ACCESS CONTROL & DATA PROCESSING TECHNOLOGY

CARD READER KL5-R

Access control and **identification at tank farms, refineries** or **chemical plants** can be organized and automated effetively by use of encrypted RFID cards. The **intrinsically safe** card reader KL5-R and the corresponding data processing systems by TIMM allow to use the **encrypted RFID** technology in **potentially hazardous areas.**

FUNCTIONAL PRINCIPLE

The KL5-R Card Reader can **build up a new** or **extend** an **existing RFID card reader system** of TIMM. It is equipped with three **clearly visible LEDs** (yellow, green, red) that display the operating status and acknowledge reading and transmitting operations. The access information is stored encrypted on the cards and will be read and sent to the data interface connecting to the Host Terminal Automation System for further processing.

APPLICATION AREAS

The card readers are approved for Ex Zone 1 up to **gas group IIC**. They are installed at **loading bays** for petrochemical and chemical products, at **weighting bridges, doors, gates** and **entrance/exit areas**. The aluminum housing offers high protection against **rough environmental conditions**. Optionally a **protection roof** made of stainless steel is available.

TECHNICAL SPECIFICATIONS

Type of protection:
according to ATEX 2014/34/EU:
⟨Ex⟩ II 2 G - Ex ib IIC T4

Permissible Bus Line length:
Max. 1,000 m

Power supply:
Intrinsically safe by TIMM KCS System

Operating temperature: - 25 °C up to + 60 °C

For further information, visit us at **www.timm-technology.de** or contact us in person.

ACCESS CONTROL & DATA PROCESSING TECHNOLOGY

COMMUNICATION CONTROLLER SYSTEM KCS

The Communication Controller System KCS is **the gateway** between TIMM **peripheral devices** located in **hazardous areas,** such as card readers, data terminals, Overfill Prevention Controller EUS-2 on the one hand, and the **host** control system on the other. It builds an **explosion-proof intrinsically safe data bus** and organizes the communication automatically.

FUNCTIONAL PRINCIPLE

The KCS is the **central interface** unit for the connected peripheral devices. It consists of the **processor module KCP** (interface to the host) and the intrinsically safe **interface module KCI-Ex** (interface to the field devices). Data coming from the various field devices will be transferred by the KCS to the single host interface and vice versa. Once established data communication is organized **automatically** without any need of control by the host system. Peripheral devices without an own power supply are intrinsically safe supplied by the KCS.

APPLICATION AREAS

The TIMM data system is used in **gas hazardous areas** to connect installed devices for remote status indication, operating data transfer or to build up an access control and authentication system by RFID card readers, e.g. in **oil depots, refineries, chemical plants.** The interface modules KCI-Ex can be arranged in series, allowing to operate a processor module with several interface modules for **up to 32 slaves** in total. A combination with non-Ex interface modules is possible.

UNIVERSAL INTERFACE

The KCS has an universal interface to the host/PLC that can be **individually configured** as RS422, RS232, or TTY-interface. An easy connection to **profi bus/DP or other field bus systems** is possible via bus coupler/protocol converter or soft SPS.

PRODUCT BENEFITS

- Intrinsically safe data bus up to **gas group IIC**
- **Ready to operate** after one-time system initialization
- **Project specific configuration** possible by modular design in the subrack
- Reliable data communication in hazardous areas for **more than 40 years**

H. TIMM ELEKTRONIK GmbH

Senefelder-Ring 45   Tel. +49 40 248 35 63 - 0
21465 Reinbek   info@timm-technology.de
Germany   www.timm-technology.de