

Technical Data

Certificates	<p>Europe (CENELEC) PTB 02 ATEX 2088 PTB 02 ATEX 2009 (Installation in Zone 2)</p> <p>USA FM Approval 3017163</p> <p>Canada CSA 1497596 (LR 43394)</p> <p>Russia CTB 04.B00144</p> <p>Ukraine ISCVE</p>
Explosion protection	<p>⊕ II (2) GD [EEx ib] IIB/IIC ⊕ II 3 G EEx nA II T4 (Installation in Zone 2)</p> <p>I.S. circuits for: Class I, II, III, Division 1, Groups A, B, C, D, E, F, G I.S. circuits for: Class I, Zone 1, Group IIC I.S. circuits for: Class I, II, III, Division 1, Groups C, D, E, F, G I.S. circuits for: Class I, Zone 1, Group IIB Class I, Division 2, Groups A, B, C, D Class I, Zone 2, Group IIC</p> <p>I.S. circuits for: Class I, Groups A, B, C, D; Class II Groups E, F, G; Class III Class I, Zone 2, Groups IIC/IIB</p>
Enclosure material	Polyamide 6 GF
Installation	in Zone 2, Division 2 and in safe area
Degree of Protection	according to IEC 60529
	terminal enclosure: IP 20 housing: IP 40
Connection	4 cage terminals, each maximum 1.5 mm ² flexible / solid 2 PA-terminals, each maximum 4 mm ² flexible / solid
Ambient temperature	- 20 °C ... + 60 °C
Storage	- 20 °C ... + 75 °C
Maximum relative humidity	95 % mean, no dewing
Leakage current at U _N	≤ 2 μA (if not stated otherwise)
Temperature effect	≤ 0.25 % / 10 K
Frequency	at electronic current limitation: ≤ 10 kHz
Weight	approx. 0.115 kg

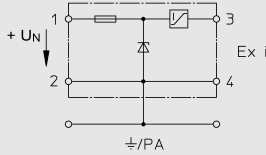
Dimension drawings see page 2/6

Accessories see page 2/39

We reserve the right to make alterations to the technical data, weights, dimensions, designs and products available without notice. The illustrations cannot be considered binding.

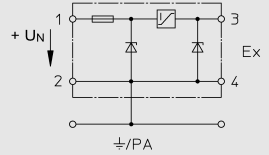
9004/01-..., 9004/51-...

Single-channel safety barriers with electronic current limitation for positive polarity



10013E00

Picture A



10014E00

Picture B

Selection Table

U _N	R _{min.}	R _{max.}	I _{max.}	ΔU	Safety values								Ordering Code
					U _o	I _o	P _o	IIC	IIB	C _o	L _o	C _o	
V	Ω	Ω	mA	V	V	mA	mW	mH	μF	mH	μF		
Single-channel safety barriers with electronic current limitation, polarity +													
12	26	30	40	0.9	16.8	50	840	0.86	0.16	2.5	1.2	Pic. A	9004/01-168-050-001
12	20	24	80	0.9	16.8	100	1680	--	--	1.6	1.1	Pic. A	9004/01-168-100-001
16	34	44	40	0.9	20	50	1000	--	--	2.5	0.68	Pic. A	9004/01-200-050-001
20	48	53	40	0.9	26.3	50	1315	--	--	1.3	0.33	Pic. A	9004/01-263-050-001
24	60	68	20	0.9	28	25	700	--	--	2.5	0.28	Pic. A	9004/01-280-025-001
24	50	56	35	0.9	28	45	1260	--	--	1.5	0.28	Pic. A	9004/01-280-045-001
26	67	73	20	0.9	31.5	25	787.5	--	--	2.5	0.23	Pic. A	9004/01-315-025-001
23 ... 27	--	--	40	--	20.6	50	1030	--	--	2.5	0.58	Pic. B	9004/51-206-050-001
23 ... 27	--	--	70	--	20.6	85	1751	--	--	0.37	0.68	Pic. B	9004/51-206-085-001
24 ... 26	--	--	25	--	22	30	660	1.3	0.073	2.5	0.55	Pic. B	9004/51-220-030-001

*) maximum leakage current < 2 mA; maximum output voltage 17 V

**) maximum leakage current < 2 mA; maximum output voltage 18 V

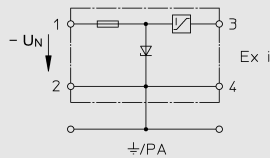
Functional and Maximum Safety Values:

U _N	Rated operating voltage	ΔU	Additional voltage drop through the safety barrier	L _o	Maximum permissible external inductance
R _{min.}	Minimum resistance of the safety barrier	U _o	Maximum voltage	C _o	Maximum permissible external capacity
R _{max.}	Maximum resistance of the safety barrier	I _o	Maximum current		
I _{max.}	Maximum current through the safety barrier	P _o	Maximum power		



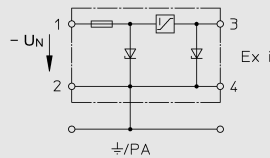
9004/00-..., 9004/50-...

Single-channel safety barriers with electronic current limitation for negative polarity



10015E00

Picture C



10016E00

Picture D

Selection Table

U _N	R _{min.}	R _{max.}	I _{max.}	ΔU	Safety values								Ordering Code
					U _o	I _o	P _o	IIC	C _o	IIB	L _o	C _o	
V	Ω	Ω	mA	V	V	mA	mW	mH	μF	mH	μF		
Single-channel safety barriers with electronic current limitation, Polarity: -													
12	26	30	40	0.9	16.8	50	840	0.86	0.16	2.5	1.2	Pic. C	9004/00-168-050-001
12	20	24	80	0.9	16.8	100	1680	--	--	1.6	1.1	Pic. C	9004/00-168-100-001
16	34	44	40	0.9	20	50	1000	--	--	2.5	0.68	Pic. C	9004/00-200-050-001
20	48	53	40	0.9	26.3	50	1315	--	--	1.3	0.33	Pic. C	9004/00-263-050-001
24	60	68	20	0.9	28	25	700	--	--	2.5	0.28	Pic. C	9004/00-280-025-001
24	50	56	35	0.9	28	45	1260	--	--	1.5	0.28	Pic. C	9004/00-280-045-001
26	67	73	20	0.9	31.5	25	787.5	--	--	2.5	0.23	Pic. C	9004/00-315-025-001
23 ... 27	--	--	40	--	20.6	50	1030	--	--	2.5	0.58	Pic. D	9004/50-206-050-001
23 ... 27	--	--	70	--	20.6	85	1751	--	--	0.37	0.68	Pic. D	9004/50-206-085-001
24 ... 26	--	--	25	--	22	30	660	1.3	0.073	2.5	0.55	Pic. D	9004/50-220-030-001

*) maximum leakage current < 2 mA; maximum output voltage 17 V

**) maximum leakage current < 2 mA; maximum output voltage 18 V

Functional and Maximum Safety Values:

U _N	Rated operating voltage	ΔU	Additional voltage drop through the safety barrier	L _o	Maximum permissible external inductance
R _{min.}	Minimum resistance of the safety barrier	U _o	Maximum voltage	C _o	Maximum permissible external capacity
R _{max.}	Maximum resistance of the safety barrier	I _o	Maximum current		
I _{max.}	Maximum current through the safety barrier	P _o	Maximum power		