OMRON

EC Declaration of Conformity

We hereby declare that the following products are in conformity with the requirements of the following EC Directive:

Product:	Safety Light Curtain	
Type:	F3SJ-E series	
	F3SJ-B series	
Title and No. of Directive:	EMC Directive	2004/108/EC
	Machinery Directive	2006/42/EC

These products are designed and manufactured in accordance with the following standards.

EMC Directive:

EMI (Electromagnetic Interference):
EN 61000-6-4: 2007/A1:2011

EMS (Electromagnetic Susceptibility):
EN 61496-1:2004/A1: 2008

Machinery Directive:

Electro-sensitive protective equipment:
EN 61496-1:2004/A1: 2008

Active opto-electronic protective devices:
IEC 61496-2: 2006

Description of Product:

The F3SJ-E/B series are electro-sensitive device designed specifically to detect persons in order to ensure their safety. The F3SJ-E/B Type 4 series are ESPE Type 4 according to EN 61496-1:2004/A1:2008 & AOPD Type 4 according to IEC 61496-2:2006 and can be used as a safeguard for personal protection at machinery and other hazardous areas, which require safeguards according to Category B, 1, 2, 3, 4 and "PL e" according to EN ISO 13849-1:2008.

Certificate:

Machinery Directive - Certificate for EC Type-Examination (No.: M6A 11 08 39656 227)
Notified Body: TÜV SÜD Product Service GmbH
Address: Zertifizierstelle, Ridlerstrasse 65, 80339, München, Germany
Notified Body identification No.: 0123

Responsible Person for Documentation:

J.J.P.W. Vogelaar OMRON EUROPE B.V.
Zilverenberg 2, 5234 GM, 's-Hertogenbosch, The Netherlands

Manufacturer:

Name: OMRON Corporation, Industrial Automation Company, Safety Division
Address: Shiokoji-horikawa, Shimogyo-ku, Kyoto, 600-8530, JAPAN

Date: Dec. 17. 2013

Signed: Eiji Bando

Eiji Bando Business Development Dept.

Representative in EU:

Name: OMRON Europe B.V.
Address: Zilverenberg 2, 5234 GM, 's-Hertogenbosch, THE NETHERLANDS

Date: Jan 6, 2014

Signed:

J.J.P.W. Vogelaar European Quality & Environment Operations Manager

Products Covered

Type: F3SJ-E, F3SJ-B Series

F3SJ - ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) - ( ) - ( ) ( ) ( )
I II III IV V VI VII

I : Blank
II : E or B
III : 0185 to 2065
IV : P, N, or Blank
V : 25
VI : Blank, L, or D
VII : Blank, or additional letter(s), number(s), and/or dash

Revision History

Rev.	Date	Revised Contents
A	16 Mar 2011	Original Version
B	24 Jun 2011	- The document format updated. - The edition of EN61496-1 updated. - CLC/TS61496-2:2006 changed to IEC 61496-2:2006. - The year of CE marking, EC Type-Examination Certificate No, Notified Body identification No., Responsible person for documentation and Types List for EC Directive added. - "Product covered" statement deleted.
C	16 Sep 2011	- EC Type-Examination Certificate No. updated. - The year of CE marking deleted. - Types List for EC Directive deleted and Product Covered added.
D	Dec 5, 2013	Standard for EMC Directive updated: (EMI) EN 61000-6-4:2007 → EN 61000-6-4:2007/A1:2011 Manufacturer and Representative in EU updated.

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

Product Service

CERTIFICATE

No. Z10 15 09 39656 300

Holder of Certificate: **Omron Corporation**
Shiokoji Horikawa,Shimogyo-ku
Kyoto
600-8530 JAPAN

Factory(ies): 48774, 56891

Certification Mark:

Product: **Electro-Sensitive Protective Equipment (AOPD) Type 4**

Model(s): **F3SJ-B**
F3SJ-E
For nomenclature of product type see attachment

Parameters:

Power supply:	24 VDC +/- 20%
Current consumption:	max. 58 mA Emitter [Easy]
	max. 51 mA Receiver [Easy]
	max. 101 mA Emitter [Basic]
	max. 69 mA Receiver [Basic]
Detection capability:	25 mm
Operating range:	0,2 m - 7 m
Operating temperature:	-10°C +55°C
Protection class:	IP65
Response time:	max. 15 ms

Tested according to:
2006/42/EC
IEC 61508-1(ed. 2) (SIL 3)
IEC 61508-2(ed. 2) (SIL 3)
IEC 61508-3(ed. 2) (SIL 3)
IEC 61508-4(ed. 2) (SIL 3)
IEC 61496-1(ed. 3)
EN 61496-1:2013
IEC 61496-2(ed. 3)
EN 61496-2:2013
EN ISO 13849-1:2008 (Cat.4, PL e)

The product was tested on a voluntary basis and complies with the essential requirements. The certification mark shown above can be affixed on the product. It is not permitted to alter the certification mark in any way. In addition the certification holder must not transfer the certificate to third parties. See also notes overleaf.

Test report no.: 717503902
Valid until: 2020-09-23

Date, 2015-09-25 (Günter Greil)

685079

TÜV SÜD Product Service GmbH · Zertifizierstelle · Ridlerstraße 65 · 80339 München · Germany

TÜV®

Product Service

ATTACHMENT

to certificate

No. Z10 15 09 39656 300

1. Nomenclature of F3SJ-B, F3SJ-E

F3SJ – □ □ □□□□ □ □□ – □ – □□□
I II III IV V VI VII VIII

I. Product classification
F3SJ : Safety light curtain

II. Type classification
Blank : Type 4 ESPE/ AOPD

III. Model Classification
E : Easy model
B : Basic model

IV. Protective heigh (PH)
[Basic model]
4 figures from 0185 to 2065: PH is calculated with the following formula.
PH (mm) = 20 x (Number of beams -1) + 45

[Easy model]
4 figures from 0185 to 1105: PH is calculated with the following formula.
PH (mm) = 20 x (Number of beams -1) + 45

V. Output
P : PNP transistor output (for receiver or set of emitter and receiver)
N : NPN transistor output (for receiver or set of emitter and receiver)
– : None (for emitter)

VI. Detection capability
25 : 25 mm

VII. Emitter or Receiver
Blank : Set of Emitter and Receiver
L : Emitter
D : Receiver

VIII. Additional suffix
Blank : Standard type
Additional letter(s), number(s), and/or dash: The following specification changes are indicated by this additional suffix.
1) Cable length within maximum length specification
2) Connector-less cable/ Connector cable
3) Factory settings of the selectable functions
4) Appearance of the enclosure, and /or additional markings
5) Packaging style and/or contained accessories
6) Name of the indicators, inputs, and/or outputs
7) Protective cover mounted, label design modified, and operating range reduced

2. Factory settings of the selectable functions

1) Enabling/ disabling the EDM function, the start interlock function, and/or the reset interlock function
2) Enabling/ disabling the Muting key enable function
3) Reversing input logic of external test function
4) Changing the muting state time limit to be infinite
5) Changing the auxiliary output mode to be OSSD inverted, muting/ override state, or lockout state

Department: TR-RA/MUC
Date: 2015-09-25

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

EC-Type Examination Certificate

No. M6A 11 06 39656 233

Holder of Certificate: **Omron Corporation**
Shiokoji Horikawa,Shimogyo-ku
Kyoto
600-8530 JAPAN

Product: **Electro-Sensitive Protective Equipment (AOPD) Type 4**

Model(s): **F3SJ-B**
F3SJ-E
For Nomenclature of Product type see attachment

Parameters:

Power supply:	24Vdc +/- 20%
Current consumption:	max. 58mA Emitter [Easy]
	max. 51mA Receiver [Easy]
	max. 101mA Emitter [Basic]
	max. 69mA Receiver [Basic]
Detection capability:	25mm
Operating range:	0,2 - 7m
Operating temperature:	-10°C +55°C
Protection class:	IP65
Response time:	max. 15ms

This EC Type Examination Certificate is issued according to Article 12(3) b or 12(4) a of Council Directive 2006/42/EC relating to machinery. It confirms that the listed Annex-IV equipment complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. See also notes overleaf.

Test report no.: 717503902

Valid until: 2016-06-14

472045

Date, 2011-06-15 (Jürgen Blum)

TÜV SÜD Product Service GmbH is Notified Body according to Council Directive 2006/42/EC relating to machinery, notified by publication in the Official Journal of the EC with identification No. 0123.

ATTACHMENT

to certificate

No. M6A 11 06 39656 233

1. Nomenclature of F3SJ-B, F3SJ-E

F3SJ – □ □ □□□□ □ □□ – □ – □□□
I II III IV V VI VII VIII

I. Product classification
F3SJ :Safety light curtain

II. Type classification
Blank : Type 4 ESPE/ AOPD

III. Model Classification
E : Easy model
B : Basic model

IV. Protective heigh (PH)
[Basic model]
4 figures from 0185 to 2065: PH is calculated with the following formula.
PH (mm) = 20 x (Number of beams -1) + 45

[Easy model]
4 figures from 0185 to 1105: PH is calculated with the following formula.
PH (mm) = 20 x (Number of beams -1) + 45

V. Output
P : PNP transistor output (for receiver or set of emitter and receiver)
N : NPN transistor output (for receiver or set of emitter and receiver)
– : None (for emitter)

VI. Detection capability
25 : 25 mm

VII. Emitter or Receiver
Blank : Set of Emitter and Receiver
L : Emitter
D : Receiver

VIII. Additional suffix
Blank : Standard type
Additional letter(s), number(s), and/or dash: The following specification changes are indicated by this additional suffix.
1) Cable length within maximum length specification
2) Connector-less cable/ Connector cable
3) Factory settings of the selectable functions
4) Appearance of the enclosure, and /or additional markings
5) Packaging style and/or contained accessories
6) Name of the indicators, inputs, and/or outputs

2. Factory settings of the selectable functions

1) Enabling/ disabling the EDM function, the start interlock function, and/or the reset interlock function
2) Enabling/ disabling the Muting key enable function
3) Reversing input logic of external test function
4) Changing the muting state time limit to be infinite
5) Changing the auxiliary output mode to be OSSD inverted, muting/ override state, or lockout state

Department: TR-RA/MUC
Date: 2011-06-15

TÜV SÜD Product Service GmbH · Zertifizierstelle · Ridlerstraße 65 · 80339 München · Germany

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

EC-Type Examination Certificate

No. M6A 11 06 39656 232

Holder of Certificate: **Omron Corporation**
Shiokoji Horikawa,Shimogyo-ku
Kyoto
600-8530 JAPAN

Product: **Electro-Sensitive Protective Equipment (AOPD) Type 2**

Model(s): **F3SJ-2B**
F3SJ-2E
For Nomenclature of Product type see attachment

Parameters:

Power supply:	24Vdc +/- 20%
Current consumption:	max. 58mA Emitter [Easy]
	max. 51mA Receiver [Easy]
	max. 101mA Emitter [Basic]
	max. 69mA Receiver [Basic]
Detection capability:	25mm
Operating range:	0,2 - 4m
Operating temperature:	-10°C +55°C
Protection class:	IP65
Response time:	max. 15ms

This EC Type Examination Certificate is issued according to Article 12(3) b or 12(4) a of Council Directive 2006/42/EC relating to machinery. It confirms that the listed Annex-IV equipment complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. See also notes overleaf.

Test report no.: 717503902

Valid until: 2016-06-14

Date, 2011-06-15 (Jürgen Blum)

TÜV SÜD Product Service GmbH is Notified Body according to Council Directive 2006/42/EC relating to machinery, notified by publication in the Official Journal of the EC with identification No. 0123.

TÜV SÜD Product Service GmbH · Zertifizierstelle · Ridlerstraße 65 · 80339 München · Germany

ATTACHMENT

to certificate

No. M6A 11 06 39656 232

1. Nomenclature of F3SJ-2B, F3SJ-2E

F3SJ – □ □ □□□□ □ □□ – □ – □□□
I II III IV V VI VII VIII

I. Product classification
F3SJ :Safety light curtain

II. Type classification
2 : Type 2 ESPE/ AOPD

III. Model Classification
E : Easy model
B : Basic model

IV. Protective heigh (PH)
[Basic model]
4 figures from 0185 to 2065: PH is calculated with the following formula.
PH (mm) = 20 x (Number of beams -1) + 45

[Easy model]
4 figures from 0185 to 1105: PH is calculated with the following formula.
PH (mm) = 20 x (Number of beams -1) + 45

V. Output
P : PNP transistor output (for receiver or set of emitter and receiver)
N : NPN transistor output (for receiver or set of emitter and receiver)
– : None (for emitter)

VI. Detection capability
25 : 25 mm

VII. Emitter or Receiver
Blank : Set of Emitter and Receiver
L : Emitter
D : Receiver

VIII. Additional suffix
Blank : Standard type
Additional letter(s), number(s), and/or dash: The following specification changes are indicated by this additional suffix.
1) Cable length within maximum length specification
2) Connector-less cable/ Connector cable
3) Factory settings of the selectable functions
4) Appearance of the enclosure, and /or additional markings
5) Packaging style and/or contained accessories
6) Name of the indicators, inputs, and/or outputs

2. Factory settings of the selectable functions

1) Enabling/ disabling the EDM function, the start interlock function, and/or the reset interlock function
2) Enabling/ disabling the Muting key enable function
3) Reversing input logic of external test function
4) Changing the muting state time limit to be infinite
5) Changing the auxiliary output mode to be OSSD inverted, muting/ override state, or lockout state

Department: TR-RA/MUC
Date: 2011-06-15

ONLINE CERTIFICATIONS DIRECTORY

NIPF.E199694
Active Opto-electronic Protective Devices

Page Bottom

Active Opto-electronic Protective Devices

See General Information for Active Opto-electronic Protective Devices

OMRON CORP E199694
SAFETY STANDARDS GROUP
IAB GLOBAL QUALITY CENTER
SHIOKOJI HORIKAWA
SHIMOGYO-KU, KYOTO 600-8530 JAPAN

Control unit, Model F3SP-B1P.

Type 2 or type 4 light curtain systems+, emitters and receivers, Model F3SJ, followed by Blank or 2, followed by E or B, followed by 0185-2065, followed by N, P or -, followed by 25, may be followed by L or D, may be followed by additional suffixes.

Type 4 control unit, Model+ F3SX followed by N, E, H, M, NR, ER, HR, MR, followed by R, R1, R2, L1, L2, L4, M1, D1, P1, P2 and B1, followed by additional suffixes.

Type 2 single beam system, Model+ E3FS-10, for use only with the Model F3SX control unit.

Type 2 or type 4 light curtain, Models+ F3SJ-A or F3SJ-2A, followed by 0245-2495, followed by P or N, followed by 14, 20, 25, 30, 35, 55 or 65, may be followed by L or D, may be followed by TS, 01TS, 01T, may be followed by additional suffixes.

Model F3SJ-AM+, followed by 2-4, followed by P or N, followed by 300, 400 or 500, may be followed by L or D, may be followed by additional suffixes.

Type 2 single beam sensor, Model + E3ZS followed by T, followed by 8, followed by 1, followed by A, followed by D, L or blank, followed by additional suffixes.

Type 4 light curtain systems+, emitters and receivers, Model F3SN-A followed by xxxx, followed by P or N, followed by 12, 14, 25, 40, 55 or 70, may be followed by S, SS, H, HS or HSS, followed by L, D or blank, may be followed by additional numbers and/or letters; Model F3SH-A followed by xx, followed by P or N, followed by xx, may be followed by S or SS, followed by L, D or blank, may be followed by additional numbers and/or letters.

Type 2 light curtain systems+, emitters and receivers, Model F3SN-B followed by xxxx, followed by P or N, followed by 12, 14, 25, 40, 55 or 70, may be followed by S, SS, H, HS or HSS, followed by L, D or blank, may be followed by additional numbers and/or letters.

Type 2 light curtain systems+, emitters and receivers, Model F3SH-B followed by xx, followed by P or N, followed by xx, may be followed by S or SS, followed by L, D or blank, may be followed by additional numbers and/or letters.

Type 2 and type 4 light curtain system, Model F3SR followed by 2 or 4, followed by 30, followed by B, followed by four numbers, may be followed by L or D, may be followed by additional numbers and/or letters.

Type 4 and type 2 light curtain system, Model F3SG, followed by 2 or 4, followed by R; followed by E or A, followed by 0160-2510, followed by P, N or -, followed by 30, 14, may be followed by L or D, may be followed by additional suffixes.

End cap accessory, Model F39, followed by LP, BT or BTLP.

+ Also complies with UL 1998, the Standard for Safety Related Software.

Trademark and/or Tradename: OMRON ,

Last Updated on 2014-09-11

ONLINE CERTIFICATIONS DIRECTORY

NIPF7.E199694
Active Opto-electronic Protective Devices Certified for Canada

Page Bottom

Active Opto-electronic Protective Devices Certified for Canada

See General Information for Active Opto-electronic Protective Devices Certified for Canada

OMRON CORP E199694
SAFETY STANDARDS GROUP
IAB GLOBAL QUALITY CENTER
SHIOKOJI HORIKAWA
SHIMOGYO-KU, KYOTO 600-8530 JAPAN

Control unit, Model F3SP-B1P.

Type 2 or type 4 light curtain systems+, emitters and receivers, Model F3SJ, followed by Blank or 2, followed by E or B, followed by 0185-2065, followed by N, P or -, followed by 25, may be followed by L or D, may be followed by additional suffixes.

Type 4 control unit, Model+ F3SX, followed by N, E, H, M, NR, ER, HR, MR, followed by R, R1, R2, L1, L2, L4, M1, D1, P1, P2 and B1, followed by additional suffixes.

Type 2 single beam system, Model+ E3FS-10, for use only with the Model F3SX control unit.

Type 2 or type 4 light curtain, Models+ F3SJ-A or F3SJ-2A, followed by 0245-2495, followed by P or N, followed by 14, 20, 25, 30, 35, 55 or 65, may be followed by L or D, may be followed by TS, 01TS, 01T, may be followed by additional suffixes.

Model F3SJ-AM+, followed by 2-4, followed by P or N, followed by 300, 400 or 500, may be followed by L or D, may be followed by additional suffixes.

Type 2 single beam sensor, Model + E3ZS followed by T, followed by 8, followed by 1, followed by A, followed by D, L or blank, followed by additional suffixes.

Type 4 light curtain systems+, emitters and receivers, Model F3SN-A followed by xxxx, followed by P or N, followed by 12, 14, 25, 40, 55 or 70, may be followed by S, SS, H, HS or HSS, followed by L, D or blank, may be followed by additional numbers and/or letters; Model F3SH-A followed by xx, followed by P or N, followed by xx, may be followed by S or SS, followed by L, D or blank, may be followed by additional numbers and/or letters.

Type 2 light curtain systems+, emitters and receivers, Model F3SN-B followed by xxxx, followed by P or N, followed by 12, 14, 25, 40, 55 or 70, may be followed by S, SS, H, HS or HSS, followed by L, D or blank, may be followed by additional numbers and/or letters.

Type 2 light curtain systems+, emitters and receivers, Model F3SH-B followed by xx, followed by P or N, followed by xx, may be followed by S or SS, followed by L, D or blank, may be followed by additional numbers and/or letters.

Type 2 and type 4 light curtain system, Model F3SR followed by 2 or 4, followed by 30, followed by B, followed by four numbers, may be followed by L or D, may be followed by additional numbers and/or letters.

Type 4 and type 2 light curtain system, Model F3SG, followed by 2 or 4, followed by R; followed by E or A, followed by 0160-2510, followed by P, N or -, followed by 30, 14, may be followed by L or D, may be followed by additional suffixes.

End cap accessory, Model F39, followed by LP, BT or BTLP.

+ Also complies with UL 1998, the Standard for Safety Related Software.

Trademark and/or Tradename: OMRON and/or Sti

Last Updated on 2014-09-11

OMRON
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OMRON ELECTRONICS DE MEXICO • HEAD OFFICE
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OMRON ELECTRONICS DE MEXICO • SALES OFFICE
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