

Certificate

1 EC-Type Examination Certificate

2 Equipment and protective systems intended for use in potentially explosive atmospheres – Directive 94/9/EC

3 EC-Type Examination Certificate Number: **KIWA 15ATEX0032 X Issue: 2**

4 Equipment: **Multi-rotation Valve Position Indicator Series VPI-S and VPI-A**

5 Manufacturer: **Netherlocks Safety Systems B.V.**

6 Address: **J. Keplerweg 14, 2408 AC Alphen aan den Rijn
The Netherlands**

7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Kiwa Nederland B.V., notified body number 0620 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential ATEX Assessment Report No. 150600576.

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

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

10 If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use, specified in the schedule to this certificate.

11 This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

12 The marking of the equipment shall include the following:



**II 2 G Ex ia IIC T6/T4 Gb
II 2 D Ex ia IIIC T80 °C/T130 °C Db**

Kiwa Nederland B.V.



Pieter van Breugel
Certification Officer

Issue date:

9 March 2016

First issue:

25 September 2015

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15.1 Description

The Multi-rotation Valve Position Indicators, series VPI, are devices that are intended to be mounted on multi rotation valves to indicate the valve position.

The Valve Position Indicator is provided with contacts or with electronic proximity switches for feedback of the valve position and can be provided with LED indicator lights for local indication of the valve position.

The VPI product range consists of the model series

- VPI-S with stainless steel 316 enclosure;
- VPI-A with aluminum A360 enclosure.

Type designation:

VPI -	Enclosure	Size	Sensor type	Configuration	LED option
VPI-	S - = S Series (Stainless Steel 316) A - = A Series (Aluminum A360)	S = small L = large	1 = P+F SC 2 = P+F NJ-SN 3 = Dry contact switch 4 = Topworx GO switch 5 = Euroswitch FS 6 = P+F NJ5-18GK-N-150 7 = P+F NJ4-12GK-SN 8 = P+F NJ2-11-N-G 9 = P+F SJ3,5-N 10 = P+F NJ2-V3-N 11 = P+F NJ4-12GK-N 12 = P+F NCB2-V3-N0 13 = P+F SJ3,5-SN	O = Open C = Closed D = Dual	N = without LEDs L = with LEDs

The allowed ambient temperature range for the VPI is depending on the sensor type designation, temperature class and type of intrinsically safe circuits, as listed in the following table:

Type designation	Type	Ex marking gas	Ex marking dust	Ambient temperature
VPI-x-x1xN	1	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +70 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +100 °C
	2	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +66 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +100 °C
	3	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +45 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +89 °C
	4	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +30 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +74 °C
VPI-x-x2xN	1	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +70 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +100 °C
	2	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +69 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +100 °C
	3	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +51 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +80 °C
	4	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +39 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +61 °C

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Type designation	Type	Ex marking gas	Ex marking dust	Ambient temperature
VPI-x-x3xN	-	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-40 °C to +80 °C
VPI-x-x4xN	-	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-40 °C to +50 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-40 °C to +100 °C
VPI-x-x5xN	-	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-60 °C to +80 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-60 °C to +100 °C
VPI-x-x6xN	1	II 2G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-40 °C to +70 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-40 °C to +100 °C
	2	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-40 °C to +69 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-40 °C to +100 °C
	3	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-40 °C to +51 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-40 °C to +100 °C
	4	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-40 °C to +39 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-40 °C to +89 °C
VPI-x-x7xN	1	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-50 °C to +70 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-50 °C to +100 °C
	2	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +69 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +100 °C
	3	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +51 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +80 °C
	4	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +39 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +61 °C
VPI-x-x8xN	1	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +70 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +100 °C
	2	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +73 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +100 °C
	3	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +62 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +81 °C
	4	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +54 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +63 °C
VPI-x-x9xN	1	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +70 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +100 °C
	2	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +66 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +100 °C
	3	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +45 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +89 °C
	4	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +30 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +74 °C
VPI-x-x10xN	1	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +70 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +100 °C
	2	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +66 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +100 °C
	3	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +45 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +89 °C
	4	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +30 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +74 °C

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VPI-x-x11xN	1	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +70 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +100 °C
	2	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +69 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +100 °C
	3	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +51 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +80 °C
	4	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +39 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +61 °C
VPI-x-x12xN	1	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +70 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +100 °C
	2	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +66 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +100 °C
	3	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +45 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +89 °C
	4	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +30 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +74 °C
VPI-x-x13xN	1	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-50 °C to +70 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-50 °C to +100 °C
	2	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +66 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +100 °C
	3	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +45 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +89 °C
	4	II 2 G Ex ia IIC T6 Gb	II 2 D Ex ia IIIC T80 °C Db	-25 °C to +30 °C
		II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +74 °C
VPI-x-x1xL VPI-x-x2xL	1-4	II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +50 °C
VPI-x-x3xL VPI-x-x4xL VPI-x-x5xL VPI-x-x6xL VPI-x-x7xL	1-4	II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-40 °C to +50 °C
VPI-x-x8xL VPI-x-x9xL VPI-x-x10xL VPI-x-x11xL VPI-x-x12xL	1-4	II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-25 °C to +50 °C
VPI-x-x13xL	1-4	II 2 G Ex ia IIC T4 Gb	II 2 D Ex ia IIIC T130 °C Db	-40 °C to +50 °C

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15.2 Electrical data

The electrical data of the intrinsically safe circuits depend on the configuration of the Valve Position Indicator and the applied switches and LEDs, as listed below.

All circuits are in type of protection intrinsic safety Ex ia IIC and Ex ia IIIC, only for connection to certified intrinsically safe circuits.

Model VPI-x-x1xx, switches SC3,5-G-N0, Type 1:
 $U_i = 16 \text{ V}$; $I_i = 25 \text{ mA}$; $P_i = 34 \text{ mW}$; $C_i = 150 \text{ nF}$; $L_i = 150 \text{ }\mu\text{H}$.

Model VPI-x-x1xx, switches SC3,5-G-N0, Type 2:
 $U_i = 16 \text{ V}$; $I_i = 25 \text{ mA}$; $P_i = 64 \text{ mW}$; $C_i = 150 \text{ nF}$; $L_i = 150 \text{ }\mu\text{H}$.

Model VPI-x-x1xx, switches SC3,5-G-N0, Type 3:
 $U_i = 16 \text{ V}$; $I_i = 52 \text{ mA}$; $P_i = 169 \text{ mW}$; $C_i = 150 \text{ nF}$; $L_i = 150 \text{ }\mu\text{H}$.

Model VPI-x-x1xx, switches SC3,5-G-N0, Type 4:
 $U_i = 16 \text{ V}$; $I_i = 76 \text{ mA}$; $P_i = 242 \text{ mW}$; $C_i = 150 \text{ nF}$; $L_i = 150 \text{ }\mu\text{H}$.

Model VPI-x-x2xx, switches NJ3-18GK-S1N, Type 1:
 $U_i = 16 \text{ V}$; $I_i = 25 \text{ mA}$; $P_i = 34 \text{ mW}$; $C_i = 70 \text{ nF}$; $L_i = 200 \text{ }\mu\text{H}$.

Model VPI-x-x2xx, switches NJ3-18GK-S1N, Type 2:
 $U_i = 16 \text{ V}$; $I_i = 25 \text{ mA}$; $P_i = 64 \text{ mW}$; $C_i = 70 \text{ nF}$; $L_i = 200 \text{ }\mu\text{H}$.

Model VPI-x-x2xx, switches NJ3-18GK-S1N, Type 3:
 $U_i = 16 \text{ V}$; $I_i = 52 \text{ mA}$; $P_i = 169 \text{ mW}$; $C_i = 70 \text{ nF}$; $L_i = 200 \text{ }\mu\text{H}$.

Model VPI-x-x2xx, switches NJ3-18GK-S1N, Type 4:
 $U_i = 16 \text{ V}$; $I_i = 76 \text{ mA}$; $P_i = 242 \text{ mW}$; $C_i = 70 \text{ nF}$; $L_i = 200 \text{ }\mu\text{H}$.

Model VPI-x-x3xx, switches D2VW-01L2A-1M:
 $U_i = 30 \text{ V}$; $I_i = 100 \text{ mA}$; $P_i = 1,3 \text{ W}$; $C_i = 0 \text{ nF}$; $L_i = 0 \text{ }\mu\text{H}$.

Model VPI-x-x4xx, switches 74-1352H-S2:
 $U_i = 30 \text{ V}$; $I_i = 250 \text{ mA}$; $P_i = 0,55 \text{ W}$; $C_i = 33 \text{ nF}$; $L_i = 200 \text{ }\mu\text{H}$.

Model VPI-x-x5xx, switches FS-A222:
 $U_i = 30 \text{ V}$; $I_i = 250 \text{ mA}$; $P_i = 1,3 \text{ W}$; $C_i = 0 \text{ nF}$; $L_i = 0 \text{ }\mu\text{H}$.

Model VPI-x-x6xx, switches NJ5-18GK-N-150, Type 1:
 $U_i = 16 \text{ V}$; $I_i = 25 \text{ mA}$; $P_i = 34 \text{ mW}$; $C_i = 70 \text{ nF}$; $L_i = 50 \text{ }\mu\text{H}$.

Model VPI-x-x6xx, switches NJ5-18GK-N-150, Type 2:
 $U_i = 16 \text{ V}$; $I_i = 25 \text{ mA}$; $P_i = 64 \text{ mW}$; $C_i = 70 \text{ nF}$; $L_i = 50 \text{ }\mu\text{H}$.

Model VPI-x-x6xx, switches NJ5-18GK-N-150, Type 3:
 $U_i = 16 \text{ V}$; $I_i = 52 \text{ mA}$; $P_i = 169 \text{ mW}$; $C_i = 70 \text{ nF}$; $L_i = 50 \text{ }\mu\text{H}$.

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Model VPI-x-x6xx, switches NJ5-18GK-N-150, Type 4:

$U_i = 16 \text{ V}$; $I_i = 76 \text{ mA}$; $P_i = 242 \text{ mW}$; $C_i = 70 \text{ nF}$; $L_i = 50 \text{ }\mu\text{H}$.

Model VPI-x-x7xx, switches NJ4-12GK-SN, Type 1:

$U_i = 16 \text{ V}$; $I_i = 25 \text{ mA}$; $P_i = 34 \text{ mW}$; $C_i = 70 \text{ nF}$; $L_i = 150 \text{ }\mu\text{H}$.

Model VPI-x-x7xx, switches NJ4-12GK-SN, Type 2:

$U_i = 16 \text{ V}$; $I_i = 25 \text{ mA}$; $P_i = 64 \text{ mW}$; $C_i = 70 \text{ nF}$; $L_i = 150 \text{ }\mu\text{H}$.

Model VPI-x-x7xx, switches NJ4-12GK-SN, Type 3:

$U_i = 16 \text{ V}$; $I_i = 52 \text{ mA}$; $P_i = 169 \text{ mW}$; $C_i = 70 \text{ nF}$; $L_i = 150 \text{ }\mu\text{H}$.

Model VPI-x-x7xx, switches NJ4-12GK-SN, Type 4:

$U_i = 16 \text{ V}$; $I_i = 76 \text{ mA}$; $P_i = 242 \text{ mW}$; $C_i = 70 \text{ nF}$; $L_i = 150 \text{ }\mu\text{H}$.

Model VPI-x-x8xx, switches NJ2-11-N-G, Type 1:

$U_i = 16 \text{ V}$; $I_i = 25 \text{ mA}$; $P_i = 34 \text{ mW}$; $C_i = 30 \text{ nF}$; $L_i = 50 \text{ }\mu\text{H}$.

Model VPI-x-x8xx, switches NJ2-11-N-G, Type 2:

$U_i = 16 \text{ V}$; $I_i = 25 \text{ mA}$; $P_i = 64 \text{ mW}$; $C_i = 30 \text{ nF}$; $L_i = 50 \text{ }\mu\text{H}$.

Model VPI-x-x8xx, switches NJ2-11-N-G, Type 3:

$U_i = 16 \text{ V}$; $I_i = 52 \text{ mA}$; $P_i = 169 \text{ mW}$; $C_i = 30 \text{ nF}$; $L_i = 50 \text{ }\mu\text{H}$.

Model VPI-x-x8xx, switches NJ2-11-N-G, Type 4:

$U_i = 16 \text{ V}$; $I_i = 76 \text{ mA}$; $P_i = 242 \text{ mW}$; $C_i = 30 \text{ nF}$; $L_i = 50 \text{ }\mu\text{H}$.

Model VPI-x-x9xx, switches SJ3,5-N, Type 1:

$U_i = 16 \text{ V}$; $I_i = 25 \text{ mA}$; $P_i = 34 \text{ mW}$; $C_i = 50 \text{ nF}$; $L_i = 250 \text{ }\mu\text{H}$.

Model VPI-x-x9xx, switches SJ3,5-N, Type 2:

$U_i = 16 \text{ V}$; $I_i = 25 \text{ mA}$; $P_i = 64 \text{ mW}$; $C_i = 50 \text{ nF}$; $L_i = 250 \text{ }\mu\text{H}$.

Model VPI-x-x9xx, switches SJ3,5-N, Type 3:

$U_i = 16 \text{ V}$; $I_i = 52 \text{ mA}$; $P_i = 169 \text{ mW}$; $C_i = 50 \text{ nF}$; $L_i = 250 \text{ }\mu\text{H}$.

Model VPI-x-x9xx, switches SJ3,5-N, Type 4:

$U_i = 16 \text{ V}$; $I_i = 76 \text{ mA}$; $P_i = 242 \text{ mW}$; $C_i = 50 \text{ nF}$; $L_i = 250 \text{ }\mu\text{H}$.

Model VPI-x-x10xx, switches NJ2-V3-N, Type 1:

$U_i = 16 \text{ V}$; $I_i = 25 \text{ mA}$; $P_i = 34 \text{ mW}$; $C_i = 40 \text{ nF}$; $L_i = 50 \text{ }\mu\text{H}$.

Model VPI-x-x10xx, switches NJ2-V3-N, Type 2:

$U_i = 16 \text{ V}$; $I_i = 25 \text{ mA}$; $P_i = 64 \text{ mW}$; $C_i = 40 \text{ nF}$; $L_i = 50 \text{ }\mu\text{H}$.

Model VPI-x-x10xx, switches NJ2-V3-N, Type 3:

$U_i = 16 \text{ V}$; $I_i = 52 \text{ mA}$; $P_i = 169 \text{ mW}$; $C_i = 40 \text{ nF}$; $L_i = 50 \text{ }\mu\text{H}$.

Model VPI-x-x10xx, switches NJ2-V3-N, Type 4:

$U_i = 16 \text{ V}$; $I_i = 76 \text{ mA}$; $P_i = 242 \text{ mW}$; $C_i = 40 \text{ nF}$; $L_i = 50 \text{ }\mu\text{H}$.

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Model VPI-x-x11xx, switches NJ4-12GK-N, Type 1:
 $U_i = 16 \text{ V}$; $I_i = 25 \text{ mA}$; $P_i = 34 \text{ mW}$; $C_i = 45 \text{ nF}$; $L_i = 50 \text{ }\mu\text{H}$.

Model VPI-x-x11xx, switches NJ4-12GK-N, Type 2:
 $U_i = 16 \text{ V}$; $I_i = 25 \text{ mA}$; $P_i = 64 \text{ mW}$; $C_i = 45 \text{ nF}$; $L_i = 50 \text{ }\mu\text{H}$.

Model VPI-x-x11xx, switches NJ4-12GK-N, Type 3:
 $U_i = 16 \text{ V}$; $I_i = 52 \text{ mA}$; $P_i = 169 \text{ mW}$; $C_i = 45 \text{ nF}$; $L_i = 50 \text{ }\mu\text{H}$.

Model VPI-x-x11xx, switches NJ4-12GK-N, Type 4:
 $U_i = 16 \text{ V}$; $I_i = 76 \text{ mA}$; $P_i = 242 \text{ mW}$; $C_i = 45 \text{ nF}$; $L_i = 50 \text{ }\mu\text{H}$.

Model VPI-x-x12xx, switches NCB2-V3-N0, Type 1:
 $U_i = 16 \text{ V}$; $I_i = 25 \text{ mA}$; $P_i = 34 \text{ mW}$; $C_i = 100 \text{ nF}$; $L_i = 100 \text{ }\mu\text{H}$.

Model VPI-x-x12xx, switches NCB2-V3-N0, Type 2:
 $U_i = 16 \text{ V}$; $I_i = 25 \text{ mA}$; $P_i = 64 \text{ mW}$; $C_i = 100 \text{ nF}$; $L_i = 100 \text{ }\mu\text{H}$.

Model VPI-x-x12xx, switches NCB2-V3-N0, Type 3:
 $U_i = 16 \text{ V}$; $I_i = 52 \text{ mA}$; $P_i = 169 \text{ mW}$; $C_i = 100 \text{ nF}$; $L_i = 100 \text{ }\mu\text{H}$.

Model VPI-x-x12xx, switches NCB2-V3-N0, Type 4:
 $U_i = 16 \text{ V}$; $I_i = 76 \text{ mA}$; $P_i = 242 \text{ mW}$; $C_i = 100 \text{ nF}$; $L_i = 100 \text{ }\mu\text{H}$.

Model VPI-x-x13xx, switches SJ3,5-SN, Type 1:
 $U_i = 16 \text{ V}$; $I_i = 25 \text{ mA}$; $P_i = 34 \text{ mW}$; $C_i = 30 \text{ nF}$; $L_i = 100 \text{ }\mu\text{H}$.

Model VPI-x-x13xx, switches SJ3,5-SN, Type 2:
 $U_i = 16 \text{ V}$; $I_i = 25 \text{ mA}$; $P_i = 64 \text{ mW}$; $C_i = 30 \text{ nF}$; $L_i = 100 \text{ }\mu\text{H}$.

Model VPI-x-x13xx, switches SJ3,5-SN, Type 3:
 $U_i = 16 \text{ V}$; $I_i = 52 \text{ mA}$; $P_i = 169 \text{ mW}$; $C_i = 30 \text{ nF}$; $L_i = 100 \text{ }\mu\text{H}$.

Model VPI-x-x13xx, switches SJ3,5-SN, Type 4:
 $U_i = 16 \text{ V}$; $I_i = 76 \text{ mA}$; $P_i = 242 \text{ mW}$; $C_i = 30 \text{ nF}$; $L_i = 100 \text{ }\mu\text{H}$.

LED indicators (all models if applicable):
 $U_i = 30 \text{ V}$; $I_i = 1 \text{ A}$; $P_i = 2,8 \text{ W}$; $C_i = 0 \text{ nF}$; $L_i = 0 \text{ }\mu\text{H}$.

15.3 Instructions

The instructions provided with the equipment shall be followed in detail to assure safe operation.

16 ATEX Assessment Report

No. 150600576.

13 **SCHEDULE**

14 **to EC-Type Examination Certificate KIWA 15ATEX0032 X Issue No. 2**

17 **Specific conditions of use**

- For temperature data, refer to section 15.1
- Voltage and/or current addition shall be prevented by separation of all individual intrinsically safe circuits in accordance with the installation codes of practice.

18 **Essential Health and Safety Requirements**

All relevant Essential Health and Safety Requirements are covered by the standards listed at section 9.

19 **Test documentation**

As listed in ATEX Assessment Report No. 150600576.