

8000 2/x System specification

System specification

MECHANICAL

Mounting method.....Flat panel or DIN-rail
DIN-rail types‘Top hat’, 35 x 7.5 mm to EN 50022
or 35 x 15 mm to EN 50022
or G-section, to EN 50035

RAILBUS (Backplane)

Maximum physical length* of node.....6.8 m
Maximum number of extender cables3

* overall, including backplanes and extender cables

NODE SIZE

BIM/Controller type	Module limit
8502-BI-DP	32 max.
8505-BI-MB	32 max.
8521-xx-MT	64 max.

Note: I/O module carriers used with these must conform to the same module address limits. See I/O module carrier datasheets for details.

ELECTRICAL

EMC compliance.....To BS EN 61326:1998
Electrical safety..... EN 61010-1

ISOLATION

I/O Modules - 2/2

Between isolated channels....250 V ac rms (to EN 61010-1)
(Tested at 2.3 kV ac rms)

Channel (any) to Railbus.....250 V ac rms
 (Except where stated on individual module specifications)

I/O Modules - 2/1

Between hazardous area terminals and Railbus60 V ac rms
 Between IS field circuits of separate I/O modules† ...500 V ac rms
 Between any IS field circuit & non-IS field circuit250 V ac rms
 Between individual channels of an I/O module
refer to individual module specifications

† 60 second test

ENVIRONMENTAL

Ambient temp

Operating, optimum orientation *- 40°C to + 70°C
 (except where stated in individual module specifications)
 Operating, non-optimum orientation *- 40°C to + 50°C
 (except where stated in individual module specifications)
 Storage.....- 40°C to + 85°C

* Optimum orientation is when the carrier is mounted in a vertical plane with field terminals located below the modules.

Relative Humidity.....5 to 95% RH (non-condensing)

Ingress Protection.....IP20 to BS EN60529:1992
 (Additional protection by means of enclosure)

Corrosive atmospheres: Designed to meet ten year service in Class G3 corrosive environment, as defined by ISA Standard SP71.04.

Vibration - Storage & Transport	
EN 60068-2-6 (Sinusoidal Vibration)	10-500 Hz. 5 g for surface mounting, 1 g for DIN-rail mounting
BS2011:Part 2.1 (Random Vibration)	20-500 Hz 5 g for surface mounting 1 g for DIN-rail mounting

Vibration - Operating	
EN 60068-2-6 (Sinusoidal Vibration)	10-500 Hz. 5 g for surface mounting, 1 g for DIN-rail mounting
BS2011:Part 2.1 (Random Vibration)	20-500 Hz 5 g for surface mounting 1 g for DIN-rail mounting

Shock - Storage & Transport	
EN 60068-2-32	1 m drop onto flat concrete,

Shock - Operating	
EN 60068-2-27	30 g peak acceleration with 11 ms pulse width

IMPORTANT

Users are strongly recommended to refer to the System Specifier’s Guide (SSG8002) when designing a new system



GE Fanuc Intelligent Platforms

1 800 GEFANUC
 1 800 322 3616
 1 434 978 5100

Global Regional phone numbers
 are available on our website
www.gefanuc.com

8000 2/x System specification

System specification

HAZARDOUS AREA APPROVALS - 2/2 NODE

8000 node equipment location*Safe area or
.....Zone 2, IIC T4 hazardous area or
.....Class 1, Div 2, Groups A-D, T4 hazardous location
***except for 8101-HI-TX, 8103-AI-TX and 8119-VI-05**
.....Safe area or
Zone 2, IIC T4 ($T_{amb} = 60^{\circ}\text{C}$), T3 ($T_{amb} = 70^{\circ}\text{C}$), hazardous area or
.....Class 1, Div 2, Groups A-D, T4 ($T_{amb} = 60^{\circ}\text{C}$),
.....T3 ($T_{amb} = 70^{\circ}\text{C}$) hazardous location

Field equipment and wiring location

.....Safe area or
.....Zone 2, IIC hazardous area or
.....Class 1, Div 2, Groups A-D hazardous location
(Temperature classification will be determined by the field apparatus)

HAZARDOUS AREA APPROVALS - 2/1 NODE

8000 node equipment locationSafe area or
.....Zone 2, IIC T4 hazardous area or
.....Class 1, Div 2, Groups A-D, T4 hazardous location

Field equipment and wiring location

.....Zone 0, IIC hazardous area or
.....Class 1, Div 1, Groups A-D hazardous location
(Temperature classification will be determined by the field apparatus)

Applicable standards:

- ◆ Factory Mutual Research Co., Class No. 3611 for Class I, Division 2, Groups A, B, C, D hazardous locations
- ◆ Factory Mutual Research Co., Class No. 3610 for Class I, II, III, Division 1, 2 Groups A-G hazardous locations
- ◆ EN 50014: 1992 Electrical apparatus for potentially explosive atmospheres, general requirements
- ◆ EN 50020: 1995 Electrical apparatus for potentially explosive atmospheres, intrinsically safe "i"
- ◆ EN 50021: 1999 Electrical apparatus for potentially explosive atmospheres, type of protection "n"
- ◆ EC Directive 94/9/EC (ATEX 100A)

LOCAL AREA NETWORK

Fieldbus protocols supportedModbus (RTU mode)
.....Profibus - DP

Note

1. Protocols are selected by choice of Bus Interface Module
2. For other protocols consult GE Fanuc

Configuration

- 1) via host LAN (if supported by LAN)
- 2) via PC connected locally at configuration port

Node address settingSoftware settable in the BIM

LAN physical medium (configurable on carrier)

LAN ARS485 or RS422, 5- wire

LAN B (where available).....RS485 or RS422, 5- wire

LAN isolation

LAN A to LAN B (if applicable).....250 V ac

LAN A or B to system ground250 V ac (to EN 61010)

POWER SUPPLIES

System Supply

Local supply input18.5 - 36 V dc input

Supply redundancy supported

Railbus supply voltage12 V dc \pm 5%

IMPORTANT

Users are strongly recommended to refer to the System Specifier's Guide (SSG8002) when designing a new system



GE Fanuc Intelligent Platforms

1 800 GEFANUC
1 800 322 3616
1 434 978 5100

Global Regional phone numbers
are available on our website
www.gefanuc.com

8000 2/x System specification

2/2 module cable parameters for non-incendive field wiring

Note

For module types 8109-DI-DC and 8122-DI-DC, each pair of field terminals may be considered as non-incendive when connected into a field circuit with the following parameters:

$$V_{\max} = 30 \text{ V dc} \quad I_{\max} = 100 \text{ mA.}$$

The values of capacitance and inductance seen at the module's input terminals are:

$$C_i = 0 \text{ } \mu\text{F} \quad L_i = 0 \text{ mH.}$$

Module (each channel)	FM		
	Gas Group	C _a (μF)	L _a (mH)
8101-HI-TX	A+B	0.17	11
	C	0.51	33
	D	1.36	88
8102-HO-IP	A+B	0.17	11
	C	0.51	33
	D	1.36	88
8103-AI-TX	A+B	0.17	11
	C	0.51	33
	D	1.36	88
8104-AO-IP	A+B	0.17	11
	C	0.51	33
	D	1.36	88
8105-TI-TC	A+B	14.9	1000
	C	44.8	1000
	D	119.6	1000
8106-TI-RT	A+B	14.9	1000
	C	44.8	1000
	D	119.6	1000
8110-DI-DC	A+B	0.12	151
	C	0.36	544
	D	0.97	1000
8119-VI-05	A+B	0.17	11
	C	0.51	33
	D	1.36	88
8121-DI-DC	A+B	0.12	1000
	C	0.36	1000
	D	0.97	1000
8123-PI-QU	A+B	1000	1000
	C	1000	1000
	D	1000	1000

For the latest certification information visit : www.gefanuc.com



GE Fanuc Intelligent Platforms

1 800 GEFANUC
1 800 322 3616
1 434 978 5100

Global Regional phone numbers
are available on our website
www.gefanuc.com

8000 2/x System specification

2/1 module cable parameters for IS field wiring

Module (each channel)	BASEEFA				FM		
	Gas Group	μF	mH	or $\mu\text{H}/\Omega$	Gas Group	C_a (μF)	L_a (mH)
8201-HI-IS	IIC	0.083	4.3	56	A+B	0.14	4.38
	IIB	0.65	17.72	210	C	0.43	17.2
	IIA	2.15	36.02	444	D	1.14	34.2
8202-HO-IS	IIC	0.116	4.3	64	-	-	-
	IIB	0.87	17.7	239	-	-	-
	IIA	3.12	36	505	-	-	-
8204-AO-IS	IIC	0.136	4.80	71	A+B	0.21	4.67
	IIB	1.00	19.61	265	C	0.64	18.3
	IIA	3.60	40.04	558	D	1.70	36.5
8205-TI-IS	Channels 1, 2, 3, 4, 7 and 8 wired as separate IS circuit						
	IIC	0.41	5.8	62	A+B	0.41	8.5
	IIB	2.49	23.8	227	C	2.44	32.4
	IIA	9.98	49.1	480	D	9.98	69.2
	Channels 5 and 6 wired as separate IS circuit						
	IIC	100	1000	1100	A+B	1000	1000
	IIB	100	1000	1100	C	1000	1000
IIA	100	1000	1100	D	1000	1000	
8206-TI-IS	IIC	0.389	0.39	20	A+B	0.39	0.3
	IIB	2.47	1.5	90	C	2.47	1.3
	IIA	9.96	4.2	182	D	9.96	2.42
8215-DO-IS	IIC	0.11	3.08	53	A+B	0.19	3.15
	IIB	0.84	13.02	205	C	0.56	12.5
	IIA	2.97	26.12	432	D	1.51	24.5
8220-DI-IS	IIC	2.41	175	983	A+B	2.67	176
	IIB	16.80	680	1333	C	8.00	633
	IIA	75.00	1000	1333	D	21.3	1000
8223-PI-IS	IIC	0.078	1.28	15	A+B	1000	10.6
	IIB	0.627	3.86	56	C	1000	40.4
	IIA	2.05	10.29	119	D	1000	87.1
8230-AI-IS	IIC	0.47	87.5	334	-	-	-
	IIB	2.88	328	952	-	-	-
	IIA	11.6	633	952	-	-	-

For the latest certification information visit: www.gefanuc.com



GE Fanuc Intelligent Platforms

1 800 GEFANUC
1 800 322 3616
1 434 978 5100

Global Regional phone numbers
are available on our website
www.gefanuc.com

8000 2/x System specification

Characterisation errors for module 8205-TI-IS

Thermocouple type	Characterisation error	Temperature range
B	+ 0 to - 42 °C + 0.3 to - 0.6 °C + 0.1 to - 0.11 °C ± 0.06 °C ± 0.11 °C	0 to + 42 °C + 42 to + 109 °C + 109 to + 200 °C + 200 to + 1000 °C + 1000 to + 1820 °C
E	+ 0.45 to - 0.1 °C + 0.05 to - 0.07 °C ± 0.04 °C	- 270 to - 264 °C - 264 to - 237 °C - 237 to + 1000 °C
J	± 0.04 °C	- 210 to + 1200 °C
K	+ 0 to - 2.0 °C ± 0.15 °C ± 0.06 °C ± 0.04 °C	- 270 to - 265 °C - 265 to - 200 °C - 200 to - 100 °C - 100 to + 1372 °C
N	+ 0 to - 2.3 °C ± 0.15 °C ± 0.06 °C ± 0.04 °C	- 270 to - 265 °C - 265 to - 200 °C - 200 to - 100 °C - 100 to + 1372 °C
R	+ 0.72 to - 0 °C ± 0.06 °C ± 0.04 °C	- 50 to - 49 °C - 49 to + 1 °C + 1 to +1768.1 °C
S	+ 0.92 to - 0 °C ± 0.04 °C	- 50 to - 49 °C - 49 to + 1768.1 °C
T	+ 0 to - 2.0 °C ± 0.04 °C	- 270 to - 265 °C - 265 to + 400 °C
W3	± 0.06 °C	0 to + 2315 °C
W5	± 0.055 °C	0 to + 2315 °C
Russian K	+ 0.25 to - 0 °C ± 0.04 °C	- 200 to - 199 °C - 199 to +1300 °C
Russian L	± 0.032 °C	- 200 to + 800 °C

8000 2/x System specification

2/2 system approvals for mounting and field wiring

Part numbers & descriptions	Standard Approved for	EUROPE		USA (FM)	CANADA (CSA)
		prEN50021 & EN50021 ¹		Class No. 3611	C22.2 No.213
		Zone 2 installation and field wiring ATEX Category II 3 G		Div 2 installation non-incendive apparatus suitable for installation in Class 1, Div 2, Grps A-D	Div 2 installation non-incendive apparatus suitable for installation in Class 1, Zone 2/Div 2, Grp IIC
I/O modules	Class	Code	Certificate Nos.	Certificate Nos.	Certificate Nos.
8101-HI-TX 8-channel AI, 4-20mA with HART	Non-incendive ²	EEx n L IIC T3 ³	MTL00ATEX8101	1B3A9.AX	152423-2500007251
8102-HO-IP 8-channel AO, 4-20mA with HART	Non-incendive ²	EEx n L IIC T4	MTL00ATEX8102	1B3A9.AX	152423-2500007251
8103-AI-TX 8-channel AI, 4-20mA	Non-incendive ²	EEx n L IIC T3 ³	MTL00ATEX8103	1B3A9.AX	152423-2500007251
8104-AO-IP 8-channel AO, 4-20mA	Non-incendive ²	EEx n L IIC T4	MTL00ATEX8104	1B3A9.AX	152423-2500007251
8105-TI-TC 4-channel THC/mV input	Non-incendive ²	EEx n L IIC T4 ¹	MTL98ATEX8105	1B3A9.AX	152423-2500007251
8106-TI-RT 4-channel RTD input	Non-incendive ²	EEx n L IIC T4 ¹	MTL98ATEX8106	1B3A9.AX	152423-2500007251
8109-DI-DC 8-channel DI, 24V dc isolated, sinking	Non-incendive ²	EEx n L IIC T4 ¹	MTL98ATEX8109	1B3A9.AX	152423-2500007251
8110-DI-DC 8-channel DI, 24V dc non-isolated, module-powered	Non-incendive ²	EEx n L IIC T4 ¹	MTL98ATEX8110	1B3A9.AX	152423-2500007251
8111-DI-AC 8-channel DI, 115V ac isolated, sinking	Non-arcing	EEx n VL IIC T4 ¹	MTL98ATEX8111	1B3A9.AX	152423-2500007251
8112-DI-AC 8-channel DI, 115V ac non-isolated, module-powered	Non-arcing	EEx n VL IIC T4 ¹	MTL98ATEX8112	1B3A9.AX	152423-2500007251
8113-DI-AC 8-channel DI, 230V ac isolated, sinking	Non-arcing	EEx n VL IIC T4 ¹	MTL98ATEX8113	1B3A9.AX	152423-2500007251
8114-DI-AC 8-channel DI, 230V ac non-isolated, module-powered	Non-arcing	EEx n VL IIC T4 ¹	MTL98ATEX8114	1B3A9.AX	152423-2500007251
8115-DO-DC 8-channel DO, 2-60V dc non-isolated, module-powered	Non-arcing	EEx n VL IIC T4 ¹	MTL98ATEX8115	1B3A9.AX	152423-2500007251
8116-DO-AC 8-channel DO, 20-250V ac non-isolated, module-powered	Non-arcing	EEx n VL IIC T4 ¹	MTL98ATEX8116	1B3A9.AX	152423-2500007251
8117-DO-DC 8-channel DO, 2-60V dc isolated, unpowered	Non-arcing	EEx n VL IIC T4 ¹	MTL98ATEX8117	1B3A9.AX	152423-2500007251
8118-DO-AC 8-channel DO, 20-250V ac isolated, unpowered	Non-arcing	EEx n VL IIC T3 ^{1&3}	MTL98ATEX8118	1B3A9.AX	152423-2500007251
8119-VI-05 8-channel AI, 1-5V dc	Non-incendive ²	EEx n L IIC T3 ³	MTL00ATEX8119	1B3A9.AX	152423-2500007251
8121-DI-DC 16-channel DI, 24V dc non-isolated, module-powered	Non-incendive ²	EEx n L IIC T4	MTL00ATEX8121	1B3A9.AX	152423-2500007251
8122-DI-DC 16-channel DI, 24V dc isolated, sinking	Non-incendive ²	EEx n L IIC T4	MTL00ATEX8122	1B3A9.AX	152423-2500007251
8123-PI-QU 2-channel, pulse/quadrature input	Non-incendive ²	EEx n L IIC T4	MTL01ATEX8123X	1B3A9.AX	152423-2500007251

Note 1 EN50021 was available only in draft form (pr) when this apparatus was certified. When EN50021 was finally published, the designation EEx nV had been changed to EEx nA for non-arcing apparatus. EEx nV is equivalent to EEx nA.

Note 2 In Europe, the preferred term is "Energy Limited". See EN50021.

Note 3 For +60°C the T class may be reduced to T4. T3 only applies for an ambient temperature of +70°C.

Note 4 These products are listed in the document 8000-1 "ATEX Documentation for ancillary components used with the 8000 Zone 2 System".

For the latest certification information visit: www.gefanuc.com



GE Fanuc Intelligent Platforms

1 800 GEFANUC
1 800 322 3616
1 434 978 5100

Global Regional phone numbers
are available on our website
www.gefanuc.com

8000 2/x System specification

2/2 system approvals for mounting and field wiring

Part numbers & descriptions	Standard	EUROPE		USA (FM)	CANADA (CSA)
		prEN50021 & EN50021 ¹		Class No. 3611	C22.2 No.213
		Zone 2 installations and field wiring ATEX Category II 3 G		Div 2 installation non-incendive apparatus suitable for installation in Class 1, Zone 2, Grp IIC	Div 2 installation non-incendive apparatus suitable for installation in Class 1, Zone 2/Div 2, Grp IIC
<i>Field Terminals</i>	Class	Code	Certificate Nos.	Certificate Nos.	Certificate Nos.
8601-FT-NI field terminal, non-incendive - unfused	-		See note 4	1B3A9.AX	152423-2500007251
8602-FT-ST field terminal, standard - unfused	-		See note 4	1B3A9.AX	152423-2500007251
8603-FT-FU field terminal, non-incendive - fused	-		See note 4	1B3A9.AX	152423-2500007251
8604-FT-FU field terminal, standard - fused	-		See note 4	1B3A9.AX	152423-2500007251
8605-FT-TC field terminal RTD	-		See note 4	1B3A9.AX	152423-2500007251
8606-FT-RT field terminal thermocouple	-		See note 4	1B3A9.AX	152423-2500007251
8610-FT-NA field terminal, non-arcing - unfused	-		See note 4	1B3A9.AX	152423-2500007251
8611-FT-FU field terminal, non-arcing - fused	-		See note 4	1B3A9.AX	152423-2500007251
8615-FT-4W field terminal, 4-wire transmitter	-		See note 4	1B3A9.AX	152423-2500007251
8617-FT-NI field terminal, 16-channel	-		See note 4	1B3A9.AX	152423-2500007251
<i>BIMs</i>					
8410-NS-PS power supply monitor module	-	EEx nL IIC T4	MTL02ATEX8410X01	1B3A9.AX	
8502-BI-DP Profibus-DP BIM	-	EEx nVL IIC T4 ¹	MTL99ATEX8502	1B3A9.AX	152423-2500007251
8505-BI-MB Modbus BIM	-	EEx nVL IIC T4 ¹	MTL98ATEX8505	1B3A9.AX	152423-2500007251
8512-IF-HA HART interface module	-	EEx nA IIC T4	MTL00ATEX8512	1B3A9.AX	152423-2500007251
8510-MO-NS Node services module	-	EEx nL IIC T4	MTL01ATEX8510X	1B3A9.AX	
8521-xx-xx Process Controller/EBIM - see Note 5	-	EEx nL IIC T5	MTL02ATEX8521X	1B3A9.AX	
<i>Power Supply</i>					
8910-PS-DC power supply, 18-36 V dc input	-	EEx nVL IIC T4 ¹	MTL98ATEX8910	1B3A9.AX	152423-2500007251
8913-PS-AC power supply, 85-264 V ac input, 12/24 V dc output		II3G EEx n A II T4	TÜV01ATEX1774X	3011821	
8914-PS-AC power supply, 84-264 V ac input, 24 V dc output		II3G EEx n A II T4	TÜV01ATEX1774X	3011821	
<p>Note 1 EN50021 was available only in draft form (pr) when this apparatus was certified. When EN50021 was finally published, the designation EEx nV had been changed to EEx nA for non-arcing apparatus. EEx nV is equivalent to EEx nA.</p> <p>Note 2 In Europe, the preferred term is "Energy Limited". See EN50021.</p> <p>Note 3 For +60°C the T class may be reduced to T4. T3 only applies for an ambient temperature of +70°C.</p> <p>Note 4 These products are listed in the document 8000-1 "ATEX Documentation for ancillary components used with the 8000 Zone 2 System".</p> <p>Note 5 The -xx-xx indicates a range of modules with the same initial digits in the part number</p>					

For the latest certification information visit: www.gefanuc.com



GE Fanuc Intelligent Platforms

1 800 GEFANUC
1 800 322 3616
1 434 978 5100

Global Regional phone numbers
are available on our website
www.gefanuc.com

8000 2/x System specification

2/2 system approvals for mounting and field wiring

Part numbers & descriptions	Standard	EUROPE		USA (FM)	CANADA (CSA)
		Approved for	prEN50021 & EN50021 ¹	Class No. 3611	C22.2 No.213
<i>Carriers</i>	Zone 2 installations and field wiring ATEX Category II 3 G	Div 2 installation non-incendive apparatus suitable for installation in Class 1, Zone 2, Grp IIC	Div 2 installation non-incendive apparatus suitable for installation in Class 1, Zone 2/Div 2, Grp IIC	Certificate Nos.	
				Class	Code
8707-CA-08 8-module carrier	-		See note 4	1B3A9.AX	152423-2500007251
8709-CA-08 8-module carrier	-		See note 4	1B3A9.AX	
8710-CA-04 4-module carrier	-		See note 4	1B3A9.AX	152423-2500007251
8711-CA-NS node services carrier, screw terminal LAN	-		See note 4	1B3A9.AX	152423-2500007251
8712-CA-NS node services carrier, sub-D terminal LAN	-		See note 4	1B3A9.AX	152423-2500007251
8715-CA-BI universal BIM carrier	-		See note 4	1B3A9.AX	152423-2500007251
8717-CA-PS 8910-PS-DC power supply carrier	-		See note 4		
8718-CA-NS BIM + node services module carrier	-		See note 4	1B3A9.AX	
8750-CA-NS redundant controller and power fail module carrier	-		See note 4	1B3A9.AX	
<i>Carrier Extenders</i>					
8020-CE-RH carrier extender, right-hand	-		See note 4	1B3A9.AX	152423-2500007251
8021-CE-LH carrier extender, left-hand	-		See note 4	1B3A9.AX	152423-2500007251
<i>Extender Cables</i>					
8001-CC-35 signal extension cable,0.35m	-		See note 4	1B3A9.AX	152423-2500007251
8002-CC-85 signal extension cable,0.85m	-		See note 4	1B3A9.AX	152423-2500007251
8003-CC-12 signal extension cable,1.2m	-		See note 4	1B3A9.AX	152423-2500007251
<p>Note 1 EN50021 was available only in draft form (pr) when this apparatus was certified. When EN50021 was finally published, the designation EEx nV had been changed to EEx nA for non-arcing apparatus. EEx nV is equivalent to EEx nA.</p> <p>Note 2 In Europe, the preferred term is "Energy Limited". See EN50021.</p> <p>Note 3 For +60°C the T class may be reduced to T4. T3 only applies for an ambient temperature of +70°C.</p> <p>Note 4 These products are listed in the document 8000-1 "ATEX Documentation for ancillary components used with the 8000 Zone 2 System".</p>					

For the latest certification information visit: www.gefanuc.com



GE Fanuc Intelligent Platforms

1 800 GEFANUC
1 800 322 3616
1 434 978 5100

Global Regional phone numbers
are available on our website
www.gefanuc.com

8000 2/x System specification

2/1 system approvals for mounting and field wiring

Standard Approved for Part numbers & descriptions <i>I/O modules</i>	EUROPE				USA (FM)		CANADA (CSA)	
	prEN50021 & EN50021 ¹		EN50014:1997 & EN50020 ² :1994		Class No. 3611	Class No. 3610	CAN/CSA E79-15-95	CAN/CSA E79-11-95
	Zone 2 installations ATEX Category II 3 G		IS field wiring ATEX Category II [1] G		Div 2 installation Non-incendive apparatus suitable for installation in Class 1, Div 2, Grps A-D	IS field wiring IS field terminals for Classes, I,II,III, Grps A-G	Div 2 installation non-sparking apparatus suitable for installation in Class 1, Zone 2/Div 2, Grp IIC	IS field wiring for Class I, Zones 0,1, Grp IIC
	Code	Certificate Nos.	Code	Certificate Nos.	Certificate Nos.	Certificate Nos.		
8201-HI-IS 8-channel, AI, 4-20 mA with HART	EEx n L IIC T4	MTL99ATEX8201	[EEx ia] IIC	BAS98 ATEX 7207U	3001345	2000 152423-1000846X /Ex n A [ia] IIC T4		
8202-HO-IS 8-channel, AO, 4-20mA with HART	EEx n L IIC T4	MTL01ATEX8202X	[EEx ia] IIC	BAS01 ATEX 7185U	3001345			
8204-AO-IS 8-channel, AO, 4-20 mA	EEx n L IIC T4	MTL99ATEX8204	[EEx ia] IIC	BAS98 ATEX 7205U	3001345	2000 152423-1000846X /Ex n A [ia] IIC T4		
8205-TI-IS 8-channel, THC/mV input	EEx n L IIC T4	MTL00ATEX8205X	[EEx ia] IIC	BAS99 ATEX 7316U	3001345	TBA		
8206-TI-IS 8-channel, RTD input	EEx n L IIC T4	MTL00ATEX8206	[EEx ia] IIC	BAS99 ATEX 7316U	3001345	TBA		
8215-DO-IS 4-channel, DO, solenoid driver, IIC gas groups	EEx n L IIC T4	MTL99ATEX8215	[EEx ia] IIC	BAS98 ATEX 7204U	3001345	2000 152423-1000846X /Ex n A [ia] IIC T4		
8220-DI-IS 16-channel, DI, switch/proximity detector	EEx n L IIC T4	MTL99ATEX8220	[EEx ia] IIC	BAS98 ATEX 7206U	3001345	2000 152423-1000846X /Ex n A [ia] IIC T4		
8223-PI-IS 2-channel, pulse/frequency input	EEx n L IIC T4	MTL02ATEX8223X	[EEx ia] IIC	BAS00 ATEX 7202U	300807			
8230-AI-IS 8-channel, AI, 0-10V/potentiometer	EEx n L IIC T4	MTL02ATEX8230X	[EEx ia] IIC	BAS01 ATEX 7346U	3011951			
Field Terminals								
8621-FT-IS IS standard		See note 6	[EEx ia]	BAS98ATEX 7211U	3001345	2000 152423-1000846X		
8622-FT-IS IS loop disconnect		See note 6	[EEx ia]	BAS98ATEX 7211U	3001345	2000 152423-1000846X		
8623-FT-IS IS 16-channel		See note 6	[EEx ia]	BAS98ATEX 7211U	3001345	2000 152423-1000846X		
8624-FT-IS IS 16-channel, DI, loop disconnect		See note 6	[EEx ia]	BAS98ATEX 7211U	3001345	2000 152423-1000846X		
8625-FT-IS IS THC		See note 6	[EEx ia]	BAS98ATEX 7211U	3001345	2000 152423-1000846X		
8626-FT-IS IS RTD		See note 6	[EEx ia]	BAS98ATEX 7211U	3001345	2000 152423-1000846X		
Railbus isolator								
8922-RB-IS Railbus isolator module	EEx n L IIC T4	MTL99ATEX8922	[EEx ia]	BAS98ATEX 7208U	3001345	2000 152423-1000846X / Ex n A IIC T4		
Power supply								
8920-PS-DC IS Power supply, 18-36 V dc input	EEx n V IIC T4	MTL99ATEX8920 ⁴	[EEx ia]	BAS98ATEX 7209U	3001345	2000152423-1000846X / Ex n A IIC T4		
<p>Note 1 Applies to railbus interface</p> <p>Note 2 The railbus interface and I/O field wiring are covered by a single certificate. The railbus interface code is ExnA.</p> <p>Note 3 The railbus interface and I/O field wiring are covered by a single certificate and no distinction is made between non-incendive and non-arcing railbus interface connections.</p> <p>Note 4 EN50021 was available only in draft form when this apparatus was certified. When EN50021 was finally published, the designation EEx nV had been changed to EEx nA for non-arcing apparatus. EEx nV is equivalent to EEx nA.</p> <p>Note 5 BASEEFA node certificate no BAS98ATEX 7202. BASEEFA system certificate no. Ex98E2203.</p> <p>Note 6 These products are listed in the document 8000-1 'ATEX Documentation for ancillary components used with the 8000 Zone 2 System'.</p>								

For the latest certification information visit: www.gefanuc.com



GE Fanuc Intelligent Platforms

1 800 GEFANUC
1 800 322 3616
1 434 978 5100

Global Regional phone numbers
are available on our website
www.gefanuc.com

8000 2/x System specification

2/1 system approvals for mounting and field wiring

Standard	EUROPE				USA (FM)		CANADA (CSA)	
	prEN50021 & EN50021 ¹		EN50014:1997 & EN50020 ⁵ :1994		Class No. 3611	Class No. 3610	CAN/CSA E79-15-95	CAN/CSA E79-11-95
Approved for	Zone 2 installations ATEX Category II 3 G		IS field wiring ATEX Category II [1] G		Div 2 installation Non-incendive apparatus suitable for installation in Class 1, Div 2, Grps A-D	IS field wiring IS field terminals for Classes I,II,III Grps A-G	Div 2 installation non-sparking apparatus suitable for installation in Class 1, Zone 2/Div 2, Grp IIC	IS field wiring for Class I, Zones 0,1, Grp IIC
Part numbers & descriptions								
<i>Carriers</i>	Code	Certificate Nos.	Code	Certificate Nos.	Certificate Nos.		Certificate Nos.	
8727-CA-08 IS carrier, 8 module		See note 6	[EEx ia]	BAS98 ATEX 7210U	3001345		2000 152423-1000846X	
8720-CA-04 IS carrier, 4 module		See note 6	[EEx ia]	BAS98 ATEX 7210U	3001345		2000 152423-1000846X	
8723-CA-RB IS carrier, Railbus isolator		See note 6	[EEx ia]	BAS98 ATEX 7208U	3001345		2000 152423-1000846X	
8724-CA-PS IS carrier, IS module power supply		See note 6	[EEx ia]	BAS98 ATEX 7209U	3001345		2000 152423-1000846X	
8729-CA-08 IS carrier, 8 module 64-address system		See note 6	[EEx ia]	BAS98 ATEX 7210U	3001345			
<i>Carrier extenders</i>								
8030-CE-RH IS carrier extender, right-hand		See note 6	[EEx ia]	BAS98 ATEX 7210U	3001345		2000 152423-1000846X	
8031-CE-LH IS carrier extender, left-hand		See note 6	[EEx ia]	BAS98 ATEX 7210U	3001345		2000 152423-1000846X	
<i>Extender cables</i>								
8011-CC-35 IS carrier extension cable 0.35m		See note 6	[EEx ia]	BAS98 ATEX 7210U	3001345		2000 152423-1000846X	
8012-CC-85 IS carrier extension cable 0.85m		See note 6	[EEx ia]	BAS98 ATEX 7210U	3001345		2000 152423-1000846X	
8013-CC-12 IS carrier extension cable 1.2m		See note 6	[EEx ia]	BAS98 ATEX 7210U	3001345		2000 152423-1000846X	
8016-CC-35 IS power extension cable 0.35m		See note 6	[EEx ia]	BAS98 ATEX 7210U	3001345		2000 152423-1000846X	
8017-CC-85 IS power extension cable 0.85m		See note 6	[EEx ia]	BAS98 ATEX 7210U	3001345		2000 152423-1000846X	
8018-CC-12 IS power extension cable 1.2m		See note 6	[EEx ia]	BAS98 ATEX 7210U	3001345		2000 152423-1000846X	
8032-CC-35 IS carrier extension cable set 0.35m		See note 6	[EEx ia]	BAS98 ATEX 7210U	3001345		2000 152423-1000846X	
8033-CC-85 IS carrier extension cable set 0.85m		See note 6	[EEx ia]	BAS98 ATEX 7210U	3001345		2000 152423-1000846X	
8034-CC-12 IS carrier extension cable set 1.2m		See note 6	[EEx ia]	BAS98 ATEX 7210U	3001345		2000 152423-1000846X	
<p>Note 1 Applies to railbus interface</p> <p>Note 2 The railbus interface and I/O field wiring are covered by a single certificate. The railbus interface code is ExnA.</p> <p>Note 3 The railbus interface and I/O field wiring are covered by a single certificate and no distinction is made between non-incendive and non-arcing railbus interface connections.</p> <p>Note 4 EN50021 was available only in draft form when this apparatus was certified. When EN50021 was finally published, the designation EEx nV had been changed to EEx nA for non-arcing apparatus. EEx nV is equivalent to EEx nA.</p> <p>Note 5 BASEEFA node certificate no BAS98ATEX 7202. BASEEFA system certificate no. Ex98E2203.</p> <p>Note 6 These products are listed in the document MTL8000-1 'ATEX Documentation for ancillary components used with the MTL8000 Zone 2 System'.</p>								

For the latest certification information visit: www.gefanuc.com



GE Fanuc Intelligent Platforms

1 800 GEFANUC
1 800 322 3616
1 434 978 5100

Global Regional phone numbers
are available on our website
www.gefanuc.com