

EU DECLARATION OF CONFORMITY



(5114DoC_102)

As manufacturer
PR electronics A/S, Lerbakken 10, DK-8410 Rønde
 hereby declares that the following products:
Type: 5114
Name: Programmable transmitter
From serial no.: 161966001

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

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 50581 : 2012

Notified body 0344
DEKRA Certification B.V.
Meander 1051, 6825 MJ Arnhem
P.O. Box 5185, 6802 ED Arnhem
The Netherlands

Stig Lindemann

Stig Lindemann, CTO
 Manufacturer's signature

Rønde, 16 March 2018

EU DECLARATION OF CONFORMITY



(5115DoC_102)

As manufacturer
PR electronics A/S, Lerbakken 10, DK-8410 Rønde
 hereby declares that the following products:
Type: 5115
Name: Signal calculator
From serial no.: 161966001

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

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 50581 : 2012

Notified body 0344
DEKRA Certification B.V.
Meander 1051, 6825 MJ Arnhem
P.O. Box 5185, 6802 ED Arnhem
The Netherlands

Stig Lindemann

Stig Lindemann, CTO
 Manufacturer's signature

Rønde, 16 March 2018

EU DECLARATION OF CONFORMITY



(5116DoC_103)

As manufacturer
PR electronics A/S, Lerbakken 10, DK-8410 Rønde
 hereby declares that the following products:
Type: 5116
Name: Programmable transmitter
From serial no.: 181570001

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

The ATEX Directive 2014/34/EU and later amendments
EN 60079-0 : 2012 + A11 : 2013 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 50581 : 2012

Notified body 0344
DEKRA Certification B.V.
Meander 1051, 6825 MJ Arnhem
P.O. Box 5185, 6802 ED Arnhem
The Netherlands

Stig Lindemann

Stig Lindemann, CTO
 Manufacturer's signature

Rønde, 13 June 2018

EU DECLARATION OF CONFORMITY



(5131DoC_102)

As manufacturer
PR electronics A/S, Lerbakken 10, DK-8410 Rønde
 hereby declares that the following products:
Type: 5131
Name: 2-wire programmable transmitter
From serial no.: 161966001

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

The ATEX Directive 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 99ATEX124572 (5131B)

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 50581 : 2012

Notified body 0344
DEKRA Certification B.V.
Meander 1051, 6825 MJ Arnhem
P.O. Box 5185, 6802 ED Arnhem
The Netherlands

Stig Lindemann

Stig Lindemann, CTO
 Manufacturer's signature

Rønde, 16 March 2018

ATEX Installation drawing 5116QA01-V2R0



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 04ATEX 1316X

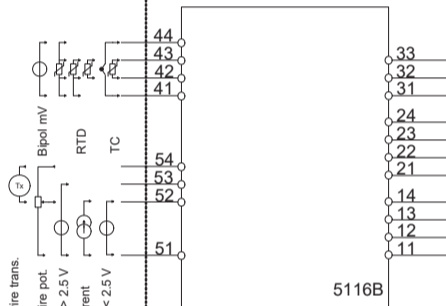
Marking

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

Standards EN 60079-0 : 2012, A11:2013, EN 60079-11 : 2012

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

Non Hazardous Area
 $-20 \leq T_a \leq 60^\circ\text{C}$



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

U_m: 253 VAC

Terminal	U _o	I _o	P _o	L _o			C _o		
				IIC	IIB	IIA	IIC	IIB	IIA
41, 42, 44, 43	7.5 V	2.2 mA	4.2 mW	1 H	1 H	1 H	6 μF	6 μF	6 μF
51, 52, 53	7.5 V	2.2 mA	4.2 mW	1 H	1 H	1 H	6 μF	6 μF	6 μF
51, 52, 53, 54	28 V	93 mA	650 mW	3 mH	16 mH	31 mH	75 nF	645 nF	2 μF

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 mADC
 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 * U² * 1.0085^U

Installation notes

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

The communications interface may only be connected temporarily, 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.

FM CONTROL DRAWING NO. 5116QF01

Hazardous (Classified) Location

Unclassified Location

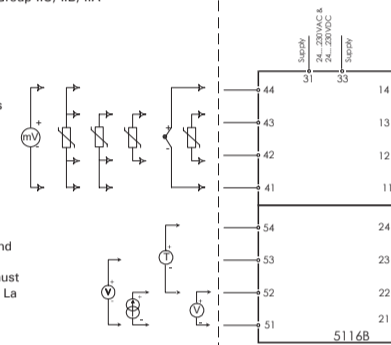
Class I, Division 1, Group A,B,C,D
 Class II, Division 1 Group E, F, G
 Class III, Division 1
 Class I, Zone 0 and 1, Group IIC, IIB, IIA
 Class II, Zone 20 and 21

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
 C_a ≥ C_{cable} + C_i
 L_a ≥ L_{cable} + L_i

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



Terminal	Voc (V)	Isc (mA)	Po (mW)	L _a (mH)			C _a (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

Installation notes:

- 1) The maximum non hazardous location voltage is 250Vac/dc.
- 2) The installation shall be in accordance with the National Electrical Code NFPA 70, Articles 504 and 505.
- 3) 5116B is galvanic isolated and does not require grounding
- 4) For Installation in Div 2 or Zone 2 the 5116B must be installed in an enclosure according to ANSI/ISA S82.
- 5) Install in Pollution degree 2 or better
- 6) Use 60 / 75 °C Copper Conductors with Wire Size AWG: (26 – 14).
- 7) Warning: Substitution of components may impair intrinsic safety.

Rev. AA 2005-07-20