

[1]

TYPE EXAMINATION CERTIFICATE

[2]

**Equipment or Protective System intended for use
in Potentially Explosive Atmospheres
Directive 94/9/EC**

[3]

Type Examination Certificate Number: **DEMKO 14 ATEX 1284X Rev. 0**

[4]

Equipment: **Safety Relay Modules, Type PSR-PC50-1NO-1DO-24VDC-SC and
Type PSR-PC50-1NO-1DO-24VDC-SP**

[5]

Manufacturer: **Phoenix Contact GmbH & CO KG**

[6]

Address: **Flachsmarkstrasse 8, 32825 Blomberg, Germany**

[7]

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

[8]

UL International Demko A/S certifies that this equipment has been found to comply with the Essential Health and Safety Requirements that relate to the design of **Category 3** equipment, which is intended for use in potentially explosive atmospheres. These Essential Health and Safety Requirements are given in Annex II to the European Union Directive 94/9/EC of 23 March 1994.

The examination and test results are recorded in confidential report no. **4786158126**

[9]

Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule of this certificate, has been assessed by reference to Standards:

EN 60079-0:2012+A11:2013

EN 60079-15:2010

[10]

If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

[11]

This Type examination certificate relates only to the design of the specified equipment, and not to specific items of equipment subsequently manufactured.

[12]

The marking of the equipment or protective system shall include the following:

II 3 G Ex nA nC IIC T4 Gc

Certification Manager

Jan-Erik Storgaard

Certification Body

This is to certify that the sample(s) of the Equipment described herein ("Certified Equipment") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Equipment Certification Program Requirements. This certificate and test results obtained apply only to the equipment sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured equipment. UL has not established Follow-Up Service or other surveillance of the equipment. The Manufacturer is solely and fully responsible for conformity of all equipment to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Date of issue: 2014-10-08



UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark
Tel. +45 44 85 65 65, info.dk@ul.com, www.ul.com

[13]

[14]

Schedule
TYPE EXAMINATION CERTIFICATE No.
DEMKO 14 ATEX 1248X Rev. 0
Report: 4786158126

[15]

Description of Equipment:

The Relay Modules Type PSR- PC50 Series are used for galvanic separation and performance adjustment of signals in the process industry / process engineering. It couples digital output signals of e.g. fail-safe control systems to the peripheral and guarantees safe switching in the event of a fault using relay contacts.

The PSR- PC50 Series can sense a loss of load power supply with an error message on the "ERROR" LED. For this sensing an additional diagnostic control voltage must apply which turns the „DIAG-ON" LED on. This optical radiation output of the apparatus with respect to explosion protection, according to Annex II clause 1.3.1 of the Directive 94/9/EC is covered in this certificate.

Nomenclature for type PSR- PC50 Series:

Type PSR-PC50-1NO-1DO-24VDC-SC and

Type PSR-PC50-1NO-1DO-24VDC-SP

PSR- PC50- 1NO- 1DO - 24VDC -SC
 I II III IV V VI

- I. PSR -
- II. PC50 -
- III. Output Configuration Relay Contacts
1NO – One normally open contact
- IV. Output Configuration Relay Contacts
1DO – One Digital Output
- V. Control Voltage
24Vdc – 24Vdc
- VI. Terminal Configuration
SC – Screw Terminal
SP – Cage Clamp Terminal

Temperature range

The ambient temperature range is -20 °C to +60 °C (with limitations described below).

Electrical data

Input Power Supply :

Terminal X3 Pin: 3.3
 Terminal X2 Pin: 2.3
 U_{in} = 24 V d. c.,
 I_{in} = 100 mA

Relay Output :

Terminal X4 Pins: 4.1, 4.2
 Terminal X5, X6 Pins:5.1, 6.1
 Terminal X5 Pins: 5.2, 5.3
 Terminal X4, X6 Pins:4.3, 6.3

Relay Output	250 V a. c. / 24 V d. c. 5 A Resistive B300, R300	250 V a. c. / 24 V d. c. 0.5 A
Ambient Temperature	-20 °C to 40 °C	-20 °C to 60 °C

Terminal X3 Pin: 3.1
 Terminal X2 Pin: 2.1
 U_{in} = 0 V d. c.

Diagnostic Input:

Terminal X2 Pin: 2.2 U_H = + 24 V d. c.

Diagnostic Output:

Terminal X3 Pin: M1
 U_n = + 23 V d. c.; 0.1 A



[13]

Schedule

[14]

TYPE EXAMINATION CERTIFICATE No.**DEMKO 14 ATEX 1248X Rev. 0****Report: 4786158126**Installation instructions

The Relay Modules Type PSR- PC50 shall be assembled in accordance with the instructions given by the manufacturer. Please refer to Description and Operating Instructions.

Mounting instructions

Refer to "Instructions".

Routine tests

Routine Tests are not required.

[16]

Descriptive Documents

Project Report No.: 4786158126 (Hazardous Location Testing)

Drawings:

Description:	Drawing No.:	Rev. Level:	Date:
Trace Layout, 19p.	9065100	00	2013-12-18
Component Layout Assembly, 6p.	9065374	00	2014-01-08
Schematics, 6p.	9065374	00	2014-01-08
Laserbedruckung links, 1p. (Marking Label for Type PSR-PC50-1NO-1DO-24VDC-SC- Left side)	83148587	01	2014-01-24
Laserbedruckung rechts, 1p. (Marking Label for Type PSR-PC50-1NO-1DO-24VDC-SC-Right side)	83148588	02	2014-04-11
Laserbedruckung links, 1p. (Marking Label for Type PSR-PC50-1NO-1DO-24VDC-SP- Left side)	83157491	00	2014-05-23
Laserbedruckung rechts, 1p. (Marking Label for Type PSR-PC50-1NO-1DO-24VDC-SP-Right side)	83148588	02	2014-01-24
Montageplan (Construction Drawing)	83152360	00	2014-01-24
Bill of material	83156591	02	2014-06-06
Operating instruction	83148150	02	2014-09-19

[17]

Special conditions for safe use:

- The device must be used in no more than a pollution degree 2 environment as defined by EN/IEC 60664-1.
- The device should be installed in a housing (control or distributor box) that fulfils the requirements of EN 60079-15:2010 (IEC 60079-15:2010 4th Ed.) and at least IP54 (EN/IEC60529) degree of protection.
- The device shall be connected to supply circuits where the rated voltage cannot be exceeded by 140% caused by transient disturbances.

[18]

Essential Health and Safety Requirements

Met by compliance with the standards EN 60079-0:2012+A11:2013 and EN 60079-15:2010.

Additional information

The manufacturer shall inform the certification body concerning all modifications to the technical documentation.





SCATTERGOOD & JOHNSON LTD

ELECTRICAL ENGINEERING & FLUID CONTROL DISTRIBUTORS

Est.1899

At Scattergood & Johnson Ltd, we pride ourselves on being a technical distributor to specialist industries.

Working with a range of quality product suppliers across a number of specialist markets, we are not your average 'box shifter' - we are your technical and supply chain partner.

We fully support every product we sell - for free! Our internal team and external sales engineers can answer any product or application question, no matter the complexity.

Backing up this technical ability is a range of 50,000+ products available from stock for nationwide next day delivery (same day if required!), or you can collect what you need from any of our trade counters around the UK.

Select your specialist interest below to learn more about how we can help.



Online, In Branch and On the Road - Scattergood & Johnson Ltd, there when you need us.

www.scatts.co.uk