# **Control Equipment**



Potentiometer 8455



**Pushbutton 8003** 



Illuminated pushbutton 8018



**Diode indicator** 8013



Switch 8003/5



STAHL



Switch 8003/7



Ammeter 8401

# Control equipment for panel mounting

Control stations can be ordered with explosion protected control and display equipment. A patented fixing mechanism saves time when mounting these devices. The devices below are available for insertion into 30,5 mm holes.

- Pushbuttons 8003/8083
- Switches 8003
- Illuminated pushbuttons 8013
- Display lamps 8415
- Potentiometers 8455
- Ammeters 8401

In addition to the devices described above, other measuring, regulation and display devices can be supplied for fitting into switchgear cabinets and control desks:

- Ammeters 8401
- Control devices 8218 with: Pulse counters, operating hours counters, potentiometers, ammeters or keyboards
- Control devices 8214 with: Time relays, preset pulse counters, ammeters.

Series 8214 and 8218 enclosures can be supplied fitted with measuring, control and regulation devices.



Control device 8214 with time relay



Control device 8218 with keyboard



with ammeter

#### **Series**

The devices are available with:

- an encapsulated connector lead
- EEx e terminals

Those with EEx e connection leads are "incomplete Ex components". For this reason, installations in which these devices are used must be tested by a qualified expert.

#### Front elements

The actuators and bezels all have protection class IP 65. Their impact resistance is > 7 Nm, and the actuators can thus be used in EEx e cabinets.

### The internal components

#### **Pushbuttons**

Three contact types are offered: 1 NO; 1 NC + 1 NO; 3 changeover.

The NC contacts are spring-loaded; hence they can be used for EMERGENCY-OFF functions in accordance with IEC 204/VDE 0113.

#### **Indicating lamps**

This consists of a mains and a lamp section. The lamp section is composed of several LEDs, with the brightness enhanced optically. LED indicators are maintenance-free, shock- and vibration-resistant and have a very long mechanical life.

# Illuminated pushbutton

Control and display are combined in one component here.

Illuminated pushbuttons are made in spring-return and latching versions. Switching and display functions are independent, so that the function can be matched to the needs of the user by external wiring.

# **Control switches**

These can be fitted with a maximum of 2 switch contacts. A number of different switching functions in latching or spring-return versions can be supplied.

# Potentiometers

Potentiometers can be supplied in ranges 100 ohm to 4 Mohm with powers up to 2 W.



## **Fitting**

The actuator is pushed into the panel hole and snaps tight automatically. The associated switch component or mains device is pushed onto the actuator from the back and fixed to it using a large-area retaining unit.

EEx control desk, equipped with control

buttons and switches 8003



Control desk in flameproof class EEx de IIC T 5; the internal components have encapsulated connectors, the connectors are wired to EEx terminals strips.