



ATEX Safety Instruction Manual

D1000 series



Note: This manual contains only safety instructions.

For the complete installation and user manuals, data sheets and certificates, supplier code of conduct, code of ethics, terms and conditions of sale and warranty please refer to www.gminternational.com.

1	Installation information	3
1.1	General	3
1.2	Installation for intrinsically safe associated apparatus application	3
1.3	Installation for zone 2 application	4
1.3.1	Special conditions for safe use	4
1.4	Inspection, maintenance and repair	4
2	Certification data	4
2.1	Table 1: Certificates and operating temperature	4
2.2	Table 2: Contacts ratings	8
3	Intrinsically safe parameters	8

1 Installation information

1.1 General

D1000 series are apparatus installed into standard EN/IEC60715 TH 35 DIN-Rail located in Safe Area or Zone 2 within the specified operating temperature limits (for complete details please refer to table 1). They can be mounted with any orientation over the entire ambient temperature range.

The end user is responsible to ensure that the operating temperature of the module is not exceeded in the end use application.

Units must be protected against dirt, dust, extreme mechanical (e.g. vibration, impact and shock) and thermal stress, and casual contacts.

Electrical connections are accommodated by polarized removable screw terminal blocks which can be plugged in/out into a powered unit without suffering or causing any damage. Connect only one individual conductor per each clamping point, use conductors up to 2.5 mm² and a torque value of 0.5-0.6 Nm. The wiring cables have to be proportionate in base to the current and the length of the cable.

D1000 series must be installed, operated and maintained only by qualified personnel, in accordance to the relevant national/international installation standards (e.g. EN/IEC 60079-14 Explosive atmospheres - Part 14: Electrical installations design, selection and erection), following the established installation rules.

According to EN/IEC61010, D1000 power supplies must be connected to SELV or SELV-E supplies. All circuits connected to D1000 must comply with the overvoltage category II (or better) according to EN/IEC 60664-1.

Failure to properly installation or use of the equipment may risk to damage the unit or severe personal injury.

For those models having a relay output: connect relay contacts checking the load rating to be within the contact maximum rating. To prevent relay contacts from damaging, connect an external protection (fuse or similar), chosen according to the relay breaking capacity diagram from installation instructions (for complete details please refer to table 2, if present).

For those models having a transistor output: connect transistor contacts checking the load rating to be within the contact maximum rating (for complete details please refer to table 2, if present).

For those models having contacts rated more than 50 Vac or 75 Vdc: de-energize main power source (turn off power supply voltage) and disconnect plug-in terminal blocks before opening the enclosure to avoid electrical shock when connected to live hazardous potential.

Storage: if the unit is not installed directly on a system (parts for spare or expansion with long storage periods), it must be conveniently stocked. Stocking area characteristics must comply with the following parameters: temperature -45 to +80°C; humidity 0 to 95%.

Vibration: no prolonged vibration should be perceivable in the stocking area to avoid loosening of parts or fatigue ruptures of components terminals.

Pollution: presence of pollutant or corrosive gases or vapours must be avoided to prevent corrosion of conductors and degradation of insulating surfaces.

For complete instruction manual, datasheet and certifications please refer to our website

www.qminternational.com.

1.2 Installation for intrinsically safe associated apparatus application

D1000 series must be connected to equipment with a maximum limit for power supply U_m of 250 Vrms or Vdc. Not to be connected to control equipment that uses or generates more than 250 Vrms or Vdc with respect to earth ground.

Intrinsically safe conductors must be identified and segregated from non I.S. and wired in accordance to the relevant national/international installation standards (e.g. EN/IEC 60079-14 Explosive atmospheres - Part 14: Electrical installations design, selection and erection), make sure that conductors are well isolated from each other and do not produce any unintentional connection.

Warning: substitution of components may impair intrinsic safety.

In the system safety analysis, always check that field device maximum allowable voltage, current and power are not exceeded by the safety parameters of the D1000 series associated apparatus connected to it. Check also that added connecting cable and field device capacitance and inductance do not exceed the limits given in the associated apparatus parameters for the effective gas group (Co, Lo, Lo/Ro).

Associated apparatus		Field device
Uo	≤	Ui
Io	≤	Ii
Po	≤	Pi
Co	≥	Ci + Ccable
Lo	≥	Li + Lcable
Lo/Ro	≥	Li/Ri and Lcable/Rcable

When used with separate powered intrinsically safe devices, check also that maximum allowable voltage, current and power of the D1000 series associated apparatus are not exceeded by the safety parameters of the field device.

Associated apparatus		Field device
Ui	≥	Uo
Ii	≥	Io
Pi	≥	Po
Ci + Ccable	≤	Co
Li + Lcable	≤	Lo

See parameters indicated in “Intrinsically safe parameters” section.

For installations in which both the Ci and Li of the field device exceed 1% of the Co and Lo parameters of the associated apparatus (excluding the cable), then 50% of Co and Lo parameters are applicable and shall not be exceeded (50% of the Co and Lo become the limits which must include the cable such that Ci device + C cable ≤ 50% of Co and Li device + L cable ≤ 50% of Lo). The reduced capacitance of the external circuit (including cable) shall not be greater than 1 µF for Groups I, IIA, IIB, IIIC and 600 nF for Group IIC. If the cable parameters are unknown, the following value may be used: Capacitance 200 pF per meter (60 pF per foot), inductance 1 µH per meter (0.20 µH per foot).

1.3 Installation for zone 2 application

De-energize power source (turn off power supply voltage) before plug or unplug the terminal blocks or before servicing, unless area is known to be nonhazardous.

Warning: substitution of components may impair suitability for zone 2.

Electrostatic Hazard: to avoid electrostatic hazard, the enclosure of D1000 series must be cleaned only with a damp or antistatic cloth.

1.3.1 Special conditions for safe use

The equipment shall only be used in an area of at least pollution degree 2, as defined in EN/IEC 60664-1. When installed in zone 2, the unit shall be installed in an enclosure that provides a minimum ingress protection of IP54 in accordance with EN/IEC 60079-0. The enclosure must have a door or cover accessible only by the use of a tool.

1.4 Inspection, maintenance and repair

The unit cannot be repaired by the end user and must be returned to the manufacturer or his authorized representative.

If enclosure needs to be cleaned use only a cloth lightly moistened by a mixture of detergent in water.

2 Certification data

2.1 Table 1: Certificates and operating temperature

Model family	Certificate n.	Standards	Markings	Operating temperature
D1010	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-7	II 3G Ex ec IIC T4 Gc	
D1010-046	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-7	II 3G Ex ec IIC T4 Gc	

Model family	Certificate n.	Standards	Markings	Operating temperature
D1012	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-7	II 3G Ex ec IIC T4 Gc	
D1014	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-7	II 3G Ex ec IIC T4 Gc	
D1020	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-7	II 3G Ex ec IIC T4 Gc	
D1022	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-7	II 3G Ex ec IIC T4 Gc	
D1030	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-15 EN 60079-7	II 3G Ex ec nC IIC T4 Gc	
D1031	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-7	II 3G Ex ec IIC T4 Gc	
D1032	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-15 EN 60079-7	II 3G Ex ec nC IIC T4 Gc	
D1033	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-7	II 3G Ex ec IIC T4 Gc	
D1034	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-7	II 3G Ex ec IIC T4 Gc	
D1035	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-7	II 3G Ex ec IIC T4 Gc	
D1040	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-7	II 3G Ex ec IIC T4 Gc	
D1041	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-7	II 3G Ex ec IIC T4 Gc	

Model family	Certificate n.	Standards	Markings	Operating temperature
D1042	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-7	II 3G Ex ec IIC T4 Gc	
D1043	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-7	II 3G Ex ec IIC T4 Gc	
D1044	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-15 EN 60079-7	II 3G Ex ec nC IIC T4 Gc	
D1045	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-7	II 3G Ex ec IIC T4 Gc	
D1046	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11	II (1)G [Ex ia Ga] IIB II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-7	II 3G Ex ec IIC T4 Gc	
D1048	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11 EN 60079-7	II 3(1)G Ex ec [ia Ga] IIC T4 Gc II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
D1049	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11 EN 60079-7	II 3(1)G Ex ec [ia Ga] IIC T4 Gc II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
D1052	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-7	II 3G Ex ec IIC T4 Gc	
D1053	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-7	II 3G Ex ec IIC T4 Gc	
D1054	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-15 EN 60079-7	II 3G Ex ec nC IIC T4 Gc	-20 ÷ 60 °C
	Presafe 16ATEX8917	EN 60079-0 EN 60079-11 EN 50303	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	
D1060	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-7	II 3G Ex ec IIC T4 Gc	
D1061	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-7	II 3G Ex ec IIC T4 Gc	-20 ÷ 60 °C
	Presafe 16ATEX8917	EN 60079-0 EN 60079-11 EN 50303	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	
D1061-077	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11 EN 60079-7	II 3(1)G Ex ec [ia Ga] IIC T4 Gc II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C

Model family	Certificate n.	Standards	Markings	Operating temperature
D1062	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-7	II 3G Ex ec IIC T4 Gc	
D1063	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-7	II 3G Ex ec IIC T4 Gc	-20 ÷ 60 °C
	Presafe 16ATEX8917	EN 60079-0 EN 60079-11 EN 50303	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	
D1064	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-7	II 3G Ex ec IIC T4 Gc	
D1072	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-7	II 3G Ex ec IIC T4 Gc	
D1073	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-15 EN 60079-7	II 3G Ex ec nC IIC T4 Gc	
D1080	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-15 EN 60079-7	II 3G Ex ec nC IIC T4 Gc	
D1081	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-7	II 3G Ex ec IIC T4 Gc	
D1092	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-15 EN 60079-7	II 3G Ex ec nC IIC T4 Gc	-20 ÷ 60 °C
D1092-069	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-15 EN 60079-7	II 3G Ex ec nC IIC T4 Gc	-20 ÷ 60 °C
D1093	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-15 EN 60079-7	II 3G Ex ec nC IIC T4 Gc	-20 ÷ 60 °C
D1130	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-15 EN 60079-7	II 3G Ex ec nC IIC T4 Gc	
D1180	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-15 EN 60079-7	II 3G Ex ec nC IIC T4 Gc	
PSD1000	-	EN 60079-0 EN 60079-15	II 3G Ex nA IIC T4 Gc	-20 ÷ 60 °C
PSD1001	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11	II (1)G [Ex ia Ga] IIC II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-7	II 3G Ex ec IIC T4 Gc	

Model family	Certificate n.	Standards	Markings	Operating temperature
PSD1001C	DMT 01 ATEX E 042 X	EN 60079-0 EN 60079-11	II (1)G [Ex ia Ga] IIB II (1)D [Ex ia Da] IIIC I (M1) [Ex ia Ma] I	-20 ÷ 60 °C
	IMQ 09 ATEX 013 X	EN 60079-0 EN 60079-7	II 3G Ex ec IIC T4 Gc	

2.2 Table 2: Contacts ratings

Model family	Contacts type	Contacts function	Contacts ratings
D1030	Relay	Out	2 A 250 Vac 500 VA, 2 A 250 Vdc 80 W resistive load
D1031	Transistor	Out	100 mA at 35 V (≤ 2.0 V voltage drop)
D1032	Relay	Out	2 A 250 Vac 500 VA, 2 A 250 Vdc 80 W resistive load
D1033	Transistor	Out	100 mA at 35 V
D1035	Transistor	Out	100 mA at 35 V (≤ 1.5 V voltage drop)
D1044	Relay	Out	60 Vdc, 2 A (I.S. appl.), 2 A 250 Vac 500 VA, 2 A 250 Vdc 80 W resistive load (non I.S. appl.)
D1053	Relay	Alarm	2 A 250 Vac 500 VA, 2 A 250 Vdc 80 W resistive load
D1054	Relay	Alarm	2 A 250 Vac 500 VA, 2 A 250 Vdc 80 W resistive load
D1060	Transistor	Out	100 mA at 35 Vdc (≤ 1.5 V voltage drop)
D1073	Relay	Alarm	2 A 250 Vac 500 VA, 2 A 250 Vdc 80 W resistive load
D1080	Relay	Out	2 A 250 Vac 500 VA, 2 A 250 Vdc 80 W resistive load
D1081	Transistor	Out	100 mA at 35 V (≤ 1.5 V voltage drop)
D1092	Relay	Load	3 A 250 Vac 750 VA, 3 A 125 Vdc 120 W resistive load
D1092-069	Relay	Load	3 A 250 Vac 750 VA, 3 A 125 Vdc 120 W resistive load
D1093	Relay	Fault	3 A 250 Vac 750 VA, 3 A 125 Vdc 120 W resistive load, for output and fault
	Relay	Load	3 A 250 Vac 750 VA, 3 A 125 Vdc 120 W resistive load, for output and fault
D1130	Relay	Out	2 A 250 Vac 500 VA, 2 A 250 Vdc 80 W resistive load
D1180	Relay	Out	2 A 250 Vac 500 VA, 2 A 250 Vdc 80 W resistive load

3 Intrinsically safe parameters

D1010 series

		Co [μ F]	Lo [mH]	Lo/Ro [μ H/ Ω]
Term. 10-11, 14-15: Uo=26.3 V; Io=91 mA; Po=597 mW Characteristic: linear	IIC	0.095	4.3	59.6
	IIB	0.738	17.2	238.4
	IIA	2.508	34.5	476.8
	I	3.95	56.6	782.2
	IIIC	0.738	17.2	238.4
Term. 11-12 (passive input), 15-16 (passive input): Uo=1.1 V; Io=38 mA; Po=11 mW Ui=30 V; Ii=104 mA; Ci=1.05 μ F; Li=0 mH Characteristic: linear	IIC	100	11.3	3490
	IIB	1000	45.3	13963
	IIA	1000	90.7	27927
	I	1000	148.8	45820
	IIIC	1000	45.3	13963
Term. 10-11-12 (3-wire circuit), 14-15-16 (3-wire circuit): Uo=26.3 V; Io=91 mA; Po=597 mW Characteristic: linear	IIC	0.095	4.3	59.6
	IIB	0.738	17.2	238.4
	IIA	2.51	34.5	476.8
	I	3.95	56.6	782.2
	IIIC	0.738	17.2	238.4
Term. 15-12 (with 16-11 shorted) (D1010D): Uo=2.2 V; Io=38 mA; Po=21 mW Ui=30 V; Ii=104 mA; Ci=1.05 μ F; Li=0 mH Characteristic: linear	IIC	100	11.3	849
	IIB	1000	45.3	3396
	IIA	1000	90.7	6793
	I	1000	148.8	11143
	IIIC	1000	45.3	3396

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 14-11 (with 15-12 shorted) (D1010D): U _o =27.4 V; I _o =91 mA; P _o =624 mW Characteristic: linear	IIC	0.085	4.3	54.7
	IIB	0.675	17.2	218.9
	IIA	2.258	34.5	437.9
	I	3.968	56.6	718.5
	IIIC	0.675	17.2	218.9

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits. Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between separated intrinsically safe circuits.

D1010-046 series

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 11-12 (passive input), 15-16 (passive input): U _o =1.1 V; I _o =28 mA; P _o =8 mW U _i =30 V; I _i =104 mA; C _i =1.05 uF; L _i =0 mH Characteristic: linear	IIC	100	45	4654
	IIB	1000	181.4	18618
	IIA	1000	362.8	37236
	I	1000	595.2	61090
	IIIC	1000	181.4	18618
Term. 15-12 (with 16-11 shorted) (D1010D-046): U _o =2.2 V; I _o =28 mA; P _o =21 mW U _i =30 V; I _i =104 mA; C _i =1.05 uF; L _i =0 mH Characteristic: linear	IIC	100	45.35	1151
	IIB	1000	181.4	4607
	IIA	1000	362.8	9215
	I	1000	595.2	15118
	IIIC	1000	181.4	4607
Term. 10-11-12 (3-wire circuit), 14-15-16 (3-wire circuit): U _o =26.3 V; I _o =78.2 mA; P _o =514 mW Characteristic: linear	IIC	0.095	5.8	69.2
	IIB	0.738	23.2	276.8
	IIA	2.51	46.5	553.6
	I	3.95	76.3	908.3
	IIIC	0.738	23.2	276.8
Term. 10-11, 14-15: U _o =26.3 V; I _o =79 mA; P _o =514 mW Characteristic: linear	IIC	0.095	5.8	69.2
	IIB	0.738	23.2	276.8
	IIA	2.51	46.5	553.6
	I	3.95	76.3	908.3
	IIIC	0.738	23.2	276.8
Term. 14-11 (with 15-12 shorted) (D1010D-046): U _o =27.4 V; I _o =78.2 mA; P _o =542 mW Characteristic: linear	IIC	0.085	5.8	63
	IIB	0.675	23.2	252.2
	IIA	2.258	46.5	504.5
	I	3.968	76.3	827.8
	IIIC	0.675	23.2	252.2

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits. Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between separated intrinsically safe circuits.

D1012 series

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 11-12, 13-14, 15-16, 9-10: U _o =21.5 V; I _o =93 mA; P _o =496 mW Characteristic: linear	IIC	0.176	4.1	71.7
	IIB	1.2	16.4	287
	IIA	4.5	32.8	574
	I	6	53.8	941.7
	IIIC	1.2	16.4	287

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits. Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is not provided between separated intrinsically safe circuits.

D1014 series

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 10-11, 14-15: U _o =25.2 V; I _o =93 mA; P _o =585 mW Characteristic: linear	IIC	0.105	4.1	60.7
	IIB	0.819	16.4	242.9
	IIA	2.899	32.8	485.8
	I	4.15	54	797.1
	IIIC	0.819	16.4	242.9

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits. Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between separated intrinsically safe circuits.

D1020 series

		Co [μ F]	Lo [mH]	Lo/Ro [μ H/ Ω]
Term. 10-11, 14-15: U _o =25.2 V; I _o =87 mA; P _o =548 mW Characteristic: linear	IIC	0.105	4.6	64.9
	IIB	0.819	18.7	259.6
	IIA	2.899	37.5	519.3
	I	4.15	61.5	851.9
	IIIC	0.819	18.7	259.6

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits. Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between separated intrinsically safe circuits.

D1022 series

		Co [μ F]	Lo [mH]	Lo/Ro [μ H/ Ω]
Term. 13-14, 15-16: U _o =25.2 V; I _o =93 mA; P _o =585 mW Characteristic: linear	IIC	0.107	4.1	61.2
	IIB	0.82	16.4	244.9
	IIA	2.9	32.8	489.8
	I	4.15	53.8	803.7
	IIIC	0.82	16.4	244.9

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits. Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between separated intrinsically safe circuits.

D1030 series

		Co [μ F]	Lo [mH]	Lo/Ro [μ H/ Ω]
Term. 13-14, 15-16: U _o =10.7 V; I _o =15 mA; P _o =39 mW Characteristic: linear	IIC	2.23	172	930
	IIB	15.6	689	3720
	IIA	69	1300	7440
	I	60	2263	12200
	IIIC	15.6	689	3720

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits. Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between separated intrinsically safe circuits.

D1031 series

		Co [μ F]	Lo [mH]	Lo/Ro [μ H/ Ω]
Term. 11-12, 13-14, 15-16, 9-10: U _o =10.7 V; I _o =15 mA; P _o =39 mW Characteristic: linear	IIC	2.23	172	930
	IIB	15.6	689	3720
	IIA	69	1300	7440
	I	60	2263	12200
	IIIC	15.6	689	3720

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits. Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is not provided between separated intrinsically safe circuits.

D1032 series

		Co [μ F]	Lo [mH]	Lo/Ro [μ H/ Ω]
Term. 11-12, 13-14, 15-16, 9-10: U _o =9.6 V; I _o =10 mA; P _o =24 mW Characteristic: linear	IIC	3.5	379	1530
	IIB	25	1500	6150
	IIA	209	3000	12310
	I	99	4900	20200
	IIIC	25	1500	6150

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits. Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between separated intrinsically safe circuits.

D1033 series

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 11-12, 13-14, 15-16, 9-10: U _o =9.6 V; I _o =10 mA; P _o =24 mW Characteristic: linear	IIC	3.5	379	1530
	IIB	25	1500	6150
	IIA	209	3000	12310
	I	99	4900	20200
	IIIC	25	1500	6150

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits. Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between separated intrinsically safe circuits.

D1034 series

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 10-11, 14-15: U _o =9.6 V; I _o =11 mA; P _o =25 mW Characteristic: linear	IIC	3.6	336	1449
	IIB	26	1300	5790
	IIA	210	2600	11590
	I	99	4400	19020
	IIIC	26	1300	5790

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits. Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between separated intrinsically safe circuits.

D1035 series

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 14-16: U _o =10.9 V; I _o =22 mA; P _o =60 mW Characteristic: linear	IIC	2.05	75	600
	IIB	14.4	303	2402
	IIA	63	607	4804
	I	55	995.8	7882
	IIIC	14.4	303	2402
Term. 13-16: U _o =10.9 V; I _o =1.1 mA; P _o =3 mW U _i =30 V; C _i =0 μF; L _i =0 mH Characteristic: linear	IIC	2.05	29000	12000
	IIB	14.4	117000	48100
	IIA	63	235000	96200
	I	55	406000	157900
	IIIC	14.4	124000	48100
Term. 15-16: U _o =10.9 V; I _o =23 mA; P _o =60 mW Characteristic: linear	IIC	2.05	72	594
	IIB	14.4	290	2378
	IIA	63	580	4757
	I	55	995.8	7804
	IIIC	14.4	303	2378
Term. 14-15: U _o =15.5 V; I _o =13 mA; P _o =48 mW Characteristic: linear	IIC	0.508	235	585
	IIB	3.11	941	2342
	IIA	12.5	1883	4685
	I	34	3356	12600
	IIIC	8.7	1023	3840

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits.

D1040 series

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 11-12 (4 ch. parallel), 13-14 (4 ch. parallel), 15-16 (4 ch. parallel), 9-10 (4 ch. parallel): U _o =23.6 V; I _o =288 mA; P _o =1694 mW Characteristic: linear	IIC	0	0	0
	IIB	0.97	1.7	83.9
	IIA	3.5	3.4	167.9
	I	4.95	5.31	275.4
	IIIC	0.97	1.7	83.9
Term. 11-12 (3 ch. parallel), 13-14 (3 ch. parallel), 15-16 (3 ch. parallel), 9-10 (3 ch. parallel): U _o =23.6 V; I _o =216 mA; P _o =1271 mW Characteristic: linear	IIC	0	0	0
	IIB	0.97	3	111.9
	IIA	3.5	6	223.9
	I	4.95	9.9	367.3
	IIIC	0.97	3	111.9

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 11-12 (2 ch. parallel), 13-14 (2 ch. parallel), 15-16 (2 ch. parallel), 9-10 (2 ch. parallel): U _o =23.6 V; I _o =144 mA; P _o =847 mW Characteristic: linear	IIC	0.13	1.7	41.9
	IIB	0.97	6.8	167.9
	IIA	3.5	13.7	335.9
	I	4.95	22.48	551.2
	IIIC	0.97	6.8	167.9
Term. 11-12 (single channel), 13-14 (single channel), 15-16 (single channel), 9-10 (single channel): U _o =23.6 V; I _o =72 mA; P _o =424 mW Characteristic: linear	IIC	0.13	6.8	83.9
	IIB	0.97	27.4	335.9
	IIA	3.5	54.8	671.9
	I	4.95	90	1102
	IIIC	0.97	27.4	335.9

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits. Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is not provided between separated intrinsically safe circuits.

D1041 series

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 11-12 (4 ch. parallel), 13-14 (4 ch. parallel), 15-16 (4 ch. parallel), 9-10 (4 ch. parallel): U _o =23.6 V; I _o =198.4 mA; P _o =1167 mW Characteristic: linear	IIC	0	0	0
	IIB	0.97	3.6	121.9
	IIA	3.5	7.2	243.8
	I	4.95	11.84	399.9
	IIIC	0.97	3.6	121.9
Term. 11-12 (3 ch. parallel), 13-14 (3 ch. parallel), 15-16 (3 ch. parallel), 9-10 (3 ch. parallel): U _o =23.6 V; I _o =148.8 mA; P _o =875 mW Characteristic: linear	IIC	0.13	1.6	40.6
	IIB	0.97	6.4	162.5
	IIA	3.5	12.8	325
	I	4.95	21.1	533.2
	IIIC	0.97	6.4	162.5
Term. 11-12 (2 ch. parallel), 13-14 (2 ch. parallel), 15-16 (2 ch. parallel), 9-10 (2 ch. parallel): U _o =23.6 V; I _o =99.2 mA; P _o =584 mW Characteristic: linear	IIC	0.13	3.6	60.9
	IIB	0.97	14.4	243.8
	IIA	3.5	28.9	487.6
	I	4.95	47.4	800
	IIIC	0.97	14.45	243.8
Term. 11-12 (single channel), 13-14 (single channel), 15-16 (single channel), 9-10 (single channel): U _o =23.6 V; I _o =49.6 mA; P _o =292 mW Characteristic: linear	IIC	0.13	14.2	121.9
	IIB	0.97	57	487.6
	IIA	3.5	114	975.3
	I	4.95	187	1600
	IIIC	0.97	57	487.6

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits. Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is not provided between separated intrinsically safe circuits.

D1042 series

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 11-12 (4 ch. parallel), 13-14 (4 ch. parallel), 15-16 (4 ch. parallel), 9-10 (4 ch. parallel): U _o =23.6 V; I _o =352.8 mA; P _o =2073 mW Characteristic: linear	IIC	0	0	0
	IIB	0.97	1.1	68.6
	IIA	3.5	2.2	137.2
	I	4.95	3.74	225
	IIIC	0.97	1.1	68.6
Term. 11-12 (3 ch. parallel), 13-14 (3 ch. parallel), 15-16 (3 ch. parallel), 9-10 (3 ch. parallel): U _o =23.6 V; I _o =264.6 mA; P _o =1556 mW Characteristic: linear	IIC	0	0	0
	IIB	0.97	2	91.4
	IIA	3.5	4	182.9
	I	4.95	6.64	300
	IIIC	0.97	2	91.4
Term. 11-12 (2 ch. parallel), 13-14 (2 ch. parallel), 15-16 (2 ch. parallel), 9-10 (2 ch. parallel): U _o =23.6 V; I _o =176.4 mA; P _o =1038 mW Characteristic: linear	IIC	0.13	1.1	34.3
	IIB	0.97	4.5	137.2
	IIA	3.5	9.1	274.4
	I	4.95	14.9	450.2
	IIIC	0.97	4.5	137.2

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 11-12 (single channel), 13-14 (single channel), 15-16 (single channel), 9-10 (single channel): U _o =23.6 V; I _o =88.2 mA; P _o =519 mW Characteristic: linear	IIC	0.13	4.5	68.6
	IIB	0.97	18.2	274.4
	IIA	3.5	35.5	548.9
	I	4.95	59.9	900.5
	IIIC	0.97	18.2	274.4

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits. Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is not provided between separated intrinsically safe circuits.

D1043 series

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 11-12 (4 ch. parallel), 13-14 (4 ch. parallel), 15-16 (4 ch. parallel), 9-10 (4 ch. parallel): U _o =23.6 V; I _o =198.4 mA; P _o =1167 mW Characteristic: linear	IIC	0	0	0
	IIB	0.97	3.6	121.9
	IIA	3.5	7.2	243.8
	I	4.95	11.84	399.9
	IIIC	0.97	3.6	121.9
Term. 11-12 (3 ch. parallel), 13-14 (3 ch. parallel), 15-16 (3 ch. parallel), 9-10 (3 ch. parallel): U _o =23.6 V; I _o =148.8 mA; P _o =875 mW Characteristic: linear	IIC	0.13	1.6	40.6
	IIB	0.97	6.4	162.5
	IIA	3.5	12.8	325
	I	4.95	21.1	533.2
	IIIC	0.97	6.4	162.5
Term. 11-12 (2 ch. parallel), 13-14 (2 ch. parallel), 15-16 (2 ch. parallel), 9-10 (2 ch. parallel): U _o =23.6 V; I _o =99.2 mA; P _o =584 mW Characteristic: linear	IIC	0.13	3.6	60.9
	IIB	0.97	14.4	243.8
	IIA	3.5	28.9	487.6
	I	4.95	47.4	800
	IIIC	0.97	14.4	243.8
Term. 11-12 (single channel), 13-14 (single channel), 15-16 (single channel), 9-10 (single channel): U _o =23.6 V; I _o =49.6 mA; P _o =292 mW Characteristic: linear	IIC	0.13	14.2	121.9
	IIB	0.97	57	487.6
	IIA	3.5	114	975.3
	I	4.95	187	1600
	IIIC	0.97	57	487.6

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits. Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is not provided between separated intrinsically safe circuits.

D1044 series

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 13/14-15-16, 9/10-11-12: U _o =0 V; I _o =0 mA; P _o =0 mW U _i =60 V; I _i =2 A; C _i =0 uF; L _i =0 mH Characteristic: linear	IIC			
	IIB			
	IIA			
	I			
	IIIC			

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits. Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between separated intrinsically safe circuits.

D1045 series

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 13-14 (Out A), 9-10 (Out A): U _o =18.9 V; I _o =249 mA; P _o =1173 mW Characteristic: linear	IIC	0.26	0.58	30.3
	IIB	1.6	2.31	121.2
	IIA	6.3	4.62	242.5
	I	8.1	7.58	398.1
	IIIC	1.6	2.31	121.2
Term. 11-12 (Out B), 15-16 (Out B): U _o =18.9 V; I _o =307 mA; P _o =1286 mW Characteristic: linear	IIC	0.26	0.38	24.5
	IIB	1.6	1.52	98.3
	IIA	6.3	3	196.6
	I	8.1	4.98	332.9
	IIIC	1.6	1.52	101.4

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits. Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is not provided between separated intrinsically safe circuits.

D1046 series

		Co [μ F]	Lo [mH]	Lo/Ro [μ H/ Ω]
Term. 13-14, 9-10: U _o =23.6 V; I _o =366 mA; P _o =1600 mW Characteristic: linear	IIC	0	0	0
	IIB	0.97	1.06	66
	IIA	3.5	2.12	132.1
	I	4.95	3.48	218.8
	IIIC	0.97	1.06	66

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits. Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is not provided between separated intrinsically safe circuits.

D1048 series

		Co [μ F]	Lo [mH]	Lo/Ro [μ H/ Ω]
Term. 13-16 (Out A): U _o =24.9 V; I _o =147 mA; P _o =907 mW Characteristic: linear	IIC	0.112	1.65	39.2
	IIB	0.85	6.63	156.8
	IIA	3.01	13.2	313.6
	I	4.35	21.78	514.6
	IIIC	0.86	6.63	156.8
Term. 14-16 (Out B): U _o =24.9 V; I _o =110 mA; P _o =681 mW Characteristic: linear	IIC	0.112	2.9	52.2
	IIB	0.85	11.8	208.9
	IIA	3.01	23.6	417.8
	I	4.35	40.36	700.6
	IIIC	0.86	12.3	213.5
Term. 15-16 (Out C): U _o =24.9 V; I _o =93 mA; P _o =571 mW Characteristic: linear	IIC	0.112	4.19	62.3
	IIB	0.85	16.7	249.4
	IIA	3.01	33.5	498.9
	I	4.35	55.09	818.5
	IIIC	0.86	16.7	249.4

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits.

D1049 series

		Co [μ F]	Lo [mH]	Lo/Ro [μ H/ Ω]
Term. 13-16 (Out A): U _o =24.9 V; I _o =147 mA; P _o =907 mW Characteristic: linear	IIC	0.112	1.65	39.2
	IIB	0.85	6.63	156.8
	IIA	3.01	13.2	313.6
	I	4.35	21.78	514.6
	IIIC	0.86	6.63	156.8
Term. 14-16 (Out B): U _o =24.9 V; I _o =110 mA; P _o =681 mW Characteristic: linear	IIC	0.112	2.9	52.2
	IIB	0.85	11.8	208.9
	IIA	3.01	23.6	417.8
	I	4.35	40.36	700.6
	IIIC	0.86	12.3	213.5
Term. 15-16 (Out C): U _o =24.9 V; I _o =93 mA; P _o =571 mW Characteristic: linear	IIC	0.112	4.19	62.3
	IIB	0.85	16.7	249.4
	IIA	3.01	33.5	498.9
	I	4.35	55.09	818.5
	IIIC	0.86	16.7	249.4

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits.

D1052 series

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 10-11-12, 14-15-16: U _o =10.8 V; I _o =4 mA; P _o =11 mW U _i =30 V; C _i =4.5 μF; L _i =0 mH Characteristic: linear	IIC	2.135	2500	3520
	IIB	14.995	10000	14090
	IIA	65.995	20000	28180
	I	58	33000	46220
	IIIC	14.995	10000	14090

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits. Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between separated intrinsically safe circuits.

D1053 series

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 14-15-16: U _o =10.8 V; I _o =4 mA; P _o =11 mW U _i =30 V; C _i =4.5 μF; L _i =0 mH Characteristic: linear	IIC	2.135	2500	3520
	IIB	14.995	10000	14090
	IIA	65.995	20000	28180
	I	58	33000	46220
	IIIC	14.995	10000	14090

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits.

D1054 series

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 15-16: U _o =1.1 V; I _o =56 mA; P _o =16 mW U _i =30 V; I _i =128 mA; C _i =1.05 μF; L _i =0 mH Characteristic: linear	IIC	100	11.3	2327
	IIB	1000	45.3	9309
	IIA	1000	90.7	18618
	I	1000	148	30.55
	IIIC	1000	45.3	9309
Term. 14-15: U _o =26.3 V; I _o =91 mA; P _o =597 mW Characteristic: linear	IIC	0.095	4.3	59.6
	IIB	0.738	17.2	238.4
	IIA	2.5	34.5	476.8
	I	4.39	60	782.2
	IIIC	0.738	17.2	238.4

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits.

D1060 series

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 13-16: U _o =10.9 V; I _o =1.1 mA; P _o =3 mW U _i =30 V; C _i =1.05 μF; L _i =0 mH Characteristic: linear	IIC	2.05	29000	12000
	IIB	14.4	117000	48100
	IIA	63	235000	96200
	I	55	406000	157900
	IIIC	14.4	117000	48100
Term. 14-16: U _o =10.9 V; I _o =22 mA; P _o =60 mW Characteristic: linear	IIC	2.05	75	600
	IIB	14.4	303	2402
	IIA	63	607	4804
	I	55	995.8	7882
	IIIC	14.4	303	2402
Term. 15-16: U _o =10.9 V; I _o =23 mA; P _o =60 mW Characteristic: linear	IIC	2.05	72	594
	IIB	14.4	290	2378
	IIA	63	580	4757
	I	55	995.8	7804
	IIIC	14.4	290	2378
Term. 14-15: U _o =15.5 V; I _o =13 mA; P _o =48 mW Characteristic: linear	IIC	0.508	235	585
	IIB	3.11	941	2342
	IIA	12.5	1883	4685
	I	34	3356	12600
	IIIC	3.11	941	2342

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits.

D1061 series

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 13-14: U _o =3.7 V; I _o =225 mA; P _o =206 mW U _i =30 V; I _i =282 mA; C _i =0 μF; L _i =0 mH Characteristic: linear	IIC	100	0.7	173
	IIB	1000	2.8	693
	IIA	1000	5.6	1386
	I	1000	11.75	2274
	IIIC	1000	2.8	693

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits.

D1061-077 series

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 13-14: U _o =3.7 V; I _o =93 mA; P _o =85 mW U _i =30 V; I _i =136 mA; C _i =0 μF; L _i =0 mH Characteristic: linear	IIC	100	4.1	422.7
	IIB	1000	16.7	1690.9
	IIA	1000	33.4	3381.9
	I	1000	54.9	5548.4
	IIIC	1000	16.7	1690.9

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits.

D1062 series

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 15-16 (with 3 wires isolated sensor): U _o =1.1 V; I _o =12 μA; P _o =4 μW U _i =30 V; C _i =0 μF; L _i =1.5 mH Characteristic: linear	IIC	100	1000	11000000
	IIB	1000	1000	46000000
	IIA	1000	1000	93000000
	I	1000	1000	152000000
	IIIC	1000	1000	46000000
Term. 14-16: U _o =25.9 V; I _o =90 mA; P _o =576 mW Characteristic: linear	IIC	0.1	4.4	61.7
	IIB	0.77	17.9	247.1
	IIA	2.63	35.8	494.3
	I	4.02	58.7	811
	IIIC	0.77	17.9	247.1
Term. 15-16 (with 13-14 connected): U _o =27 V; I _o =90 mA; P _o =576 mW Characteristic: linear	IIC	0.09	4.4	56.8
	IIB	0.705	17.9	227.3
	IIA	2.33	35.8	454.7
	I	3.75	58.7	746.1
	IIIC	0.705	17.9	227.3

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits.

D1063 series

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 13-14: U _o =17.3 V; I _o =8 mA; P _o =35 mW U _i =30 V; C _i =2.1 μF; L _i =0 mH Characteristic: linear	IIC	0.351	300	1020
	IIB	2.06	1200	4110
	IIA	8.5	2400	8220
	I	11.8	3800	15470
	IIIC	2.06	1200	4110
Term. 9-10-11-12-13-14: U _o =17.3 V; I _o =199.6 mA; P _o =864 mW Characteristic: linear	IIC	0.351	0.85	41.2
	IIB	2.058	3.4	164.8
	IIA	8.498	6.8	329.6
	I	11.79	11.75	543.25
	IIIC	2.06	3.4	164.8

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits.

D1064 series

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 9-10-11-12-13-14: U _o =5.9 V; I _o =196 mA; P _o =576 mW Characteristic: trapezoidal	IIC	39	0.93	61.7
	IIB	996	3.71	247
	IIA	996	7.42	494.1
	I	996	12.17	810.6
	IIIC	996	3.71	247

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits.

D1072 series

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 13-14-15-16, 9-10-11-12: U _o =10.8 V; I _o =9 mA; P _o =24 mW U _i =18 V; C _i =6 μF; L _i =0 mH Characteristic: linear	IIC	2.134	468	1510
	IIB	14.994	1874	6050
	IIA	65.994	3749	12100
	I	58	6100	19850
	IIIC	14.994	1874	6050

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits. Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between separated intrinsically safe circuits.

D1073 series

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 13-14-15-16: U _o =10.8 V; I _o =9 mA; P _o =24 mW U _i =18 V; C _i =6 μF; L _i =0 mH Characteristic: linear	IIC	2.134	468	1510
	IIB	14.994	1874	6050
	IIA	65.994	3749	12100
	I	58	6100	19850
	IIIC	14.994	1874	6050

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits.

D1080 series

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 10-12, 14-16: U _o =15.8 V; I _o =13 mA; P _o =51 mW Characteristic: linear	IIC	0.478	200	706
	IIB	2.88	800	2820
	IIA	11.6	1700	5650
	I	13.6	2800	9270
	IIIC	2.88	800	2820
Term. 13-15, 9-11: U _o =15.8 V; I _o =13 mA; P _o =51 mW Characteristic: linear	IIC	0.478	200	706
	IIB	2.88	800	2820
	IIA	11.6	1700	5650
	I	13.6	3200	9270
	IIIC	2.88	800	2820
Term. 13-16, 9-12: U _o =15.8 V; I _o =109 mA; P _o =428 mW Characteristic: linear	IIC	0.478	3	83
	IIB	2.88	12	332
	IIA	11.6	24	664
	I	13.6	39.27	1090
	IIIC	2.88	12	332

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits. Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between separated intrinsically safe circuits.

D1081 series

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 10-12, 14-16: U _o =15.8 V; I _o =13 mA; P _o =51 mW Characteristic: linear	IIC	0.478	200	706
	IIB	2.88	800	2820
	IIA	11.6	1700	5650
	I	13.6	2800	9270
	IIIC	2.88	800	2820

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 13-15, 9-11: U _o =15.8 V; I _o =13 mA; P _o =51 mW Characteristic: linear	IIC	0.478	200	706
	IIB	2.88	800	2820
	IIA	11.6	1700	5650
	I	13.6	3200	9270
	IIIC	2.88	800	2820
Term. 13-16, 9-12: U _o =15.8 V; I _o =109 mA; P _o =428 mW Characteristic: linear	IIC	0.478	3	83
	IIB	2.88	12	332
	IIA	11.6	24	664
	I	13.6	39.27	1090
	IIIC	2.88	12	332

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits. Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between separated intrinsically safe circuits.

D1130 series

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 13-14, 15-16: U _o =10.7 V; I _o =15 mA; P _o =39 mW Characteristic: linear	IIC	2.23	172	930
	IIB	15.6	689	3720
	IIA	69	1300	7440
	I	60	2263	12200
	IIIC	15.6	689	3720

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits. Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is not provided between separated intrinsically safe circuits.

D1180 series

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 10-12, 14-16: U _o =15.8 V; I _o =13 mA; P _o =51 mW Characteristic: linear	IIC	0.478	200	706
	IIB	2.88	800	2820
	IIA	11.6	1700	5650
	I	13.6	2800	9270
	IIIC	2.88	800	2820
Term. 13-15, 9-11: U _o =15.8 V; I _o =13 mA; P _o =51 mW Characteristic: linear	IIC	0.478	200	706
	IIB	2.88	800	2820
	IIA	11.6	1700	5650
	I	13.6	3200	9270
	IIIC	2.88	800	2820
Term. 13-16, 9-12: U _o =15.8 V; I _o =109 mA; P _o =428 mW Characteristic: linear	IIC	0.478	3	83
	IIB	2.88	12	332
	IIA	11.6	24	664
	I	13.6	39.27	1090
	IIIC	2.88	12	332

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits. Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between separated intrinsically safe circuits.

PSD1001 series

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 11-12 (4 ch. parallel), 13-14 (4 ch. parallel), 15-16 (4 ch. parallel), 9-10 (4 ch. parallel): U _o =23.6 V; I _o =352.8 mA; P _o =2073 mW Characteristic: linear	IIC	0	0	0
	IIB	0.97	1.1	68.6
	IIA	3.5	2.2	137.2
	I	4.95	3.74	225
	IIIC	0.97	1.1	68.6
Term. 11-12 (3 ch. parallel), 13-14 (3 ch. parallel), 15-16 (3 ch. parallel), 9-10 (3 ch. parallel): U _o =23.6 V; I _o =264.6 mA; P _o =1556 mW Characteristic: linear	IIC	0	0	0
	IIB	0.97	2	91.4
	IIA	3.5	4	182.9
	I	4.95	6.64	300
	IIIC	0.97	2	91.4

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 11-12 (2 ch. parallel), 13-14 (2 ch. parallel), 15-16 (2 ch. parallel), 9-10 (2 ch. parallel): U _o =23.6 V; I _o =176.4 mA; P _o =1038 mW Characteristic: linear	IIC	0.13	1.1	34.3
	IIB	0.97	4.5	137.2
	IIA	3.5	9.1	274.4
	I	4.95	14.9	450.2
	IIIC	0.97	4.5	137.2
Term. 11-12 (single channel), 13-14 (single channel), 15-16 (single channel), 9-10 (single channel): U _o =23.6 V; I _o =88.2 mA; P _o =519 mW Characteristic: linear	IIC	0.13	4.5	68.6
	IIB	0.97	18.2	274.4
	IIA	3.5	35.5	548.9
	I	4.95	59.9	900.5
	IIIC	0.97	18.2	274.4

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits.

PSD1001C series

		Co [uF]	Lo [mH]	Lo/Ro [uH/Ω]
Term. 13/15-14/16: U _o =23.6 V; I _o =352.8 mA; P _o =1674 mW Characteristic: linear	IIC	0	0	0
	IIB	0.97	1.1	68.6
	IIA	3.5	2.2	137.2
	I	4.95	3.74	225
	IIIC	0.97	1.1	68.6

Isolation in accordance with EN/IEC 60079-11 clause 6.3.13 is provided between non-intrinsically safe circuits and intrinsically safe circuits.

www.gminternational.com



Note: This manual contains only safety instructions.

For the complete installation and user manuals, data sheets and certificates, supplier code of conduct, code of ethics, terms and conditions of sale and warranty please refer to www.gminternational.com.

Via G. Mameli, 53/55
I-20851 Villasanta (MB) - Italy