

Note Concerning the CE Marking

This document does not guarantee that a mechanical system including this product will comply with the following standards. Compliance to EMC directive and LVD directive of the entire mechanical system should be checked by the user / manufacturer. For more details please contact the local Mitsubishi Electric sales site.

Programmable logic controllers are open-type devices that must be installed and used within conductive control boxes. Please use the FX2N Series programmable logic controllers while installed in conductive shielded control boxes. Please secure the control box lid to the control box (for conduction). Installation within a control box greatly affects the safety of the system and aids in shielding noise from the programmable logic controller.

EMC

The following products have shown compliance through direct testing (of the identified standards below) and design analysis (through the creation of a technical construction file) to the European Directive for Electromagnetic Compatibility (2004/108/EC) when used as directed by the appropriate documentation.

Refer to a manual or related material of each product other than the following.

Attention

- This product is designed for use in industrial applications.

Note

- Authorized Representative in the European Community:
Mitsubishi Electric Europe B.V.
Gothaer Str. 8, 40880 Ratingen, Germany

Type : Programmable Controller (Open Type Equipment)

Models : MELSEC FX2N series manufactured

from July 1st, 1997	FX2N-☆☆MR-ES/UL	FX2N-☆☆MT-ESS/UL
	Where ☆☆ indicates:16,32,48,64,80,128	
	FX2N-★★ER-ES/UL	FX2N-★★ET-ESS/UL
	Where ★★ indicates:32,48	
	FX2N-16EX-ES/UL	FX2N-16EYR-ES/UL
	FX2N-232-BD	FX2N-485-BD
	FX2N-8AV-BD	FX2N-422-BD
		FX2N-8AV-IF
from April 1st, 1998	FX2N-□□MR-DS	FX2N-□□MT-DSS
	Where □□ indicates:32,48,64,80	
	FX2N-48ER-DS	FX2N-48ET-DSS
from August 1st, 1998	FX2N-ΔΔMR-UA1/UL	Where ΔΔ indicates:16,32,48,64
	FX2N-16MR-DS	FX2N-16MT-DSS
		FX2N-48ER-UA1/UL
from July 1st, 2001	FX2N-ROM-E1	
from August 1st, 2005	FX2N-8ER-ES/UL	FX2N-8EX-ES/UL
	FX2N-8EYR-ES/UL	FX2N-8EYT-ESS/UL
from September 1st, 2010	FX2N-8EYR-S-ES/UL	

LVD

The following products have shown compliance through direct testing (of the identified standards below) and design analysis (through the creation of a technical construction file) to the European Directive for Low Voltage (2006/95/EC) when used as directed by the appropriate documentation.

Refer to a manual or related material of each product other than the following.

- Type : Programmable Controller (Open Type Equipment)
- Models : MELSEC FX2N series manufactured
- from July 1st, 1997 FX2N-☆☆MR-ES/UL FX2N-☆☆MT-ESS/UL
 Where ☆☆ indicates:16,32,48,64,80,128
 FX2N-★★ER-ES/UL FX2N-★★ET-ESS/UL
 Where ★★ indicates:32,48
 FX2N-16EYR-ES/UL
 - from April 1st, 1998 FX2N-□□MR-DS
 Where □□ indicates:32,48,64,80
 FX2N-48ER-DS
 - from August 1st, 1998 FX2N-△△MR-UA1/UL
 Where △△ indicates:16,32,48,64
 FX2N-16MR-DS FX2N-48ER-UA1/UL
 - from August 1st, 2005 FX2N-8ER-ES/UL FX2N-8EYR-ES/UL
 - from September 1st, 2010 FX2N-8EYR-S-ES/UL

For the products above, PLCs manufactured
 before March 31st, 2002 are compliant with IEC1010-1
 from April 1st, 2002 to April 30th, 2006 are compliant with EN61131-2:1994+A11:1996+A12:2000
 after May 1st, 2006 are compliant with EN61131-2:2007

Standard		Remark
IEC1010-1:1990 /A1:1992	Safety requirements for electrical equipment for measurement, control, and laboratory use - General requirements	The equipment has been assessed as a component for fitting in a suitable enclosure which meets the requirements of IEC 1010-1:1990+A1:1992
EN61131-2:1994 /A11:1996 /A12:2000	Programmable controllers - Equipment requirements and tests	The equipment has been assessed as a component for fitting in a suitable enclosure which meets the requirements of EN61131-2:1994+A11:1996+A12:2000
EN61131-2:2007	Programmable controllers - Equipment requirements and tests	The equipment has been assessed as a component for fitting in a suitable enclosure which meets the requirements of EN61131-2:2007

- Models : MELSEC FX0N series manufactured
- from November 1st, 1995 FX0N-8EX-ES, FX0N-8EYR-ES, FX0N-8EYT-ESS
 - from February 1st, 1996 FX0N-8ER-ES, FX0N-16EX-ES, FX0N-16EYR-ES, FX0N-16EYT-ESS
 - from April 1st, 1996 FX0N-8ER-ES/UL, FX0N-16EX-ES/UL, FX0N-16EYR-ES/UL,
 FX0N-16EYT-ESS/UL
 - from July 1st, 1996 Harmonized Products
 FX0N-8EX-ES/UL,
 FX0N-8EYR-ES/UL, FX0N-8EYT-ESS/UL

Standard		Remark
IEC1010-1:1990 /A1:1992 /A2:1995 BSEN61010-1 :1993 * /A2:1995	Safety requirements for electrical equipment for measurement, control, and laboratory use	The equipment has been assessed as a component for fitting in a suitable enclosure which meets the requirements of IEC 1010-1:1990,A1:1992 and A2:1995(BSEN61010-1 :1993 and A2:1995)

* Compliance to BSEN61010-1 and Amendment2 is claimed through virtue of direct compliance to IEC1010-1, Amendment 1 and Amendment 2.

Table 1.3: **ENG** ☞ Powered extension units
FRE ☞ Appareils d'extension alimentés en tension
GER ☞ Spannungsversorgte Erweiterungsgeräte
ITL ☞ Apparecchi di ampliamento con alimentazione di tensione
ESP ☞ Unidades de ampliación con alimentación de tensión

MODEL	INPUTS		OUTPUT TYPE			POWER SUPPLY	DIMENSIONS mm (inch)			MASS (WEIGHT) kg (lbs)
	QTY	TYPE	QTY	RELAY	TRANSISTOR					
FX2N-32	16	24V DC	16	ER-ES/UL	ET-ESS/UL (Source)	100-240V AC +10%, -15%, 50/60Hz	150 (5.91)	90 (3.55)	87 (3.43)	0.65 (1.43)
FX2N-48	24	Sink/Source	24				182 (7.17)			0.85 (1.87)
FX2N-48	24	110V AC	24	ER-UA1/UL	220 (8.67)		1.00 (2.20)			
FX2N-48	24	24V DC Sink/Source	24	ER-DS	ET-DSS (Source)		24V DC +20%, -30%			182 (7.17)

Table 1.4: **ENG** ☞ Extension blocks
FRE ☞ Modules d'extension
GER ☞ Erweiterungsmodule
ITL ☞ Moduli di ampliamento
ESP ☞ Módulos de ampliación

MODEL	INPUTS		OUTPUTS			DIMENSIONS mm (inch)			MASS (WEIGHT) kg (lbs)	
	QTY	TYPE	QTY	DEVICE	TYPE					
FX0N-8EX-UA1/UL FX2N-8EX-UA1/UL	8	110V AC inputs				43 (1.70)	90 (3.55)	87 (3.43)	0.20 (0.44)	
FX0N-8EX-ES/UL FX2N-8EX-ES/UL		Sink/Source 24V DC								
FX0N-8ER-ES/UL FX2N-8ER-ES/UL	4	4	Relay		40 (1.58)					0.30 (0.66)
FX0N-8EYR-ES/UL FX2N-8EYR-ES/UL					8					
FX2N-8EYR-S-ES/UL			8	Transistor	Source					
FX0N-16EX-ES/UL	16	Sink/Source 24V DC				70 (2.76)			0.30 (0.66)	
FX0N-16EYR-ES/UL										16
FX0N-16EYT-ESS/UL			16	Transistor	Source					
FX2N-16EX-ES/UL	16	Sink/Source 24V DC				40 (1.58)			0.30 (0.66)	
FX2N-16EYR-ES/UL										16
FX2N-16EYT-ESS/UL			16	Transistor	Source					

1.5 Configuration

(ENG)

Configuration

(ITL)

Struttura del sistema

(FRE)

Configuration du système

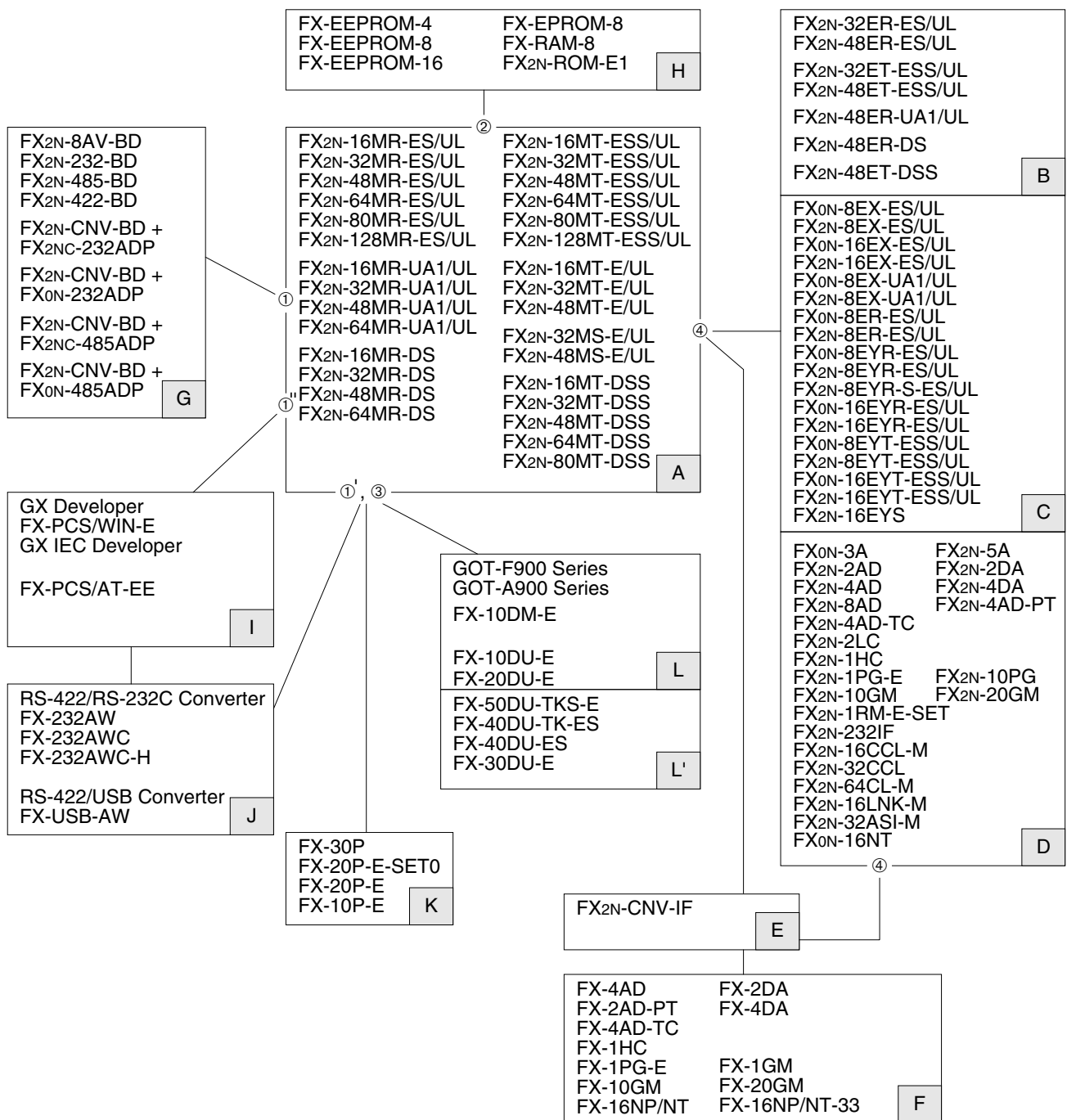
(ESP)

Configuración del sistema

(GER)

Systemaufbau

Figure 1.6: *ENG* Schematic system
FRE Représentation schématique de la construction du système
GER Schematischer Systemaufbau
ITL Struttura schematica del sistema
ESP Configuración esquemática del sistema



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