

# TYPE EXAMINATION CERTIFICATE



## Equipment or Protective System intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

- [3] Type Examination Certificate Number: **DEMKO 12 ATEX 1114875X Rev. 14**
- [4] Product: **Mark VIe Programmable Controller System**
- [5] Manufacturer: **GE Drives & Controls Inc.**
- [6] Address: **1501 Roanoke Boulevard, Salem, VA 24153 USA**
- [7] This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- [8] UL International Demko A/S certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014.
- The examination and test results are recorded in confidential report no. **4790038635.1.1.**
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
- EN IEC 60079-0:2018    EN IEC 60079-7: 2015 +A1:2018    EN 60079-11:2012    EN 60079-15:2010**
- except in respect of those requirements listed at item 18 of the Schedule.
- [10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.
- [11] This Type examination certificate relates only to the design of the specified product, and not to specific items of product subsequently manufactured.
- [12] The marking of the product shall include the following:

II 3 G    Ex nA [ic] IIC T4 Gc or II 3 G    Ex ic nA IIC T4 Gc or  
 II 3 G    Ex ic nA [ic] IIC T4 Gc or II 3 G    Ex nA IIC T4 Gc  
 II 3 G    Ex ec [ic] IIC T4 Gc or II 3 G    Ex ic ec IIC T4 Gc or  
 II 3 G    Ex ic ec [ic] IIC T4 Gc or II 3 G    Ex ec IIC T4 Gc

**Certification Manager**  
Jan-Erik Storgaard

This is to certify that the sample(s) of the Product described herein ("Certified Product") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Product Certification Program Requirements. This certificate and test results obtained apply only to the product 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 product. UL has not established Follow-Up Service or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all product 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:** 2012-04-27

**Re-issued:** 2021-10-25

**Certification Body**

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[13]

[14]

## Schedule TYPE EXAMINATION CERTIFICATE No. DEMKO 12 ATEX 1114875X Rev. 14

[15]

Description of Product:

The Mark VIe control system is an open type microprocessor-based system designed for complete integrated control, protection and monitoring of generator and mechanical drive applications for gas and steam turbines and other industrial control applications. The devices are field mounted in a suitable electrical enclosure. The simple apparatus used are not identified by this certificate. Models included are as follows:

The Mark VIe Control Thermocouple Input Module, Cat No. IS220PTCCH1A is intended to be used with accessory terminal board Cat. Nos. IS200STTCH1A, IS200STTCH2A, IS200TBTCH1B, IS200TBTCH1C.

The Mark VIeS Control Thermocouple Input Module, Cat No. IS220YTCCS1A is intended to be used with accessory terminal board Cat. Nos. ISx0ySTTCS1A, ISx0ySTTCS2A, IS200TBTCS1B, ISx0yTBTCS1C.

The Mark VIe Control Industrial IONet Switch, Cat Nos. IS42, followed by 0 or 1, followed by ESW followed by A or B, followed by H, followed by 1, 2, 3, 4 or 5, followed by A.

The Mark VIe Control Discrete Output Module, Cat. No. IS220PDOAH1A is intended to be used with accessory terminal board Cat. Nos. IS200TRLYH2E, IS200TRLYH3E, IS200TRLYH1F, IS200TRLYH2F.

The Mark VIeS Control Discrete Output Module, Cat. No. IS220YDOAS1A is intended to be used with accessory terminal board Cat. Nos. IS200TRLYS1F, IS200TRLYS2F, IS400TRLYS1F, IS400TRLYS2F. Cat. No. IS220YDOAS1A with RoHS-compliant internal board IS400BPDOS1A is intended to be used with accessory terminal board Cat. Nos. ISx0yTRLYS1F, ISx0yTRLYS2F.

The Mark VIe Control Analog I/O Module, Cat. No. IS220PAICH1A is intended to be used with accessory terminal board Cat. Nos. IS200STAIH1A, IS200STAIH2A, IS200TBAIH1C.

The Mark VIeS Control Analog I/O Module, Cat. No. IS220YAICS1A is intended to be used with accessory terminal board Cat. Nos. ISx0ySTAIS1A, ISx0ySTAIS2A, ISx0yTBAIS1C. Cat. No. IS220YAICS1A with RoHS-compliant internal board Cat. No. IS400BPAIS1A with Cat. Nos. ISx0ySTAIS1A, ISx0ySTAIS2A, ISx0yTBAIS1C.

The Mark VIe Control Discrete Input Module, Cat. No. IS220PDIAH1A is intended to be used with accessory terminal board Cat. Nos. IS200STCIH1A, IS200STCIH2A, IS200STCIH8A, IS200TBCIH2C, IS200TBCIH4C.

The Mark VIeS Control Discrete Input Module, Cat. No. IS220YDIAS1A is intended to be used with accessory terminal board Cat. Nos. ISx0ySTCIS1A, ISx0ySTCIS2A, IS200TBCIS2C. Cat. No. IS220YDIAS1A with RoHS-compliant internal board IS400BPDIS1A is intended to be used with accessory terminal board Cat. Nos. ISx0ySTCIS1A, ISx0ySTCIS2A.

The Mark VIe Control Resistance Temperature Device (RTD) Input Module, Cat No. IS220PRTDH1A is intended to be used with accessory terminal board Cat. Nos. IS200TRTDH2D, IS200SRTDH1A, IS200SRTDH2A.

The Mark VIe Control Vibration Monitor Module, Cat. No. IS220PVIBH1A is intended to be used with accessory terminal board Cat. Nos. IS200TVBAH2A, IS200WNPSH1A.

The Mark VIeS Control Vibration Monitor Module, Cat. No. IS220YVIBS1A is intended to be used with accessory terminal board Cat. Nos. IS200TVBAS2A, IS200WNPSS1A.

The Mark VIe Control PCLA Core Analog Module, Cat. No. IS220PCLAH1A is intended to be used with accessory terminal board Cat. Nos. IS210SCLSH1A, IS200SCLTH1A

The Mark VIe Control PCNO CANopen® Master Gateway Module Cat. No. IS220PCNOH1A is intended to be used with accessory terminal board Cat. No. IS200SPIDG1A

The Mark VIe Control PDIO Discrete Input/Output Module, Cat. No. IS220PDIOH1A is intended to be used with accessory terminal board Cat. Nos. IS200TDBSH2A, IS200TDBTH2A

The Mark VIe Control PPRA Emergency Turbine Protection Module, Cat. No. IS220PPRAH1A is intended to be used with accessory terminal board Cat. Nos. IS200TREAHA1A, IS200WREAHA1A

The Mark VIeS Control PPRA Emergency Turbine Protection Module, Cat. No. IS220PPRAS1A is intended to be used with accessory terminal board Cat. Nos. IS200TREAS1A, IS200WREAS1A

The Mark VIe Control PPRF PROFIBUS® Master Gateway Module, Cat. No. IS220PPRFH1A is intended to be used with accessory terminal board Cat. No. IS200SPIDG1A

The Mark VIe Control PSCA Serial Communication Module, Cat. No. IS220PSCAH1A is intended to be used with accessory terminal board Cat. Nos. IS200SSCAH1A, IS200SSCAH2A

The Mark VIe Control PSCH Specialized Serial Communication Module, Cat. No. IS220PSCHH1A is intended to be used with accessory terminal board Cat. Nos. IS200SSCAH1A, IS200SSCAH2A

The Mark VIe Control PSVO Servo Control Module, Cat. No. IS220PSVOH1A is intended to be used with accessory terminal board Cat. Nos. IS200TSVCH2A, IS210WSVOH1A

Mark VIe Control Power Distribution Board, Cat. Nos. IS200JPDHG1A, IS210JPDHG1A, IS400JPDHG1A, IS410JPDHG1A, IS411JPDHG1A



[13]

[14]

## Schedule TYPE EXAMINATION CERTIFICATE No. DEMKO 12 ATEX 1114875X Rev. 14

The Mark VIe Control PPDA Power Distribution System Feedback Module, Cat. No. IS220PPDAH1A is intended to be used with accessory control power distribution board Cat. No. IS200JPDSG1A.

Mark VIe Controller, Cat Nos. IS220UCSAH1A, IS420UCSBH1A, IS420UCSBH3A, IS420UCSBH4A, IS421UCSBH1A, IS421UCSBH4A and IS420PPNGH1A.

Mark VIeS Safety Controller, Cat No. IS420UCSBS1A, IS421UCSBS1A.

The Mark VIe Control HART Enabled I/O Module, Cat No. IS220PHRAH1A is intended to be used with accessory terminal board Cat. Nos. IS200SHRAH1A, IS200SHRAH2A.

The Mark VIeS Control HART Enabled I/O Module, Cat No. IS220YHRAS1A is intended to be used with accessory terminal board Cat. Nos. IS200SHRAS1A, IS200SHRAS2A.

The Mark VIe Control PTUR Turbine Specific Primary Trip, Cat. No. IS220PTURH1A is intended to be used with accessory terminal board Cat. No. IS200TRPAH1A.

The Mark VIe Control YTUR Turbine Specific Primary Trip, Cat. No. IS220YTURS1A is intended to be used with accessory terminal board Cat. Nos. IS200TRPAS1A. Cat. No. IS220YTURS1A with RoHS-compliant internal boards IS400BTURS1A and IS400KTURS1A is intended to be used with accessory terminal board Cat. Nos. IS200TRPAS1A.

The Mark VIe Control PPRO Backup Turbine Protection, Cat. Nos. IS220PPROH1A is intended to be used with accessory terminal board Cat. Nos. IS200TREA1A, IS200TREA3A, IS200SPROH1A, IS200SPROH2A, IS200TPROH1C, IS200TPROH2C.

The Mark VIe Control YPRO Backup Turbine Protection, Cat. Nos. IS220YPROS1A is intended to be used with accessory terminal board Cat. Nos. IS200TREAS1A, IS200SPROS1A, IS200TPROS1C, IS200TPROS2C.

The Mark VIe Control PAMC Acoustic Monitoring Input Module, Cat. No. IS210BAPAH1A is intended to be used with accessory terminal board Cat. No. IS210SAMBH1A.

Model Nos.	Protection Method Employed
IS220PTCCH1A, IS220YTCCS1A, IS220PRTDH1A, IS220PDI AH1A, IS220YDIAS1A	Ex nA [ic] IIC T4 Gc
IS220PDOAH1A, IS220YDOAS1A, IS220PSVOH1A	Ex ic nA IIC T4 Gc
IS220PAICH1A, IS220YAICS1A, IS220PCLAH1A, IS220PDIOH1A, IS210BAPAH1A	Ex ic nA [ic] IIC T4 Gc
IS42, followed by 0 or 1, followed by ESW followed by A or B, followed by H, followed by 1, 2, 3, 4 or 5, followed by A, IS220PVIBH1A, IS220YVIBS1A, IS200JPDLG1A, IS420UCSBH1A, IS420UCSBH3A, IS420UCSBH4A, IS421UCSBH1A, IS421UCSBH4A, IS420UCSBS1A, IS421UCSBS1A, IS220PHRAH1A, IS220YHRAS1A, IS220PPDAH1A, IS220PPRAH1A, IS220PPRAS1A, IS220PPRFH1A, IS220PSCAH1A, IS220PSCHH1A, IS220PCNOH1A, IS210JPDHG1A, IS400JPDHG1A, IS410JPDHG1A, IS411JPDHG1A, IS220UCSAH1A, IS220PTURH1A, IS220YTURS1A, IS220PPROH1A, IS220YPROS1A, IS420PPNGH1A	Ex nA IIC T4 Gc

Model Nos.	Protection Method Employed
IS220PTCCH1A, IS220YTCCS1A, IS220PRTDH1A, IS220PDI AH1A, IS220YDIAS1A	Ex ec [ic] IIC T4 Gc
IS220PDOAH1A, IS220YDOAS1A, IS220PSVOH1A	Ex ic ec IIC T4 Gc
IS220PAICH1A, IS220YAICS1A, IS220PCLAH1A, IS220PDIOH1A, IS210BAPAH1A	Ex ic ec [ic] IIC T4 Gc
IS42, followed by 0 or 1, followed by ESW followed by A or B, followed by H, followed by 1, 2, 3, 4 or 5, followed by A, IS220PVIBH1A, IS220YVIBS1A, IS200JPDLG1A, IS420UCSBH1A, IS420UCSBH3A, IS420UCSBH4A, IS421UCSBH1A, IS421UCSBH4A, IS420UCSBS1A, IS421UCSBS1A, IS220PHRAH1A, IS220YHRAS1A, IS220PPDAH1A, IS220PPRAH1A, IS220PPRAS1A, IS220PPRFH1A, IS220PSCAH1A, IS220PSCHH1A, IS220PCNOH1A, IS210JPDHG1A, IS400JPDHG1A, IS410JPDHG1A, IS411JPDHG1A, IS220UCSAH1A, IS220PTURH1A, IS220YTURS1A, IS220PPROH1A, IS220YPROS1A, IS420PPNGH1A	Ex ec IIC T4 Gc

Note : x = 2 or 4 and y = 0 or 1

[13]

[14]

# Schedule

## TYPE EXAMINATION CERTIFICATE No.

### DEMKO 12 ATEX 1114875X Rev. 14

Nomenclature:

IS 2 2 0 PTCC H 1 A  
 I II III IV V VI VII

- I -                    2 – Designates non-RoHS  
                          4 -- Designates RoHS
  
- II -                    0 – Designates PWA  
                          1 – Designates PWAs mounted on a base  
                          2 – Designates a module containing PWAs
  
- III -                   0 -- Standard operating environment  
                          1 -- Conformal coating
  
- IV –                   Board name – Four letter shorthand catalog number. For modules, a “Y” first letter designates a SIL certified module  
                          PTCC  
                          YTCC  
                          ESWB  
                          ESWA  
                          PDOA  
                          YDOA  
                          PAIC  
                          YAIC  
                          PDIA  
                          YDIA  
                          PRTD  
                          PVIB  
                          YVIB  
                          JPDL  
                          UCSB  
                          PHRA  
                          PCLA  
                          PCNO  
                          PDIO  
                          PPRA  
                          PPRF  
                          PSCA  
                          PSCH  
                          PSVO  
                          JPDH  
                          PPDA  
                          UCSA  
                          PTUR  
                          YTUR  
                          PPRO  
                          SPRO  
                          BAPA  
                          TBTC (Accessory)  
                          STTC (Accessory)  
                          TRLY (Accessory)  
                          STAI (Accessory)  
                          TBAI (Accessory)  
                          STCI (Accessory)  
                          TBCI (Accessory)  
                          SRTD (Accessory)  
                          TVBA (Accessory)  
                          WNPS (Accessory)  
                          SHRA (Accessory)  
                          TRTD (Accessory)  
                          SCLS (Accessory)  
                          SCLT (Accessory)  
                          SPID (Accessory)  
                          TDBS (Accessory)  
                          TDBT (Accessory)  
                          TREA (Accessory)  
                          WREA (Accessory)  
                          SSCA (Accessory)  
                          TSVC (Accessory)  
                          WSVO (Accessory)  
                          JPDS (Accessory)  
                          TRPA (Accessory)  
                          SPRO (Accessory)



[13]

[14]

# Schedule

## TYPE EXAMINATION CERTIFICATE No.

### DEMKO 12 ATEX 1114875X Rev. 14

TPRO (Accessory)  
SAMB (Accessory)

- V - H – Contains SMT components  
G – Contains no SMT components  
S – Indicates a SIL certified PWA
- VI - Assembly variant - number identifies bill of material used
- VII - Major revision - defines board functional interchangeability

The optical radiation output of the product with respect to explosion protection, according to Annex II clause 1.3.1 of the Directive 2014/34/EU is covered in this certificate based on Exception 1 to the scope of EN 60079-28:2015 for all models

The optical radiation output of the product with respect to explosion protection, according to Annex II clause 1.3.1 of the Directive 2014/34/EU is covered in this certificate based on Exception 3 to the scope of EN 60079-28:2015 for Cat. Nos. IS42yESWAH4A, IS42yESWAH5A, IS42yESWBH4A, and IS42yESWBH5A.

Temperature range:

The relation between ambient temperature and the assigned temperature class is as follows:

Models	Ambient temperature range	Temperature class
All models, except for IS420UCSBH3A, IS220UCSAH1A, IS220PCNOH1A, IS220PPRFH1A, IS42, followed by 0 or 1, followed by ESW followed by A or B, followed by H, followed by 1, 2, 3, 4 or 5, followed by A, IS400JPDHG1A, IS410JPDHG1A, IS411JPDHG1A	-30 °C to +65 °C	T4
IS42, followed by 0 or 1, followed by ESW followed by A or B, followed by H, followed by 1, 2, 3, 4 or 5, followed by A; IS400JPDHG1A, IS410JPDHG1A, IS411JPDHG1A	-40C to +70C	T4
IS420UCSBH3A, IS220UCSAH1A	0 °C to +65 °C	T4
IS220PCNOH1A, IS220PPRFH1A	-20 °C to +55 °C	T4

Electrical data

I/O pack System Cat. Nos. IS220PTCCH1A with Cat. Nos. IS200STTCH1A, IS200STTCH2A, IS200TBTCH1B, IS200TBTCH1C:  
Input: 28 Vdc, 0.16 A max

Cat No. IS220YTCCS1A with Cat. Nos. ISx0ySTTCS1A, ISx0ySTTCS2A, IS200TBTCS1B, ISx0yTBTCS1C. Cat No. IS220YTCCS1A with RoHS-compliant internal board IS400BPTCS1A is intended to be used with accessory terminal board Cat. Nos. ISx0ySTTCS1A, ISx0ySTTCS2A, IS200TBTCS1B, ISx0yTBTCS1C:  
Input: 28 Vdc, 0.16 A max

Cat. Nos. IS42, followed by 0 or 1, followed by ESW followed by A or B, followed by H, followed by 1, 2, 3, 4 or 5, followed by A:  
Input: 24 - 28 Vdc, 1.0 A max

Cat No. IS220PDOAH1A with Cat. Nos. IS200TRLYH2E, IS200TRLYH3E IS200TRLYH1F, IS200TRLYH2F:  
Input: 28 Vdc, 0.71 A max

Cat No. IS220YDOAS1A with Cat. Nos. ISx0yTRLYS1F, ISx0yTRLYS2F;; Model with RoHS compliant boards Cat. No.: IS220YDOAS1A with RoHS compliant internal acquisition board Cat. IS400BPDOS1A, and RoHS compliant terminal boards Cat. Nos. ISx0yTRLYS1F, ISx0yTRLYS2F:  
Input: 28 Vdc, 0.71 A max

Cat. No. IS220PAICH1A with Cat. Nos. IS200STAIH1A, IS200STAIH2A, IS200TBAIH1C:  
Input: 28 Vdc, 0.50 A max

Cat. No. IS220YAICS1A with Cat. Nos. ISx0ySTAIS1A, ISx0ySTAIS2A, ISx0yTBAIS1C ; Cat. No. IS220YAICS1A with RoHS-compliant internal board Cat. No. IS400BPAIS1A with Cat. Nos. ISx0ySTAIS1A, ISx0ySTAIS2A, and ISx0yTBAIS1C:  
Input: 28 Vdc, 0.50 A max

Cat. No. IS220PDIAH1A with Cat. Nos. IS200STCIH1A, IS200STCIH2A, IS200STCIH8A, IS200TBCIH2C, IS200TBCIH4C:  
Input: 28 Vdc, 0.23 A max

Cat. No. IS220YDIAS1A with Cat. Nos. ISx0ySTCIS1A, ISx0ySTCIS2A, ISx0yTBCIS2C: ; Model with RoHS compliant boards Cat. No. IS220YDIAS1A with RoHS compliant internal acquisition board Cat. Nos. IS400BPDIS1A, and terminal boards IS200TBCIS2CISx0ySTCIS1A and ISx0ySTCIS2A:  
Input: 28 Vdc, 0.23 A max

Cat. No. IS220PRTDH1A with Cat. Nos. IS200TRTDH2D, IS200SRTDH1A, IS200SRTDH2A:  
Input: 28 Vdc, 0.24 A max



[13]

[14]

**Schedule**  
**TYPE EXAMINATION CERTIFICATE No.**  
**DEMKO 12 ATEX 1114875X Rev. 14**

Cat. No. IS220PVIH1A with Cat. Nos. IS200TVBAH2A, IS200WNPSH1A:  
Input: 28 Vdc, 0.98 A max

Cat. No. IS220YVIBS1A with Cat. Nos. IS200TVBAS2A, IS200WNPSS1A:  
Input: 28 Vdc, 0.98 A max

Cat. No. IS200JPDG1A:  
Input: 28 Vdc, 7.5 A max

Cat. Nos. IS420UCSBH1A, IS420UCSBH3A, IS420UCSBH4A, IS421UCSBH1A, IS421UCSBH4A, and IS420PPNGH1A:  
Input: 28 Vdc, 1.1 A max

Cat. No. IS420UCSBS1A, IS421UCSBS1A:  
Input: 28 Vdc, 1.1 A max

Cat. No. IS220PHRAH1A with Cat. Nos. IS200SHRAH1A, IS200SHRAH2A:  
Input: 28 Vdc, 0.50 A max

Cat. No. IS220YHRAS1A with Cat. Nos. IS200SHRAS1A, IS200SHRAS2A:  
Input: 28 Vdc, 0.50 A max

Cat. No. IS220PCLAH1A with Cat. Nos. IS210SCLSH1A, IS200SCLTH1A:  
Input: 28 Vdc, 0.78 A max

Cat. No. IS220PCNOH1A with Cat. No. IS200SPIDG1A:  
Input: 28 Vdc, 0.17 A max

Cat. No. IS220PDIOH1A with Cat. Nos. IS200TDBSH2A, IS200TDBTH2A  
Input: 28 Vdc, 0.81 A max

Cat. No. IS220PPRAH1A with Cat. Nos. IS200TREA1A, IS200WREA1A:  
Input: 28 Vdc, 0.5 A max

Cat. No. IS220PPRAS1A with Cat. Nos. IS200TREAS1A, IS200WREAS1A:  
Input: 28 Vdc, 0.5 A max

Cat. No. IS220PPRFH1A with Cat. No. IS200SPIDG1A:  
Input: 28 Vdc, 0.18 A max

Cat. No. IS220PSCAH1A with Cat. Nos. IS200SSCAH1A, IS200SSCAH2A:  
Input: 28 Vdc, 0.36 A max

Cat. No. IS220PSCHH1A with Cat. Nos. IS200SSCAH1A, IS200SSCAH2A:  
Input: 28 Vdc, 0.36 A max

Cat. No. IS220PSVOH1A with Cat. Nos. IS200TSVCH2A, IS210WSVOH1A:  
Input: 28 Vdc, 1.0 A max

Cat. Nos. IS210JPDHG1A, IS400JPDHG1A, IS410JPDHG1A, IS411JPDHG1A:  
Input: 24 - 28 Vdc, 13 A max

Cat. No. IS220PPDAH1A with Cat. No. IS200JPDSG1A:  
Input: 28 Vdc, 0.24 A max

Cat. No. IS220UCSAH1A:  
Input: 28 Vdc, 0.62 A max

Cat. No. IS220PTURH1A with Cat. No. IS200TRPAH1A:  
Power Supply: 28 V dc, 0.41 A dc  
Speed In: -15 to +15 V dc  
Voltage In: 16 to 140 V dc  
E-stop In: 18 to 140 V dc  
E-stop Power Out: 28V dc O.C., 17 mA dc S.C.,  
Contact Out: 28 V dc, 7 A dc

Cat. No. IS220YTURS1A with Cat. No. IS200TRPAS1A; Cat No. IS220YTURS1A with RoHS-compliant internal boards;  
IS400BTURS1A and IS400KTURS1A with accessory terminal board Cat. Nos. IS200TRPAS1A:

Power Supply: 28 V dc, 0.41 A dc  
Speed In: -15 to +15 V dc  
Voltage In: 16 to 140 V dc  
E-stop In: 18 to 140 V dc  
E-stop Power Out: 28V dc O.C., 17 mA dc S.C.  
Contact Out: 28 V dc, 7 A dc



[13]

[14]

## Schedule TYPE EXAMINATION CERTIFICATE No. DEMKO 12 ATEX 1114875X Rev. 14

Cat. No. IS220PPROH1A with Cat. Nos IS200SPROH1A, IS200SPROH2A, IS200TPROH1C, IS200TPROH2C, IS200TREA H1A, IS200TREA H3A:

Power Supply: 28 V dc, 0.37 A dc  
(SPRO,TPRO, TREA) designates the ratings associated with the specific Cat. No. terminal board  
PT In (SPRO/TPRO): 0 to 138 V ac, 5 to 66 Hz  
Speed In (SPRO/TPRO/TREA): -15 to +15 V dc  
Speed Sensor Power Out (TPRO): 24 V dc, 25 mA dc  
Voltage In (TREA): 16 to 140 V dc  
E-stop In (TREA): 18 to 140 V dc  
Contact Out (TREA): 28 V dc, 7 A dc

Cat. No. IS220YPROS1A with Cat. Nos. IS200SPROS1A, IS200TPROS1C, IS200TPROS2C, IS200TREAS1A:

Power Supply: 28 V dc, 0.37 A dc  
(SPRO,TPRO, TREA) designates the ratings associated with the specific Cat. No. terminal board  
PT In (SPRO/TPRO): 0 to 138 V ac, 5 to 66 Hz  
Speed In (SPRO/TPRO/TREA): -15 to +15 V dc  
Speed Sensor Power Out (TPRO): 24 V dc, 25 mA dc  
Voltage In (TREA): 16 to 140 V dc  
E-stop In (TREA): 18 to 140 V dc  
Contact Out (TREA): 28 V dc, 7 A dc

Cat. No. IS210BAPAH1A with Cat. No. IS210SAMBH1A:

Power Supply: 28 V dc, 0.5 A dc  
Pressure In: 12 to 18.5 V dc  
Sensor Power Out: 12 to 18.5 Vdc, 2.9 to 4.3 mA dc  
Buffered Out: -10 to +10 V dc, 5 mA dc

Routine tests:

None.

[16]

Descriptive Documents

The scheduled drawings are listed in the report no. provided under item no. [ 8 ] on page 1 of this Type Examination Certificate.

[17]

Special Conditions of Use:

- Provision shall be made to prevent the rated voltage from being exceeded by transient disturbances of more than 140% of the rated voltage.
- This equipment shall be mounted in an ATEX Zone 2 certified enclosure with a minimum ingress protection rating of at least IP54 (as defined in EN 60529) and used in an environment of not more than Pollution Degree 2 (as defined in EN 60664-1).
- This equipment shall be powered by a switched-mode power supply (SMPS) that is certified for the applicable location and has its output current limited to 20 A maximum, and has the features listed for Vendor Manufactured Control Power supplies in GEH-6721\_Vol\_II, Mark VIe Control, Volume II System Hardware Guide.
- This equipment shall be powered through a power distribution board that is certified for the applicable classified location.
- Mark VIe Cat Nos. IS220PTCCH1A, IS220YTCCS1A, IS220PRTDH1A, IS220PCLAH1A must contain the following installation conditions:
  1. The maximum cable length connecting each thermocouple to the device shall not exceed 1000 feet.
  2. Only resistive simple apparatus, such as thermocouples shall be connected.
  3. Each cable used to connect the simple apparatus must have suitable insulation as required by the applicable local electrical codes.

[18]

Essential Health and Safety Requirements

The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.

