

EU DECLARATION OF CONFORMITY

(5114DoC_103)

As manufacturer

PR electronics A/S, Lerbakken 10, DK-8410 Rønde

hereby declares that the following product:

Type: 5114

Name: Programmable transmitter

From serial no.: 191053001

is in conformity with the following directives and standards:

The EMC Directive 2014/30/EU and later amendments

EN 61326-1 : 2013

Immunity test requirements for equipment intended to be used in an industrial electromagnetic environment. For specification of the acceptable EMC performance level, refer to the electrical specifications for the device.

The Low Voltage Directive 2014/35/EU and later amendments

EN 61010-1 : 2010 + A1 : 2019

The ATEX Directive 2014/34/EU and later amendments

EN 50014 : 1997 E incl. A1+A2, EN 50020 : 2002 E and EN 50281-1-1 : 1998 incl. A1

ATEX certificate: DEMKO 99ATEX124571 (5114B)

No changes are required to enable compliance with the replacement standards:

EN 60079-0 : 2012 + A11 : 2013 and EN 60079-11 : 2012

ATEX notified body (type approval)

UL International Demko A/S

Borupvang 5

DK-2750 Ballerup

The RoHS2 Directive 2011/65/EU and later amendments

EN IEC 63000 : 2018

Notified body 0344

DEKRA Certification B.V.

Meander 1051, 6825 MJ Arnhem

P.O. Box 5185, 6802 ED Arnhem

The Netherlands

This declaration of conformity is issued under the sole responsibility of the manufacturer.

Rønde, 11 February 2022

Stig Lindemann, CTO

Manufacturer's signature

EU DECLARATION OF CONFORMITY

(5115DoC_103)

As manufacturer

PR electronics A/S, Lerbakken 10, DK-8410 Rønde

hereby declares that the following product:

Type: 5115

Name: Signal calculator

From serial no.: 191129001

is in conformity with the following directives and standards:

The EMC Directive 2014/30/EU and later amendments

EN 61326-1 : 2013

Immunity test requirements for equipment intended to be used in an industrial electromagnetic environment. For specification of the acceptable EMC performance level, refer to the electrical specifications for the device.

The Low Voltage Directive 2014/35/EU and later amendments

EN 61010-1 : 2010 + A1 : 2019

The ATEX Directive 2014/34/EU and later amendments

EN 50014 : 1997 E incl. A1+A2, EN 50020 : 2002 E and EN 50281-1-1 : 1998 incl. A1

ATEX certificate: DEMKO 00ATEX128567 (5115B)

No changes are required to enable compliance with the replacement standards:

EN 60079-0 : 2012 + A11 : 2013 and EN 60079-11 : 2012

ATEX notified body (type approval)

UL International Demko A/S

Borupvang 5

DK-2750 Ballerup

The RoHS2 Directive 2011/65/EU and later amendments

EN IEC 63000 : 2018

Notified body 0344

DEKRA Certification B.V.

Meander 1051, 6825 MJ Arnhem

P.O. Box 5185, 6802 ED Arnhem

The Netherlands

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Rønde, 11 February 2022

Stig Lindemann, CTO

Manufacturer's signature

EU DECLARATION OF CONFORMITY

(5116DoC_105)

As manufacturer

PR electronics A/S, Lerbakken 10, DK-8410 Rønde

hereby declares that the following product:

Type: 5116

Name: Programmable transmitter

From serial no.: 201864001

is in conformity with the following directives and standards:

The EMC Directive 2014/30/EU and later amendments

EN 61326-1 : 2013

Immunity test requirements for equipment intended to be used in an industrial electromagnetic environment. For specification of the acceptable EMC performance level, refer to the electrical specifications for the device.

The Low Voltage Directive 2014/35/EU and later amendments

EN 61010-1 : 2010 + A1 : 2019

The ATEX Directive 2014/34/EU and later amendments

EN IEC 60079-0 : 2018 and EN 60079-11 : 2012

ATEX certificate: KEMA 04ATEX1316 X (5116B)

ATEX notified body (type approval)

DEKRA Certification B.V.

Meander 1051, 6825 MJ Arnhem

P.O. Box 5185, 6802 ED Arnhem

The Netherlands

The RoHS2 Directive 2011/65/EU and later amendments

EN IEC 63000 : 2018

Notified body 0344

DEKRA Certification B.V.

Meander 1051, 6825 MJ Arnhem

P.O. Box 5185, 6802 ED Arnhem

The Netherlands

This declaration of conformity is issued under the sole responsibility of the manufacturer.

Rønde, 11 February 2022

Stig Lindemann, CTO

Manufacturer's signature

EU DECLARATION OF CONFORMITY

(5131DoC_104)

As manufacturer

PR electronics A/S, Lerbakken 10, DK-8410 Rønde

hereby declares that the following product:

Type: 5131

Name: 2-wire programmable transmitter

From serial no.: 251685001-251688100

is in conformity with the following directives and standards:

The EMC Directive 2014/30/EU and later amendments

EN 61326-1 : 2021

EN 61326-1 : 2013

Immunity test requirements for equipment intended to be used in an industrial electromagnetic environment. For specification of the acceptable EMC performance level, refer to the electrical specifications for the device.

The Low Voltage Directive 2014/35/EU and later amendments

EN 61010-1 : 2010 + A1 : 2019

The ATEX Directive and later amendments

EN IEC 60079-0 : 2018 and EN 60079-11 : 2012

ATEX certificate: DEKRA 24ATEX0020 (5131B)

ATEX notified body (type approval)

DEKRA Certification B.V.

Meander 1051, 6825 MJ Arnhem

P.O. Box 5185, 6802 ED Arnhem

The Netherlands

The RoHS2 Directive 2011/65/EU and later amendments

EN IEC 63000 : 2018

Notified body 0344

DEKRA Certification B.V.

Meander 1051, 6825 MJ Arnhem

P.O. Box 5185, 6802 ED Arnhem

The Netherlands

This declaration of conformity is issued under the sole responsibility of the manufacturer.

Rønde, 20 August 2025

Stig Lindemann, CTO

Manufacturer's signature

ATEX Installation drawing 5116QA01-V3R0

5116B

For safe installation of 5116B the following must be observed. The module shall only be installed by qualified personnel who are familiar with the national and international laws, directives and standards that apply to this area. Year of manufacture can be taken from the first two digits in the serial number.

ATEX Certificate

KEMA 04ATEX1316X

Marking

II (1) G [Ex ia Ga] IIC/IIB/IIA

II (1) D [Ex ia Da] IIIC

Standards

EN 60079-0 : 2018, EN 60079-11 : 2012

Hazardous Area

Zone 0, 1, 2, 20, 21, 22

Non Hazardous Area

-20 ≤ Ta ≤ 60°C

2 wire trans.

3 wire pot.

V_{in} > 2.5 V

Current

V_{in} < 2.5 V

Bi-pol. mV

RTD

TC

44

43

42

41

54

53

52

51

33

32

31

24

23

22

21

14

13

12

11

5116B

Supply / Output / Relay (terminal 31, 32, 33) (terminal 11, 12, 13, 14) (terminal 21, 22, 23, 24)

U_m: 253 VAC

PR electronics

5131QA01

LERBAKKEN 10, 8410 RØNDE DENMARK

ATEX Installation drawing

For safe installation of 5131B the following must be observed. The module shall only be installed by qualified personnel who are familiar with the national and international laws, directives and standards that apply to this area. Year of manufacture can be taken from the first two digits in the serial number.

ATEX Certificate

DEKRA 24ATEX0020

Marking

II (1) G [Ex ia Ga] IIC/IIB/IIA

II (1) D [Ex ia Da] IIIC

Hazardous Area

Zone 0, 1, 2, 20, 21, 22

Non-Hazardous Area

-20°C ≤ Ta ≤ 60°C

44

43

42

41

54

53

52

51

Channel 1

Channel 2

13

11

23

21

5131B

Supply / Output (Terminal 11 and 13) (Terminal 21 and 23) U_m = 250 V

5131B1A/B: Terminal 41-44 and 51-54

5131B2A/B: Terminal 41-43 and 51-53

5131B3B: Terminal 41-44 and 51-53

U _o	8.0 V	IIC	8 μF	350 mH
I _o	10.0 mA	IIB, IIIC	95 μF	1000 mH
P _o	20 mW	IIA	1000 μF	1000 mH

Inputs and loop supply outputs are all galvanic isolated from each other. When two or more units are placed next to each other it has to be assured that all the Ex-terminal numbers 41...44 and 51...54 are placed on the same side and are separated from the frame and the non-intrinsically safe circuits of the units which could be mounted above or below it.

Programming of the 5131B:

Programming of the 5131B module is done by use of Loop Link 5909 outside hazardous area. For the dedicated LoopLink ports U_m=60V (J101 and J301). No sensors located in the hazardous area are allowed to be connected to the 5131B while using LoopLink 5909.

Troubleshooting/maintenance:

The output current of the module can be measured without disconnection any wires/cables by placing a handheld ampere meter between port 12 and port 13 (same applies for port 22 and 23). For these ports U_m = 0V. No permanent cables are allowed to be installed in port 12 or port 22.

FM CONTROL DRAWING NO. 5116QF01

Hazardous (Classified) Location

Class I, Division 1, Group A,B,C,D

Class II, Division 1 Group E, F, G

Class III, Division 1

Class I, Zone 0 and 1, Group IIC, IIB, IIA

Class II, Zone 20 and 21

Unclassified Location

or

Hazardous (Classified) Location

Class I, Division 2, Group A,B,C,D

Class I, Zone 2, Group IIC, IIB, IIA

Simple Apparatus or Intrinsically safe apparatus with entity parameters:

V_{max} (U_i) ≥ V_t (U_o)

I_{max} (I_i) ≥ I_t (I_o)

P_i ≥ P_o

Ca ≥ C_{cable} + C_i

La ≥ L_{cable} + L_i

The sum of capacitance and inductance of cable and intrinsic safe equipment must be less or equal to Ca and La

44

43

42

41

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51

14

13

12

11

24

23

22

21

5116B

Terminal	Voc (V)	Isc (mA)	Po (mW)	La (mH)			Ca (μF)		
				A,B	C,E	D,F,G	A,B	C,E	D,F,G
41,42,43,44	7.5	2.2	4.2	1000	1000	1000	6	36	445
51,52,53	7.5	2.2	4.2	1000	1000	1000	6	36	445
51,52,53,54	28	93.0	650	3	16	31	0.075	0.645	2

Terminal (31, 33) Supply:

AC Voltage 21.6 – 253 VAC

DC Voltage 19.2 – 300 VDC

Power max. 3.0 W

Terminal (11, 12, 13, 14) Analog output:

Current 0/4 – 20 mA DC

Voltage 0 – 10 VDC

Terminal (21, 22) and (23, 24) Relay 1 and 2:

Voltage max. 250 VAC / VDC

AC Power max. 500 VA

AC Current max. 2 AAC

DC Current @ ≤ 30VDC 2ADC

DC Current @ ≥ 30VDC 1380 * U⁻² * 1.0085^U

Installation notes

The intrinsically safe circuits are galvanically connected to the communications interface unit.

The communications interface may only be connected temporally, under the condition that the connectors with terminal numbers 41..44 and 51..54 are disconnected on the 5116B.

When a higher ingress protection than IP20 is required, this has to be achieved by an additional enclosure which is suitable for the applicable environmental conditions.

In type of protection [Ex ia Da] the parameters for intrinsic safety for gas group IIB are applicable

When two or more units are placed next to each other it has to be assured that all the terminal numbers 41...44 and 51...54 are placed on the same side and are separated from the non-intrinsically safe circuits of the units which could be mounted above or below it.

Each combination of circuits (to terminations 41...44 or to terminations 51...53 or to terminations 51..54) shall be connected via separated cables or if the combinations are in one cable shall be type A or B in accordance with EN60079-14.

Programming of the 5116B module is done by use of Loop Link 5909 outside hazardous area. If the module is installed in hazardous area programming is allowed only if the area is known to be safe.

IECEx Installation drawing

For safe installation of 5131B the following must be observed. The module shall only be installed by qualified personnel who are familiar with the national and international laws, directives and standards that apply to this area. Year of manufacture can be taken from the first two digits in the serial number.

IECEx Certificate

IECEx DEK 24.0017

Marking

IECEx

[Ex ia Ga] IIC/IIB/IIA

[Ex ia Da] IIIC

Hazardous Area

Zone 0, 1, 2, 20, 21, 22

Non-Hazardous Area

-20°C ≤ Ta ≤ 60°C

44

43

42

41

54

53

52

51

Channel 1

Channel 2

13

11

23

21

5131B

Supply / Output (Terminal 11 and 13) (Terminal 21 and 23) U_m = 250 V

5131B1A/B: Terminal 41-44 and 51-54

5131B2A/B: Terminal 41-43 and 51-53

5131B3B: Terminal 41-44 and 51-53

U _o	8.0 V	IIC	8 μF	350 mH
I _o	10.0 mA	IIB, IIIC	95 μF	1000 mH
P _o	20 mW	IIA	1000 μF	1000 mH

Inputs and loop supply outputs are all galvanic isolated from each other. When two or more units are placed next to each other it has to be assured that all the Ex-terminal numbers 41...44 and 51...54 are placed on the same side and are separated from the frame and the non-intrinsically safe circuits of the units which could be mounted above or below it.

Programming of the 5131B:

Programming of the 5131B module is done by use of Loop Link 5909 outside hazardous area. For the dedicated LoopLink ports U_m=60V (J101 and J301). No sensors located in the hazardous area are allowed to be connected to the 5131B while using LoopLink 5909.

Troubleshooting/maintenance:

The output current of the module can be measured without disconnection any wires/cables by placing a handheld ampere meter between port 12 and port 13 (same applies for port 22 and 23). For these ports U_m = 0V. No permanent cables are allowed to be installed in port 12 or port 22.

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Version Revision

V6R0

Prepared by:

JNY

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