8GM-Na	30 nF	50 µH	73°C	88°C	100°C	68°C	83°C	100°C	49°C	64°C	67°C	36°C	42°C	42°C
NJ1,5-8-Na	20 nF	50 µH	73°C	88°C	100°C	68°C	83°C	100°C	49°C	64°C	67°C	36°C	42°C	42°C
NJ1,5-18GM-N-Da	50 nF	60 µH	76°C	91°C	100°C	73°C	88°C	100°C	62°C	77°C	81°C	54°C	63°C	63°C
NJ2-11-Na	45 nF	50 µH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C
NJ2-11-N-Ga	30 nF	50 µH	76°C	91°C	100°C	73°C	88°C	100°C	62°C	77°C	81°C	54°C	63°C	63°C
NJ2-12GK-Na	45 nF	50 µH	73°C	88°C	100°C	69°C	84°C	100°C	51°C	66°C	80°C	39°C	54°C	61°C
NJ2-12GM-Na	30 nF	50 µH	76°C	91°C	100°C	73°C	88°C	100°C	62°C	77°C	81°C	54°C	63°C	63°C
NJ2-14GM-Na	30 nF	50 µH	76°C	91°C	100°C	73°C	88°C	100°C	62°C	77°C	81°C	54°C	63°C	63°C
NJ2,5-14GM-Na	30 nF	50 µH	76°C	91°C	100°C	73°C	88°C	100°C	62°C	77°C	81°C	54°C	63°C	63°C
NJ4-12GK-Na	45 nF	50 µH	73°C	88°C	100°C	69°C	84°C	100°C	51°C	66°C	80°C	39°C	54°C	61°C
NJ4-14GK-Na	45 nF	50 µH	73°C	88°C	100°C	69°C	84°C	100°C	51°C	66°C	80°C	39°C	54°C	61°C

Dieses Dokument enthält sicherheitsrelevante Angaben. Es darf nicht ohne Absprache mit dem Normenfachmann geändert werden!

This document contains safety-relevant information. It must not be altered without the authorization of the norm expert!

Confidential according to ISO 16016

Only valid as long as released in EDM or with a valid production documentation!

scale: 1:1

date: 2015-Dec-08



PEPPERL+FUCHS

Control Drawing

NAMUR SENSORS – FM

change notice
tbd

respons.

PJU

approved

UEH

norm

PJU

116-0165G

sheet 8 of 11

Twinsburg

TABLE 9 – INDUCTIVE SENSORS (NCB1,5... TO NJ20-40-N...) continued

			Type 1 Ui = 16 V Ii = 25 mA Pi = 34 mW			Type 2 Ui = 16 V Ii = 25 mA Pi = 64 mW			Type 3 Ui = 16 V Ii = 52 mA Pi = 169 mW			Type 4 Ui = 16 V Ii = 76 mA Pi = 242 mW		
			Maximum permissible ambient temperature for application in temperature class											
Model	Ci	Li	T6	T5	T4-T1	T6	T5	T4-T1	T6	T5	T4-T1	T6	T5	T4-T1
NJ4-12GM-Na	45 nF	50 µH	73°C	88°C	100°C	68°C	83°C	100°C	49°C	64°C	67°C	36°C	42°C	42°C
NJ4-30GM-N-200a	70 nF	100 µH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C
NJ5-10-11-Na	70 nF	100 µH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	78°C	30°C	45°C	57°C
NJ5-11-Na	45 nF	50 µH	72°C	87°C	100°C	65°C	80°C	100°C	42°C	57°C	82°C	26°C	41°C	63°C
NJ5-18GK-Na	70 nF	50 µH	73°C	88°C	100°C	69°C	84°C	100°C	51°C	66°C	80°C	39°C	54°C	61°C
NJ5-18GM-Na	70 nF	50 µH	76°C	91°C	100°C	73°C	88°C	100°C	62°C	77°C	81°C	54°C	63°C	63°C
NJ6-22-Na	130 nF	100 µH	73°C	88°C	100°C	69°C	84°C	100°C	51°C	66°C	80°C	39°C	54°C	61°C
NJ8-18GK-Na	70 nF	50 µH	73°C	88°C	100°C	69°C	84°C	100°C	51°C	66°C	80°C	39°C	54°C	61°C
NJ8-18GM-Na	70 nF	50 µH	76°C	91°C	100°C	73°C	88°C	100°C	62°C	77°C	81°C	54°C	63°C	63°C
NJ10-22-Na	130 nF	100 µH	73°C	88°C	100°C	69°C	84°C	100°C	51°C	66°C	80°C	39°C	54°C	61°C
NJ10-30GKa-Na	140 nF	100 µH	73°C	88°C	100°C	69°C	84°C	100°C	51°C	66°C	80°C	39°C	54°C	61°C
NJ10-30GM-Na	140 nF	100 µH	76°C	91°C	100°C	73°C	88°C	100°C	62°C	77°C	81°C	54°C	63°C	63°C
NJ15-30GKa-Na	140 nF	100 µH	73°C	88°C	100°C	69°C	84°C	100°C	51°C	66°C	80°C	39°C	54°C	61°C
NJ15-30GM-Na	140 nF	100 µH	76°C	91°C	100°C	73°C	88°C	100°C	62°C	77°C	81°C	54°C	63°C	63°C
NJ25-50-Na	150 nF	140 µH	73°C	88°C	100°C	69°C	84°C	100°C	51°C	66°C	80°C	39°C	54°C	61°C
NJ20-40-Na	140 nF	140 µH	73°C	88°C	100°C	69°C	84°C	100°C	51°C	66°C	80°C	39°C	54°C	61°C

Dieses Dokument enthält sicherheitsrelevante Angaben. Es darf nicht ohne Absprache mit dem Normenfachmann geändert werden!

This document contains safety-relevant information. It must not be altered without the authorization of the norm expert!

Confidential according to ISO 16016

Only valid as long as released in EDM or with a valid production documentation!

scale: 1:1

date: 2015-Dec-08



PEPPERL+FUCHS

Control Drawing

NAMUR SENSORS – FM

change notice
tbd

respons.

approved

norm

PJU

UEH

PJU

116-0165G

sheet 9 of 11

Twinsburg

TABLE 10 – INDUCTIVE RING SENSORS (RC..., RJ...)

			Type 1			Type 2			Type 3			Type 4		
			Ui = 16 V Ii = 25 mA Pi = 34 mW			Ui = 16 V Ii = 25 mA Pi = 64 mW			Ui = 16 V Ii = 52 mA Pi = 169 mW			Ui = 16 V Ii = 76 mA Pi = 242 mW		
			Maximum permissible ambient temperature for application in temperature class											
Model	Ci	Li	T6	T5	T4-T1	T6	T5	T4-T1	T6	T5	T4-T1	T6	T5	T4-T1
RC10-a-N3a	90 nF	120 µH	75°C	90°C	100°C	70°C	85°C	100°C	55°C	70°C	90°C	N/A	N/A	N/A
RC10-a-N0a	150 nF	100 µH	75°C	90°C	100°C	70°C	85°C	100°C	55°C	70°C	90°C	N/A	N/A	N/A
RC15-a-N0-a	150 nF	100 µH	75°C	90°C	100°C	70°C	85°C	100°C	55°C	70°C	90°C	N/A	N/A	N/A
RC15-a-N3a	90 nF	70 µH	75°C	90°C	100°C	70°C	85°C	100°C	55°C	70°C	90°C	N/A	N/A	N/A
RJ10-Na	30 nF	20 µH	75°C	90°C	100°C	70°C	85°C	100°C	55°C	70°C	90°C	N/A	N/A	N/A
RJ10-a-Na	30 nF	20 µH	75°C	90°C	100°C	70°C	85°C	100°C	55°C	70°C	90°C	N/A	N/A	N/A
RJ10-Bia	90 nF	20 µH	75°C	90°C	100°C	70°C	85°C	100°C	55°C	70°C	90°C	N/A	N/A	N/A
RJ10-a-Bia	90 nF	20 µH	75°C	90°C	100°C	70°C	85°C	100°C	55°C	70°C	90°C	N/A	N/A	N/A
RJ15-Na	130 nF	20 µH	75°C	90°C	100°C	70°C	85°C	100°C	55°C	70°C	90°C	N/A	N/A	N/A
RJ15-a-Na	130 nF	20 µH	75°C	90°C	100°C	70°C	85°C	100°C	55°C	70°C	90°C	N/A	N/A	N/A
RJ15-Bia	90 nF	50 µH	75°C	90°C	100°C	70°C	85°C	100°C	55°C	70°C	90°C	N/A	N/A	N/A
RJ15-a-Bia	90 nF	50 µH	75°C	90°C	100°C	70°C	85°C	100°C	55°C	70°C	90°C	N/A	N/A	N/A
RJ21-Na	30 nF	25 µH	75°C	90°C	100°C	70°C	85°C	100°C	55°C	70°C	90°C	N/A	N/A	N/A
RJ21-Bia	70 nF	50 µH	75°C	90°C	100°C	70°C	85°C	100°C	55°C	70°C	90°C	N/A	N/A	N/A
RJ43-Na	40 nF	50 µH	75°C	90°C	100°C	70°C	85°C	100°C	55°C	70°C	90°C	N/A	N/A	N/A

Dieses Dokument enthält sicherheitsrelevante Angaben. Es darf nicht ohne Absprache mit dem Normenfachmann geändert werden!

This document contains safety-relevant information. It must not be altered without the authorization of the norm expert!

Confidential according to ISO 16016

Only valid as long as released in EDM or with a valid production documentation!

scale: 1:1

date: 2015-Dec-08



PEPPERL+FUCHS

Control Drawing

NAMUR SENSORS – FM

change notice
tbd

respons.

approved

norm

PJU

UEH

PJU

116-0165G

sheet 10 of 11

Twinsburg

TABLE 11 – INDUCTIVE SLOT SENSORS (SC..., SJ...)

			Type 1 Ui = 16 V li = 25 mA Pi = 34 mW			Type 2 Ui = 16 V li = 25 mA Pi = 64 mW			Type 3 Ui = 16 V li = 52 mA Pi = 169 mW			Type 4 Ui = 16 V li = 76 mA Pi = 242 mW		
			Maximum permissible ambient temperature for application in temperature class											
Model	Ci	Li	T6	T5	T4-T1	T6	T5	T4-T1	T6	T5	T4-T1	T6	T5	T4-T1
SC2-N0a	150 nF	150 µH	55°C	67°C	95°C	48°C	60°C	88°C	23°C	35°C	63°C	6°C	18°C	46°C
SC3,5a-N0a	150 nF	150 µH	56°C	68°C	96°C	49°C	61°C	89°C	28°C	40°C	68°C	13°C	25°C	53°C
SC3,5-N0-Ya	150 nF	150 µH	55°C	67°C	95°C	48°C	60°C	88°C	23°C	35°C	63°C	6°C	18°C	46°C
SJ1,8-N-Ya	30 nF	100 µH	73°C	88°C	100°C	67°C	82°C	100°C	45°C	60°C	78°C	30°C	45°C	57°C
SJ2-Na	30 nF	100 µH	56°C	68°C	96°C	49°C	61°C	89°C	28°C	40°C	68°C	13°C	25°C	53°C
SJ2-SNa	30 nF	100 µH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	78°C	30°C	45°C	57°C
SJ2-S1Na	60 nF	100 µH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	78°C	30°C	45°C	57°C
SJ2,2-Na	30 nF	100 µH	73°C	88°C	100°C	67°C	82°C	100°C	45°C	60°C	78°C	30°C	45°C	57°C
SJ3,5-a-Na	50 nF	250 µH	56°C	68°C	96°C	49°C	61°C	89°C	28°C	40°C	68°C	13°C	25°C	53°C
SJ3,5-H-a	50 nF	250 µH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C
SJ3,5-SNa	30 nF	100 µH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C
SJ3,5-S1Na	30 nF	100 µH	73°C	88°C	100°C	66°C	81°C	100°C	45°C	60°C	89°C	30°C	45°C	74°C
SJ5-a-Na	50 nF	250 µH	56°C	68°C	96°C	49°C	61°C	89°C	28°C	40°C	68°C	13°C	25°C	53°C
SJ5-Ka	50 nF	550 µH	55°C	67°C	95°C	48°C	60°C	88°C	25°C	37°C	65°C	9°C	21°C	49°C
SJ10-Na	50 nF	100 µH	55°C	67°C	95°C	48°C	60°C	88°C	25°C	37°C	65°C	9°C	21°C	49°C
SJ15-Na	150 nF	1200 µH	55°C	67°C	95°C	48°C	60°C	88°C	25°C	37°C	65°C	9°C	21°C	49°C
SJ30-Na	150 nF	1250 µH	55°C	67°C	95°C	48°C	60°C	88°C	25°C	37°C	65°C	9°C	21°C	49°C

TABLE 12 – INDUCTIVE SENSORS (NMB...)

Model	Vmax ,Ui	Imax, li	Pi	Ci	Li
NMB8-SAE16GM27-N1-FE-V1	16 V	25 mA	100 mW	2 µF	8 mH

Dieses Dokument enthält sicherheitsrelevante Angaben. Es darf nicht ohne Absprache mit dem Normenfachmann geändert werden!

This document contains safety-relevant information. It must not be altered without the authorization of the norm expert!

Confidential according to ISO 16016

Only valid as long as released in EDM or with a valid production documentation!

scale: 1:1

date: 2015-Dec-08



PEPPERL+FUCHS

Control Drawing

NAMUR SENSORS – FM

change notice
tbd

respons.

approved

norm

PJU

UEH

PJU

116-0165G

sheet 11 of 11

Twinsburg