



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

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

Certificate No.:	IECEX BVS 10.0072X	Page 1 of 4	<u>Certificate history:</u>
Status:	Current	Issue No: 8	Issue 7 (2017-06-06)
Date of Issue:	2022-04-14		Issue 6 (2016-09-22)
Applicant:	G.M. International S.R.L. Via G. Mameli 53/55 20852 Villasanta (MB) Italy		Issue 5 (2015-12-14)
Equipment:	DIN Rail Isolator Relay Output Switch/Proximity Detector repeater type D5****, D5****-xxx		Issue 4 (2015-07-16)
Optional accessory:			Issue 3 (2015-02-04)
Type of Protection:	Intrinsic safety "i"; Increased safety "e"; Equipment protection "n"		Issue 2 (2014-04-11)
Marking:	Ex ec nC [ia Ga] IIC T4 Gc		Issue 1 (2013-10-28)
	[Ex ia Da] IIIC		Issue 0 (2010-10-20)
	[Ex ia Ma] I		
	Ex ec [ia Ga] IIC T4 Gc		
	Ex ec nC IIC T4 Gc		
	Ex ec IIC T4 Gc		

Approved for issue on behalf of the IECEx
Certification Body:

Dr Michael Wittler

Position:

Deputy Head of Certification Body

Signature:
(for printed version)

Date:
(for printed version)

14.04.2022

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Certificate issued by:

DEKRA Testing and Certification GmbH
Certification Body
Dinnendahlstrasse 9
44809 Bochum
Germany

 **DEKRA**
On the safe side.



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Manufacturer: **G.M. International S.R.L.**
Via G. Mameli 53/55
20852 Villasanta (MB)
Italy

Manufacturing locations: **G.M. International S.R.L.**
Via G. Mameli 53/55
20852 Villasanta (MB)
Italy

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 equipment 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 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

[IEC 60079-15:2017](#) Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:5.0

[IEC 60079-7:2017](#) Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

This Certificate **does not** indicate compliance with 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/ExTR10.0103/08](#)

Quality Assessment Report:

[NO/DNV/QAR07.0005/10](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

General product information:

See Annex

Rating

See Annex

SPECIFIC CONDITIONS OF USE: 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
- in case of alternative installation in areas requiring EPL Gc equipment:
 - The equipment shall only be used in an area of at least pollution degree 2, as defined in IEC 60664-1.

and

- The equipment shall be installed in an enclosure that provides a minimum ingress protection of IP 54 in accordance with IEC 60079-0.

3. Group III 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.

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 60079-11:2011.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

- Updating of the standards
 - IEC 60079-0:2011 to IEC 60079-0:2017
 - IEC 60079-15:2010 to IEC 60079-15:2017
- Converting type of Protection "nA" to "ec" by introducing standard IEC 60079-7:2017

Annex:

[BVS_10_0072X_GM_Annex8_1.pdf](#)



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General product information:

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.

Available versions: single channel: type D5011S, D5011S-xxx; dual channel: type D5011D, D5011D-xxx.

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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Switch/Proximity Detector Repeater type D5036S, D5036S-xxx, D5036D, D5036D-xxx

The single and dual channel Switch/Proximity Detector Repeater D5036*, D5036*-xxx generates fully floating intrinsically safe power supply for proximity sensor field devices or for voltage free contacts of field devices and repeats the operation status of the proximity sensors / voltage free contacts on the non-intrinsically safe side by means of voltage free relay contacts.

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 D5036S, D5036S-xxx; dual channel: type D5036D, D5036D-xxx.

Switch/Proximity Detector Repeater type D5037S, D5037S-xxx, D5037D, D5037D-xxx

The single and dual channel Switch/Proximity Detector Repeater D5037*, D5037*-xxx generates fully floating intrinsically safe power supply for proximity sensor field devices or for voltage free contacts of field devices and repeats the operation status of the proximity sensors / voltage free contacts on the non-intrinsically safe side by means of voltage free opto-isolator outputs.

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 D5037S, D5037S-xxx; dual channel: type D5037D, D5037D-xxx.

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.

Available versions of the Digital Output: single channel: type D5048S, D5048S-xxx; single channel: type D5049S, D5049S-xxx.

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 Output type D5090S-086

The Relay Output type D5090S-086 provides single channel isolation between remote input and output contact; configuration three contacts in series.

The relay output is designed as EPL Gc equipment, not providing any IS circuits.

Relay Outputs type D5293S, D5293S-xxx, D5294S, D5294S-xxx, D5295S, D5295S-xxx

The Relay Outputs with diagnostic type D5293S, D5293S-xxx, D5294S, D5294S-xxx, D5295S, D5295S-xxx, are designed as EPL Gc equipment, which does not provide any intrinsically safe circuits and are intended for installation inside enclosures, complying with IEC 60079-7.

Relay module type D5290S-078

The Relay Modules type series D5*9*S, D5*9*S-xxx, providing single channel isolation between supply-input and output contacts have been extended with new model D5290S-078.

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

Switch Repeater type D5093S, D5093S-xxx, D5093D or D5093D-xxx

The Switch Repeater type: D5093S, D5093S-xxx, D5093D or D5093D-xxx is designed as EPL Gc equipment, not providing any IS circuits and intended for installation inside enclosures, complying with IEC 60079-7.

Relay Outputs type D5094S, D5094S-xxx, D5095S, D5095S-xxx, D5096S, D5096S-100, D5096S-xxx, D5097S, D5097S-xxx



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The Relay Outputs (without / with diagnostic) type D5094S, D5094S-xxx, D5095S, D5095S-xxx, D5096S, D5096S-100, D5096S-xxx, D5097S, D5097S-xxx are designed as EPL Gc equipment, which does not provide any intrinsically safe circuits and are intended for installation inside enclosures, complying with IEC 60079-7.

Rating

1 Non intrinsically safe circuits

1.1 Power supply

DIN Rail Isolator version	Voltage		Power
	U _n	U _m	P _n
	[V]	AC [V]	[W]
D5011S, D5011S-xxx	DC 24	250	≤ 1.35
D5011D, D5011D-xxx			≤ 2.90
D5014S, D5014S-xxx			≤ 1.35
D5014D, D5014D-xxx			≤ 2.70
D5020S, D5020S-xxx			≤ 1.00
D5020D, D5020D-xxx			≤ 2.00
D5030S, D5030S-xxx			≤ 0.50
D5030D, D5030D-xxx			≤ 1.00
D5031S, D5031S-xxx			≤ 0.35
D5031D, D5031D-xxx			≤ 0.70
D5032S, D5032S-xxx			≤ 0.50
D5032D, D5032D-xxx			≤ 1.00
D5034S, D5034S-xxx			≤ 0.40
D5034D, D5034D-xxx			≤ 0.80
D5036S, D5036S-xxx			≤ 0.5
D5036D, D5036D-xxx			≤ 1
D5037S, D5037S-xxx			≤ 0.35
D5037D, D5037D-xxx			≤ 0.7
D5048S, D5048S-xxx			≤ 1.80
D5049S, D5049S-xxx			≤ 1.80
D5090S, D5090S-xxx		N/A	≤ 1.20
D5091S, D5091S-xxx			≤ 1.2
D5090S-086			≤ 2.00
D5290S, D5290S-xxx, D5291S, D5291S-xxx			≤ 1.5
D5290S-078			≤ 1.1
D5293S, D5293S-xxx			≤ 1.2
D5294S, D5294S-xxx			≤ 1.2
D5295S, D5295S-xxx			≤ 1.125
D5093S, D5093S-xxx			≤ 2.25
D5093D, D5093D-xxx			1.4
D5094S, D5094S-xxx			1.4
D5095S, D5095S-xxx			≤ 1.4 + 0.37
D5096S, D5096S-100, D5096S-xxx	≤ 1.4 + 0.37		
D5097S, D5097S-xxx	≤ 1.4 + 0.37		



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1.2 Relay contacts

1.2.1 Relay Output Module type D5090S, D5090S-xxx, D5090S-086, D5091S, D5091S-xxx
Device marking: Ex ec nC IIC T4 Gc

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

Single channel; contact rating	Device	D5090S D5090S-086 D5091S	D5290S D5291S
		Terminals	
contact status when the relay is energized	closed	7-8 ¹⁾	13-14
	open	9-10 ¹⁾	13-15
rated AC voltage		250 V	250 V
rated AC current		5 A	10 A
rated AC Power		1250 VA	2500 VA
rated DC voltage		250 V	250 V
rated DC Current		5 A ²⁾	10 A ²⁾
rated DC Power		140 W	300 W
Remark: ¹⁾ 7+9 common circuit ²⁾ Derating curve for DC Voltage			

1.2.3 Relay Output Module type D5094S, D5094S-xxx, D5095S, D5095S-xxx, D5096S, D5096S-100, D5096S-xxx, D5097S, D5097S-xxx
Device marking: Ex ec nC IIC T4 Gc

Relay contact circuit U_n AC 250 V; I_n 5 A, P_n 1250 VA
 U_n DC 250 V; I_n 5 A, P_n 140 W

1.2.4 Relay Output Module type D5293S, D5293S-xxx, D5294S, D5294S-xxx, D5295S, D5295S-xxx
Device marking: Ex ec nC IIC T4 Gc

Single channel; contact rating	Device	D5293*	D5294*, D5295*
		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		5 A	5 A
rated AC Power		1250 VA	1250 VA
rated DC voltage		250 V	250 V
rated DC Current		5 A ²⁾	5 A ²⁾
rated DC Power		140 W	140 W
Remark: ¹⁾ DC as specified, or AC ²⁾ Derating curve for DC Voltage			



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1.2.5 Relay Output Module type D5290S-078
Device marking: Ex ec nC IIC T4 Gc

Contact rating D5290S-078			
Voltage U_n	AC 250 V	DC 250 V	DC 30 V
Current I_{load}) ¹	≤ 5 A	≤ 0,2 A) ²	≤ 5 A
Power) ¹	≤ 1250 VA) ²	≤ 175 W
) ¹ resistive load) ² see detailed data sheet		

1.2.6 Switch Repeater Module type D5093S, D5093S-xxx, D5093D, D5093D-xxx
Device marking: Ex ec IIC T4 Gc

Switch output U_n DC 35 V; I_n 50 mA

1.3 Fault signal output

1.3.1 Relay Output Module type D5094S, D5094S-xxx, D5095S, D5095S-xxx, D5096S, D5096S-100, D5096S-xxx, D5097S, D5097S-xxx

Device marking: Ex ec nC IIC T4 Gc

Fault signal output U_n DC 35 V; I_n 100 mA (D5096S, D5096S-100, D5096S-xxx, D5097S, D5097S-xxx only)

1.3.2 Relay Output Module type D5293S, D5293S-xxx, D5294S, D5294S-xxx, D5295S, D5295S-xxx
Device marking: Ex ec nC IIC T4 Gc

Single channel contact rating	D5293S, D5294S, D5295S) ¹	
	Output 1	Output 2
rated AC voltage	30 V	250 V
rated AC current	500 mA	3 A
rated AC Power	15 VA	750 VA
rated DC voltage	50 V	125 V
rated DC Current	500 mA	3 A
rated DC Power	25 W) ²	120 W) ²
Remarks:) ¹ D529*S parameters refer also to D529*S-xxx models) ² resistive load		

2 Intrinsically safe circuits level of protection Ex ia IIIC / IIC / IIB / IIA / I

2.1 Repeater Power Supply type D501, D501**-xxx**

2.1.1 Repeater Power Supply type D5011*, D5011*-xxx

Device marking: Ex ec [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	



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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 / IIIC	770 nF
	IIA	2.63 μ F
	I	4.02 μ F
Max. external inductance L_o	IIC	4.2 mH
	IIB / IIIC	16.8 mH
	IIA	33.7 mH
	I	55.2 mH
Max. inductance / resistance ratio L_o/R_o	IIC	59.9 μ H/ Ω
	IIB / IIIC	239.7 μ H/ Ω
	IIA	479.4 μ H/ Ω
	I	786.6 μ H/ Ω
Characteristics		linear
Remarks:)1 2-wire circuit "T*+", "T*-" parameters of supply circuit	

2.1.2 Repeater Power Supply type D5014*, D5014*-xxx
Device marking: Ex ec [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 μ F
	IIB / IIIC	770 nF	-	1000 μ F
	IIA	2.63 μ F	-	1000 μ F
	I	4.02 μ F	-	1000 μ F
Max. external inductance L_o	IIC	4.2 mH	-	11.5 mH
	IIB / IIIC	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 μ H/ Ω	-	2327.2 μ H/ Ω
	IIB / IIIC	239.7 μ H/ Ω	-	9309.0 μ H/ Ω
	IIA	479.4 μ H/ Ω	-	18618.1 μ H/ Ω
	I	786.6 μ H/ Ω	-	30545.4 μ H/ Ω
Characteristics		linear	-	linear
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			



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2.2 Powered Isolating Driver type D5020*, D5020*-xxx
Device marking: Ex ec [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	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 / IIIC	770 nF
	IIA	2.63 μF
	I	4.02 μF
Max. external inductance L _o	IIC	4.1 mH
	IIB / IIIC	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 / IIIC	239.0 μH/Ω
	IIA	478.1 μH/Ω
	I	784.5 μH/Ω
Characteristics	linear	
Remarks:) ¹ 2-wire circuit "O*+", "O*-" parameters of supply circuit	

2.3 Switch/Proximity Detector Repeater type D503, D503**-xxx**

2.3.1 Switch/Proximity Detector Repeater type D5030*, D5030*-xxx
Device marking: Ex ec 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 ec [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 ec 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 / IIIC	16.8 μF	16.8 μF	16.8 μF



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	IIA	75 μ F	75 μ F	75 μ F
	I	66 μ F	66 μ F	66 μ F
Max. external inductance L_o	IIC	78.3 mH	78.3 mH	78.3 mH
	IIB / IIIC	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 μ H/ Ω	635.9 μ H/ Ω	635.9 μ H/ Ω
	IIB / IIIC	2543.9 μ H/ Ω	2543.9 μ H/ Ω	2543.9 μ H/ Ω
	IIA	5087.9 μ H/ Ω	5087.9 μ H/ Ω	5087.9 μ H/ Ω
	I	8347.4 μ H/ Ω	8347.4 μ H/ Ω	8347.4 μ H/ Ω
Characteristics		linear	linear	linear
Remarks:) ¹ 2-wire circuit "I*+", "I*-" parameters of supply circuit				

2.3.4 Switch/Proximity Interface type D5034*, D5034*-xxx
Device marking: Ex ec [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 / IIIC	16.8 μ F
	IIA	75 μ F
	I	66 μ F
Max. external inductance L_o	IIC	163.2 mH
	IIB / IIIC	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 / IIIC	3672.9 μ H/ Ω
	IIA	7345.8 μ H/ Ω
	I	12051.8 μ H/ Ω
Characteristics	linear	
Remarks:) ¹ 2-wire circuit "T*+", "T*-" parameters of supply circuit		



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2.3.5 Switch/Proximity Detector Repeater type D5036*, D5036*-xxx
Device marking: Ex ec nC [ia Ga] IIC T4 Gc, [Ex ia Da] IIIC, [Ex ia Ma] I

2.3.6 Switch/Proximity Detector Repeater type D5037*, D5037*-xxx
Device marking: Ex ec [ia Ga] IIC T4 Gc, [Ex ia Da] IIIC, [Ex ia Ma] I

Single channel parameters	Device	D5036*	D5037*
	Terminals		
Channel	1	7-8) ¹	7-8) ¹
	2	9-10) ¹	9-10) ¹
Voltage U _o		DC10.5 V	DC10.5 V
Current I _o		22 mA	22 mA
Power P _o		56 mW	56 mW
Voltage U _i		N/A	N/A
Current I _i		N/A	N/A
Power P _i		N/A	N/A
Effective internal capacitance C _i		1.1 nF	1.1 nF
Effective internal inductance L _i		N/A	N/A
Max. external capacitance C _o	IIC	2.41 μF	2.41 μF
	IIB / IIIC	16.8 μF	16.8 μF
	IIA	75 μF	75 μF
	I	66 μF	66 μF
Max. external inductance L _o	IIC	78.3 mH	78.3 mH
	IIB / IIIC	313.4 mH	313.4 mH
	IIA	626.9 mH	626.9 mH
	I	1028.6 mH	1028.6 mH
Max. inductance / resistance ratio L _o /R _o	IIC	635.9 μH/Ω	635.9 μH/Ω
	IIB / IIIC	2543.9 μH/Ω	2543.9 μH/Ω
	IIA	5087.9 μH/Ω	5087.9 μH/Ω
	I	8347.4 μH/Ω	8347.4 μH/Ω
Characteristics		linear	linear
Remarks:) ¹ 2-wire circuit "I*+", "I*-" parameters of supply circuit		

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

2.4.1 Digital Output Driver type D5048S, D5048S-xxx
Device marking: Ex ec [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 ec [ia Ga] IIC T4 Gc, [Ex ia Da] IIIC, [Ex ia Ma] I

Single channel parameters	Terminals			
	Channel	1	7-10) ¹	8-10) ²
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



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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 / IIIC	860 nF	860 nF	860 nF
	IIA	3.05 μ F	3.05 μ F	3.05 μ F
	I	4.35 μ F	4.35 μ F	4.35 μ F
Max. external inductance L_o	IIC	1.65 mH	3.07 mH	4.19 mH
	IIB / IIIC	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 μ H/ Ω	53.3 μ H/ Ω	62.3 μ H/ Ω
	IIB / IIIC	156.8 μ H/ Ω	213.5 μ H/ Ω	249.4 μ H/ Ω
	IIA	313.6 μ H/ Ω	427.0 μ H/ Ω	498.9 μ H/ Ω
	I	514.6 μ H/ Ω	700.6 μ H/ Ω	818.5 μ H/ Ω
Characteristics		linear	linear	linear
Remarks: 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				