



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: issue No.: Certificate history:

Status:

Date of Issue: Page 1 of 3

Applicant: **GM International S.R.L.**
Via San Fiorano 70
20058 Villasanta (MI)
Italy

Electrical Apparatus: **DIN Rail Isolator type D5****, D5****-xxx**
Optional accessory:

Type of Protection: **Intrinsic safety "i"; Type of Protection "n"; Equipment with equipment protection level (EPL) Ga; Intrinsic safety "ID"**

Marking: **Ex nA [ia Ga] IIC T4 Gc, [Ex ia Da] IIIC, [Ex ia Ma] I
Ex nA nC [ia Ga] IIC T4 Gc, Ex nA nC IIC T4 Gc**

Approved for issue on behalf of the IECEx
Certification Body:

H.-Ch. Simanski

Position:

Head of Certification Body

Signature:
(for printed version)

Date:

20/10/2010

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

DEKRA EXAM GmbH
Dinnendahlstrasse 9
44809 Bochum
Germany

DEKRA
DEKRA EXAM GmbH



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Manufacturer: **GM International S.R.L.**
Via San Fiorano 70
20058 Villasanta (MI)
Italy

Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2007-10 Edition: 5	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-11 : 2006 Edition: 5	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-15 : 2005-03 Edition: 3	Electrical apparatus for explosive gas atmospheres Part 15: Construction, test and Marking of Type of Protection "n" electrical apparatus
IEC 60079-26 : 2006 Edition: 2	Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga
IEC 61241-11 : 2005 Edition: 1	Electrical apparatus for use in the presence of combustible dusts - Part 11: Protection by intrinsic safety 'iD'

This Certificate does not indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

DE/BVS/ExTR10.0103/00

Quality Assessment Report:

NO/DNV/QAR07.0005/03



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Description

See Annex

Type Code

See Annex

Ratings

See Annex

CONDITIONS OF CERTIFICATION: YES as shown below:

1. Group I application:

DIN Rail Isolators of type series D5****, D5****-xxx shall be installed outside the hazardous area or alternatively in an enclosure providing a suitable type of protection according to separate certification.

2. Group II application:

DIN Rail Isolators of type series D5****, D5****-xxx shall be installed:

- outside the hazardous area, or
- shall be mounted inside an enclosure, which is in accordance with IEC 60079-15 in case of alternative installation in areas requiring EPL Gc equipment.

3. Group III application:

DIN Rail Isolators of type series D5****, D5****-xxx shall be installed outside the hazardous area.

4. General

The installation of DIN Rail Isolators of type series D5****, D5****-xxx shall be carried out in such a way that the clearances of un-insulated conductors of intrinsically safe circuits to grounded metal parts of the enclosure are at least 3 mm, and un-insulated conductors of non-intrinsically safe circuits of other apparatus are situated at least 50 mm from terminals for external intrinsically safe circuits, or are separated from them by an insulating barrier according to clause 6.2.1 of IEC 60079-11:2006.



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Description:

Repeater Power Supply type D5011S, D5011S-xxx, D5011D, D5011D-xxx

Repeater Power Supply type D5011*, D5011*-xxx provides a fully floating single or dual channel intrinsically safe DC supply for energizing conventional 2 wires 4 - 20 mA transmitters located in a hazardous area, and repeats the current in floating circuit to drive a safe area load.

Repeater Power Supply type D5014S, D5014S-xxx, D5014D, D5014D-xxx

Repeater Power Supply type D5014*, D5014*-xxx provides a fully floating single or dual channel DC supply for energizing conventional 2/3 wires 0/4-20 mA, active or passive, transmitters located in a hazardous area, and repeats the current in floating circuit to drive a safe area load.

Available versions: single channel: type D5014S, D5014S-xxx; dual channel: type D5014D, D5014D-xxx.

Powered Isolating Driver type D5020S, D5020S-xxx, D5020D, D5020D-xxx

Isolating Driver Type D5020*, D5020*-xxx provides single or dual channel intrinsically safe power supply for valve positioners or I/P-converters and repeats a non intrinsically safe 4 - 20 mA analogue signal from a controller located in safe area to a load up to 700 Ω . Available versions: single channel: type D5020S, D5020S-xxx; dual channel: type D5020D, D5020D-xxx.

Switch/Proximity Detector Repeater type D5030S, D5030S-xxx, D5030D, D5030D-xxx

The single and dual channel Switch/Proximity Detector Repeater D5030*, D5030*-xxx is a device that can be configured for switch or proximity detector (EN60947-5-6, NAMUR), NO or NC and for NE or ND SPST (D5030D, D5030D-xxx) or SPDT (D5030S, D5030S-xxx) relay output contact.

Each channel enables a safe area load to be controlled by a switch, or a proximity detector, located in a hazardous area.

Available versions of the Switch/Proximity Detector Repeater: single channel: type D5030S, D5030S-xxx. dual channel: type D5030D, D5030D-xxx.

Switch/Proximity Detector Repeater type D5031S, D5031S-xxx, D5031D, D5031D-xxx

The single and dual channel Switch/Proximity Detector Repeater D5031*, D5031*-xxx is a device that can be configured for switch or proximity detector (EN60947-5-6, NAMUR), NO or NC and for NO or NC optocoupled open collector transistor output.

Each channel enables a safe area load to be controlled by a switch, or a proximity detector, located in a hazardous area.

Available versions of the Switch/Proximity Detector Repeater: single channel: type D5031S, D5031S-xxx. dual channel: type D5031D, D5031D-xxx.

Switch/Proximity Detector Repeater type D5032S, D5032S-xxx, D5032D, D5032D-xxx

The single and dual channel Switch/Proximity Detector Repeater D5032*, D5032*-xxx is a device that can be configured for switch or proximity detector (EN60947-5-6, NAMUR), NO or NC and for NE or ND SPST (D5032D, D5032D-xxx) or SPDT (D5032S, D5032S-xxx) relay output contact

Each channel enables a safe area load to be controlled by a switch, or a proximity detector, located in a hazardous area.

Available versions of the Switch/Proximity Detector Repeater: single channel: type D5032S, D5032S-xxx. dual channel: type D5032D, D5032D-xxx.

Switch/Proximity Interface type D5034S, D5034S-xxx, D5034D, D5034D-xxx

Switch/Proximity Interface types D5034*, D5034*-xxx provide single or dual channel intrinsically safe power supply for switch / proximity switch circuits and repeat the status of contacts or proximity switches in non intrinsically safe output circuits.

Available versions of the Switch/Proximity Interface: single channel: type D5034S, D5034S-xxx. dual channel: type D5034D, D5034D-xxx.



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Digital Output type D5048S, D5048S-xxx, type D5049S, D5049S-xxx,

Digital Output Type D504*S, D504*S-xxx provides single channel intrinsically safe remote outputs to operate solenoid valves, LEDs or audible alarms driven by non intrinsically safe digital remote signals. The versions type D5048S, D5048S-xxx, type D5049S, D5049S-xxx provide different electrical parameters.

Relay output type D5090S, D5090S-xxx, D5091S, D5091S-xxx

Relay output type D5290S, D5290S-xxx, D5291S, D5291S-xxx

Relay modules type D5*9*S, D5*9*S-xxx provides single channel isolation between input and output contacts in different configuration of the contacts with regard to switching of safety related circuits. The relay modules are designed as EPL Gc equipment, not providing any IS circuits.

Relay module type D5293S, D5293S-xxx, D5294S, D5294S-xxx

Relay module type D529*S, D529*S-xxx provides single channel isolation between input and output contacts.

D5293S, D5293S-xxx provide 1+1 SPST contact for normally energized load. Three voltage free relay contacts in series are inserted in an external 2-wire supply circuit.

D5294S, D5294S-xxx has 2+2 SPST relay contacts connected in series and then in parallel to avoid spurious trip and to increase availability.

The relay modules are designed as EPL Gc equipment, not providing any IS circuits.

Short cut explanation

NO = Normal Open
NC = Normal Closed
NE = Normal Energized

ND = Normal De-energized
SPST = Single-Pole Single-Throw
SPDT = Single-Pole Double-Throw

Type Code

Repeater Power Supply	type D5011*, D5011*-xxx
Repeater Power Supply	type D5014*, D5014*-xxx
Powered Isolating Driver	type D5020*, D5020*-xxx
Switch/Proximity Detector Repeater	type D5030*, D5030*-xxx
Switch/Proximity Detector Repeater	type D5031*, D5031*-xxx
Switch/Proximity Detector Repeater	type D5032*, D5032*-xxx
Switch/Proximity Interface	type D5034*, D5034*-xxx
Digital Output	type D5048S, D5048S-xxx, D5049S, D5049S-xxx
Relay Output Module	type D5090S, D5090S-xxx, D5091S, D5091S-xxx
Relay Output Module	type D5290S, D5290S-xxx, D5291S, D5291S-xxx
Relay Output Module	type D5293S, D5293S-xxx, D5294S, D5294S-xxx

In the full designation the "*" is replaced by letters marking details of construction as follows:

S	= single channel	S-xxx	= single channel
D	= dual channel	D-xxx	= dual channel

(Option 'xxx' = non Ex -relevant details of function)



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Ratings:

1 Non intrinsically safe circuits

1.1 Power supply

DIN Rail Isolator version	Voltage		Power
	U _n	U _m	P _n
	DC [V]	AC [V]	[W]
D5011S, D5011S-xxx	24	250	≤1.35
D5011D, D5011D-xxx	24	250	≤2.90
D5014S, D5014S-xxx,	24	250	≤1.35
D5014D, D5014D-xxx	24	250	≤2.70
D5020S, D5020S-xxx,	24	250	≤1.00
D5020D, D5020D-xxx	24	250	≤2.00
D5030S, D5030S-xxx	24	250	≤0.50
D5030D, D5030D-xxx	24	250	≤1.00
D5031S, D5031S-xxx	24	250	≤0.35
D5031D, D5031D-xxx	24	250	≤0.70
D5032S, D5032S-xxx	24	250	≤0.50
D5032D, D5032D-xxx	24	250	≤1.00
D5034S, D5034S-xxx,	24	250	≤0.40
D5034D, D5034D-xxx	24	250	≤0.80
D5048S, D5048S-xxx	24	250	≤1.80
D5049S, D5049S-xxx	24	250	≤1.80
D5090S, D5090S-xxx, D5091S, D5091S-xxx	24	N / A	≤1.20
D5290S, D5290S-xxx, D5291S, D5291S-xxx	24	N / A	≤2.00
D5293S, D5293S-xxx	24	N / A	≤2.00
D5294S, D5294S-xxx	24	N / A	≤2.70

Remark:
N / A = not applicable



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1.2 Input / output signal circuits (General, refers to devices providing IS circuits)

Voltage U_m = AC 250 V

1.3 Relay Output Module D5** / D5****-xxx**

1.3.1 Relay Output Module type D5090S, D5090S-xxx, D5091S, D5091S-xxx
 Device marking: Ex nA nC IIC T4 Gc

1.3.2 Relay Output Module type D5290S, D5290S-xxx, D5291S, D5291S-xxx
 Device marking: Ex nA nC IIC T4 Gc

Single channel; contact rating	Device	D5090*	D5091*	D5290*	D5291*
	Terminals				
contact status when the relay is energized	closed	7-8) ¹	7-8) ¹	13-14	13-14
	open	9-10) ¹	9-10) ¹	13-15	13-15
rated AC voltage	250 V		250 V		
rated AC current	4 A		10 A		
rated AC Power	1000 VA		2500 VA		
rated DC voltage	250 V		250 V		
rated DC Current	4 A) ²		10 A) ²		
rated DC Power	120 W		300 W		
Ambient temperature range	-40 °C ≤ T _a ≤ +70 °C				
Remark:) ¹ 7+9 common circuit) ² Derating curve for DC Voltage					

1.3.3 Relay Output Module type D5293S, D5293S-xxx, D5294S, D5294S-xxx
 Device marking: Ex nA nC IIC T4 Gc

Single channel; contact rating	Device	D5293*	D5294*
	Terminals		
2-wire load power connection	in	15 (+) -16 (-)) ¹	15 (+) -16 (-)) ¹
	out	13 (+) -14 (-)) ¹	13 (+) -14 (-)) ¹
rated AC voltage	250 V		250 V
rated AC current	10 A		10 A
rated AC Power	2500 VA		2500 VA
rated DC voltage	250 V		250 V
rated DC Current	10 A) ²		10 A) ²
rated DC Power	300 W		300 W
Ambient temperature range	-40 °C ≤ T _a ≤ +70 °C		
Remark:) ¹ DC as specified, or AC) ² Derating curve for DC Voltage			



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- 2 Intrinsically safe circuits level of protection Ex ia IIC / IIB / IIA / I
- 2.1 Repeater Power Supply D5**** / D5****-xxx
- 2.1.1 Repeater Power Supply type D5011*, D5011*-xxx
Device marking: Ex nA [ia Ga] IIC T4 Gc, [Ex ia Da] IIIC, [Ex ia Ma] I

Single channel parameters	Terminals		
Channel	1	7-8) ¹	
	2	9-10) ¹	
Voltage U _o	DC 25.9 V		
Current I _o	92 mA		
Power P _o	594 mW		
Voltage U _i	N / A		
Current I _i	N / A		
Power P _i	N / A		
Effective internal capacitance C _i	N / A		
Effective internal inductance L _i	N / A		
Max. external capacitance C _o	IIC	100 nF	
	IIB iaD	770 nF	
	IIA	2.63 μF	
	I	4.02 μF	
Max. external inductance L _o	IIC	4.2 mH	
	IIB iaD	16.8 mH	
	IIA	33.7 mH	
	I	55.2 mH	
Max. inductance / resistance ratio L _o /R _o	IIC	59.9 μH/Ω	
	IIB iaD	239.7 μH/Ω	
	IIA	479.4 μH/Ω	
	I	786.6 μH/Ω	
Characteristics	linear		
Ambient temperature range	-40 °C ≤ T _a ≤ +70 °C		
Remarks:			
) ¹ 2-wire circuit "T*+", "T*-" parameters of supply circuit			
N / A = not applicable			



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2.1.2 Repeater Power Supply type D5014*, D5014*-xxx
 Device marking: Ex nA [ia Ga] IIC T4 Gc, [Ex ia Da] IIIC, [Ex ia Ma] I

Single channel parameters	Terminals			
Channel	1	7-8) ¹	7-11) ³	8-11) ²
	2	9-10) ¹	9-12) ³	10-12) ²
Voltage U _o		DC 25.9 V		DC +/- 1.1 V
Current I _o		92 mA		56 mA
Power P _o		594 mW		16 mW
Voltage U _i		N / A		DC 30 V
Current I _i		N / A		128 mA
Power P _i		N / A		N / A
Effective internal capacitance C _i		N / A		0 nF
Effective internal inductance L _i		N / A		0 mH
Max. external capacitance C _o	IIC	100 nF		100 µF
	IIB iaD	770 nF		1000 µF
	IIA	2.63 µF		1000 µF
	I	4.02 µF		1000 µF
Max. external inductance L _o	IIC	4.2 mH		11.5 mH
	IIB iaD	16.8 mH		46.0 mH
	IIA	33.7 mH		92.1 mH
	I	55.2 mH		151.1 mH
Max. inductance / resistance ratio L _o /R _o	IIC	59.9 µH/Ω		2327.2 µH/Ω
	IIB iaD	239.7 µH/Ω		9309.0 µH/Ω
	IIA	479.4 µH/Ω		18618.1 µH/Ω
	I	786.6 µH/Ω		30545.4 µH/Ω
Characteristics		linear		linear
Ambient temperature range		-40 °C ≤ T _a ≤ +70 °C		
Remarks:) ¹ 2-wire circuit "T*+", "T*-" parameters of supply circuit) ² 2-wire circuit "-I*+", "I*-" parameters of input circuit) ³ 3-wire circuit "T*+" "I*+", "I*-" not used N / A = not applicable				



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2.2 Powered Isolating Driver D5**** / D5****-xxx

2.2.1 Powered Isolating Driver type D5020*, D5020*-xxx
Device marking: Ex nA [ja Ga] IIC T4 Gc, [Ex ia Da] IIIC, [Ex ia Ma] I

Single channel parameters	Terminals		
Channel	1	7-8) ¹	
	2	9-10) ¹	
Voltage U _o	DC 25.9 V		
Current I _o	93 mA		
Power P _o	595 mW		
Voltage U _i	N / A		
Current I _i	N / A		
Power P _i	N / A		
Effective internal capacitance C _i	N / A		
Effective internal inductance L _i	N / A		
Max. external capacitance C _o	IIC	100 nF	
	IIB iaD	770 nF	
	IIA	2.63 μF	
	I	4.02 μF	
Max. external inductance L _o	IIC	4.1 mH	
	IIB iaD	16.7 mH	
	IIA	33.5 mH	
	I	54.9 mH	
Max. inductance / resistance ratio L _o /R _o	IIC	59.7 μH/Ω	
	IIB iaD	239.0 μH/Ω	
	IIA	478.1 μH/Ω	
	I	784.5 μH/Ω	
Characteristics	linear		
Ambient temperature range	-40 °C ≤ T _a ≤ +70 °C		
Remarks:			
) ¹ 2-wire circuit "O*+", "O*-" parameters of supply circuit			
N / A = not applicable			



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2.3 Switch/Proximity Detector Repeater / Switch/Proximity Interface D5** / D5****-xxx**

2.3.1 Switch/Proximity Detector Repeater type D5030*, D5030*-xxx
Device marking: Ex nA nC [ia Ga] IIC T4 Gc, [Ex ia Da] IIIC, [Ex ia Ma] I

2.3.2 Switch/Proximity Detector Repeater type D5031*, D5031*-xxx
Device marking: Ex nA [ia Ga] IIC T4 Gc, [Ex ia Da] IIIC, [Ex ia Ma] I

2.3.3 Switch/Proximity Detector Repeater type D5032*, D5032*-xxx
Device marking: Ex nA nC [ia Ga] IIC T4 Gc, [Ex ia Da] IIIC, [Ex ia Ma] I

Single channel parameters	Device	D5030*	D5031*	D5032*
	Terminals			
Channel	1	7-8) ¹	7-8) ¹	7-8)1
	2	9-10) ¹	9-10) ¹	9-10)1
Voltage U _o		DC10.5 V	DC10.5 V	DC10.5 V
Current I _o		22 mA	22 mA	22 mA
Power P _o		56 mW	56 mW	56 mW
Voltage U _i		N / A	N / A	N / A
Current I _i		N / A	N / A	N / A
Power P _i		N / A	N / A	N / A
Effective internal capacitance C _i		1.1 nF	1.1 nF	1.1 nF
Effective internal inductance L _i		N / A	N / A	N / A
Max. external capacitance C _o	IIC	2.41 μF	2.41 μF	2.41 μF
	IIB iaD	16.8 nF	16.8 nF	16.8 nF
	IIA	75 μF	75 μF	75 μF
	I	66 μF	66 μF	66 μF
Max. external inductance L _o	IIC	78.3 mH	78.3 mH	78.3 mH
	IIB iaD	313.4 mH	313.4 mH	313.4 mH
	IIA	626.9 mH	626.9 mH	626.9 mH
	I	1028.6 mH	1028.6 mH	1028.6 mH
Max. inductance / resistance ratio L _o /R _o	IIC	635.9 μH/Ω	635.9 μH/Ω	635.9 μH/Ω
	IIB iaD	2543.9 μH/Ω	2543.9 μH/Ω	2543.9 μH/Ω
	IIA	5087.9 μH/Ω	5087.9 μH/Ω	5087.9 μH/Ω
	I	8347.4 μH/Ω	8347.4 μH/Ω	8347.4 μH/Ω
Characteristics		linear	linear	linear
Ambient temperature range		-40 °C ≤ T _a ≤ +70 °C		
Remarks:				
) ¹ 2-wire circuit "I*+", "I*-" parameters of supply circuit				
N / A = not applicable				



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2.3.4 Switch/Proximity Interface type D5034*, D5034*-xxx
Device marking: Ex nA [ia Ga] IIC T4 Gc, [Ex ia Da] IIIC, [Ex ia Ma] I

Single channel parameters	Terminals		
Channel	1	7-8) ¹	
	2	9-10) ¹	
Voltage U_o	DC10.5 V		
Current I_o	15 mA		
Power P_o	39 mW		
Voltage U_i	N / A		
Current I_i	N / A		
Power P_i	N / A		
Effective internal capacitance C_i	N / A		
Effective internal inductance L_i	N / A		
Max. external capacitance C_o	IIC	2.41 μ F	
	IIB iaD	16.8 nF	
	IIA	75 μ F	
	I	66 μ F	
Max. external inductance L_o	IIC	163.2 mH	
	IIB iaD	652.8 mH	
	IIA	1305.6 mH	
	I	2142.0 mH	
Max. inductance / resistance ratio L_o/R_o	IIC	918.2 μ H/ Ω	
	IIB iaD	3672.9 μ H/ Ω	
	IIA	7345.8 μ H/ Ω	
	I	12051.8 μ H/ Ω	
Characteristics	linear		
Ambient temperature range	$-40\text{ }^\circ\text{C} \leq T_a \leq +70\text{ }^\circ\text{C}$		
Remarks:			
) ¹ 2-wire circuit "T*+", "T*-" parameters of supply circuit			
N / A = not applicable			



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2.4 Digital Output Driver D5**** / D5****-xxx

2.4.1 Digital Output Driver type D5048S, D5048S-xxx

Device marking: Ex nA [ia Ga] IIC T4 Gc, [Ex ia Da] IIIC, [Ex ia Ma] I

2.4.2 Digital Output Driver type D5049S, D5049S-xxx

Device marking: Ex nA [ia Ga] IIC T4 Gc, [Ex ia Da] IIIC, [Ex ia Ma] I

Single channel parameters	Terminals			
	1	7-10) ¹	8-10) ²	9-10) ³
Channel	2	N / A	N / A	N / A
Voltage U _o		DC 24.8 V	DC 24.8 V	DC 24.8 V
Current I _o		147 mA	108 mA	93 mA
Power P _o		907 mW	667 mW	571 mW
Voltage U _i		N / A	N / A	N / A
Current I _i		N / A	N / A	N / A
Power P _i		N / A	N / A	N / A
Effective internal capacitance C _i		N / A	N / A	N / A
Effective internal inductance L _i		N / A	N / A	N / A
Max. external capacitance C _o	IIC	113 nF	113 nF	113 nF
	IIB iaD	860 nF	860 nF	860 nF
	IIA	3.05 µF	3.05 µF	3.05 µF
	I	4.35 µF	4.35 µF	4.35 µF
Max. external inductance L _o	IIC	1.65 mH	3.07 mH	4.19 mH
	IIB iaD	6.63 mH	12.30 mH	16.79 mH
	IIA	13.27 mH	24.60 mH	33.58 mH
	I	21.78 mH	40.36 mH	55.09 mH
Max. inductance / resistance ratio L _o /R _o	IIC	39.2 µH/Ω	53.3 µH/Ω	62.3 µH/Ω
	IIB iaD	156.8 µH/Ω	213.5 µH/Ω	249.4 µH/Ω
	IIA	313.6 µH/Ω	427.0 µH/Ω	498.9 µH/Ω
	I	514.6 µH/Ω	700.6 µH/Ω	818.5 µH/Ω
Characteristics		linear	linear	linear
Ambient temperature range		-40 °C ≤ T _a ≤ +70 °C		
Remarks:				
<p>)¹ 2-wire circuit 'Out A' "O1+", "O-" parameters of supply circuit)² 2-wire circuit 'Out B' "O2+", "O-" parameters of supply circuit)³ 2-wire circuit 'Out C' "O3+", "O-" parameters of supply circuit "O-" = common ground for "O*+" 'Out A / B / C' are used exclusive or only</p>				
N / A = not applicable				