



DK Kina RoHS  
 UK China RoHS  
 FR RoHS chinois  
 DE China-RoHS

Part Name	Hazardous Substances					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr (VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)
Printed circuit board	X	0	0	0	0	0

This table is prepared in accordance with the provisions of SJ/T 11364  
 O: Indicates that said hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement of GB/T 26572.  
 X: Indicates that said hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement of GB/T 26572.

The product's Environmentally Friendly Use Period (EFUP) is 50 years

DK Sideskilt  
 UK Side label  
 FR Etiquette  
 DE Typenschild

DK Benforbindelser.  
UK Pin connections.  
FR Raccordement des bornes.  
DE Klemmenanschluss.

DK Godkendelser.  
UK Approvals.  
FR Homologations.  
DE Zulassungen.

DK Topskilt  
 UK Top label  
 FR Etiquette  
 DE Topschild

DK Typnr.  
 FR No. de type.  
UK Type no.  
 DE Typennr.

DK Produktionsår fremgår af de to første cifre i serienummeret.  
UK Year of manufacture can be taken from the first two digits in the serial number.  
FR L'année de production est définie grace aux deux premiers chiffres du numéro de série.  
DE Die ersten beiden Ziffern der Seriennummer geben das Produktionsjahr an.

### UL CONTROL DRAWING 5104QU01

**Hazardous (Classified) Location**  
Class I, Division 1, Group A,B,C,D  
Class I, Zone 0 and 1, Group IIC  
Class II, Division 1 Group E, F, G

**Nonhazardous Associated apparatus Galvanically Isolated**

Intrinsically safe apparatus entity parameters:  
 $V_{max. (U_i)} \geq V_t (U_o)$   
 $I_{max. (I_i)} \geq I_t (I_o)$   
 $P_i \geq P_o$   
 $C_a \geq C_{cable} + C_i$   
 $L_a \geq L_{cable} + L_i$

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

CH1	Terminals 41 to 44
CH2	Terminals 51 to 54
$V_t (U_o)$	28 V
$I_t (I_o)$	93 mA
$P_o$	0.65 W
	IIC / grp. A,B   IIB / grp. C   IIA / grp.D
$C_a (Co)$	0.052 $\mu$ F   0.44 $\mu$ F   1.45 $\mu$ F
$L_a (Lo)$	2.4 mH   12 mH   20 mH

### UL CONTROL DRAWING 5105QU01

**Hazardous (Classified) Location**  
Class I, Division 1, Group A,B,C,D  
Class I, Zone 0 and 1, Group IIC  
Class II, Division 1 Group E, F, G

**Nonhazardous Associated apparatus Galvanically isolated**

Intrinsically safe apparatus entity parameters:  
 $V_{max. (U_i)} \geq V_{oc} (U_o)$   
 $I_{max. (I_i)} \geq I_{sc} (I_o)$   
 $P_i \geq P_o$   
 $C_a \geq C_{cable} + C_i$   
 $L_a \geq L_{cable} + L_i$

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

CH1	Terminals 41 to 43
CH2	Terminals 51 to 53
$V_{oc} (U_o)$	28 V
$I_{sc} (I_o)$	93 mA
$P_o$	0.65 W
	IIC / grp. A,B   IIB / grp. C   IIA / grp.D
$C_a (Co)$	0.052 $\mu$ F   0.44 $\mu$ F   1.45 $\mu$ F
$L_a (Lo)$	2.4 mH   12 mH   20 mH

### UL CONTROL DRAWING 5106QU01

**Hazardous (Classified) Location**  
Class I, Division 1, Group A,B,C,D  
Class I, Zone 0 and 1, Group IIC  
Class II, Division 1 Group E, F, G

**Nonhazardous Associated apparatus Galvanically Isolated**

Intrinsically safe apparatus entity parameters:  
 $V_{max. (U_i)} \geq V_t (U_o)$   
 $I_{max. (I_i)} \geq I_t (I_o)$   
 $P_i \geq P_o$   
 $C_a \geq C_{cable} + C_i$   
 $L_a \geq L_{cable} + L_i$

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

CH1	Terminals 44 to 41,42	Terminals 41 to 42
CH2	Terminals 54 to 51,52	Terminals 51 to 52
$V_t (U_o)$	28 V	10V
$I_t (I_o)$	93 mA	2 mA
$P_o$	0.65 W	5 mW
	IIC / grp. A, B   IIB / grp. C   IIA / grp.D	IIC / grp. A, B
$C_a (Co)$	0.06 $\mu$ F   0.52 $\mu$ F   1.72 $\mu$ F   3.0 $\mu$ F	
$L_a (Lo)$	2.4 mH   12 mH   20 mH   1.0 H	

- Installation notes:**
- The maximum nonhazardous location voltage is 250VAC/DC.
  - The installation shall be in accordance with the National Electrical Code NFPA 70, Articles 504 and 505.
  - The terminals of the two individual channels shall not be interconnected in any way.
  - Install in Pollution degree 2 or better
  - Use 60 / 75 °C copper conductors with wire size AWG: (26 - 14).
  - Warning: Substitution of components may impair intrinsic safety.
- Rev. AA 2003-02-12

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**EU DECLARATION OF CONFORMITY** (5104DoC\_102)

As manufacturer **PR electronics A/S, Lerbakken 10, DK-8410 Rønde** hereby declares that the following products:

**Type:** 5104  
**Name:** Repeater / Power Supply  
**From serial no.:** 161885188

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 99ATEX126013 (5104B)

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

Rønde, 6 December 2017

*Stig Lindemann*  
Stig Lindemann, CTO  
Manufacturer's signature

**EU DECLARATION OF CONFORMITY** (5105DoC\_102)

As manufacturer **PR electronics A/S, Lerbakken 10, DK-8410 Rønde** hereby declares that the following products:

**Type:** 5105  
**Name:** Ex-isolated driver  
**From serial no.:** 161843007

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 99ATEX126014

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

Rønde, 11 December 2017

*Stig Lindemann*  
Stig Lindemann, CTO  
Manufacturer's signature

**EU DECLARATION OF CONFORMITY** (5106DoC\_102)

As manufacturer **PR electronics A/S, Lerbakken 10, DK-8410 Rønde** hereby declares that the following products:

**Type:** 5106  
**Name:** HART transparent repeater  
**From serial no.:** 161629068

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 00ATEX127483 (5106B)

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.  
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P.O. Box 5185, 6802 ED Arnhem  
The Netherlands

Rønde, 11 December 2017

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