



# IKD 1

## I/O Expansion Board

### APPLICATIONS

The IKD 1 is an "Intelligent Terminal" or "Extension Board". It allows an additional 8 discrete inputs and 8 relay outputs to be connected, via CAN bus, to other Woodward products such as the GCP-30 Series controller (with Option SC06). It is possible to connect up to two IKD 1 units to one GCP-30 (refer to product specification 03240).

Each of the inputs can be assigned a name, alarm class, NO/NC configuration and time delay. The name and class are then displayed on the controller face digital readout panel.

The IKD 1 output relays are controlled over the CAN bus connection from the main controller (e.g. GCP-30 Series). Configuration of the IKD 1 is performed through the relay manager in the main controller and transmitted to the IKD 1.

A direct configuration cable (DPC) and software can be purchased for use with a PC or laptop and may be advisable for extensive configuration applications or where several similar units are to be set up.

### DESCRIPTION

#### Features

- 8 configurable discrete alarm inputs
- 8 configurable relays
- Configurable delays for each input
- CAN bus communication
- The discrete inputs transfer their status via CAN bus to the control unit.
- The control unit evaluates the status of these discrete inputs coming from the IKD 1 and depending on the configuration of the control unit, will take the appropriate action.
- The control unit can send commands via the CAN bus to remotely control the output relays of the IKD 1.
- The IKD 1 can be used with other manufacturer's controllers. Consult product manual 37135 for information regarding the address assignments of the CAN bus interface.

#### Product Number P/N

- 8440-2028

- 8 discrete inputs
- 8 relay outputs
- PC configurable
- CAN bus communication
- Microprocessor technology for accurate, repeatable and reliable operation
- UL/cUL Listing

# SPECIFICATIONS

Power supply ..... 12/24 Vdc (6 to 36 Vdc)  
 Intrinsic consumption ..... max. 3 W  
 Ambient temperature ..... -20 to 70 °C  
 Ambient humidity ..... 95 %, non-condensing

**Discrete inputs** ..... isolated  
 Input range ..... 12/24 Vdc (6 to 32 Vdc)  
 Input resistance ..... approx. 6.8 kΩ

**Relay outputs** ..... isolated  
 Contact material ..... AgCdO  
 Load (GP) ..... 2.00 Aac@250 Vac  
 .... 2.00 Adc@24 Vdc / 0.36 Adc@125 Vdc / 0.18 Adc@250 Vdc  
 Pilot duty (PD) .....  
 .... 1.00 Adc@24 Vdc / 0.22 Adc@125 Vdc / 0.10 Adc@250 Vdc

**Service interface** .....  
 Version ..... RS-232

**CAN interface** ..... isolated  
 Insulation voltage (continuously) ..... 100 Vac  
 Insulation test voltage (≤ 5 s) ..... 1,000 Vac  
 Version ..... CAN bus  
 Internal line termination ..... not available

**Housing** .....  
 DIN-rail mounting ..... extrusion profile Um 122  
 ..... to snap-on on a DIN rail/C-profile  
 ..... 168 × 128 × 51 mm

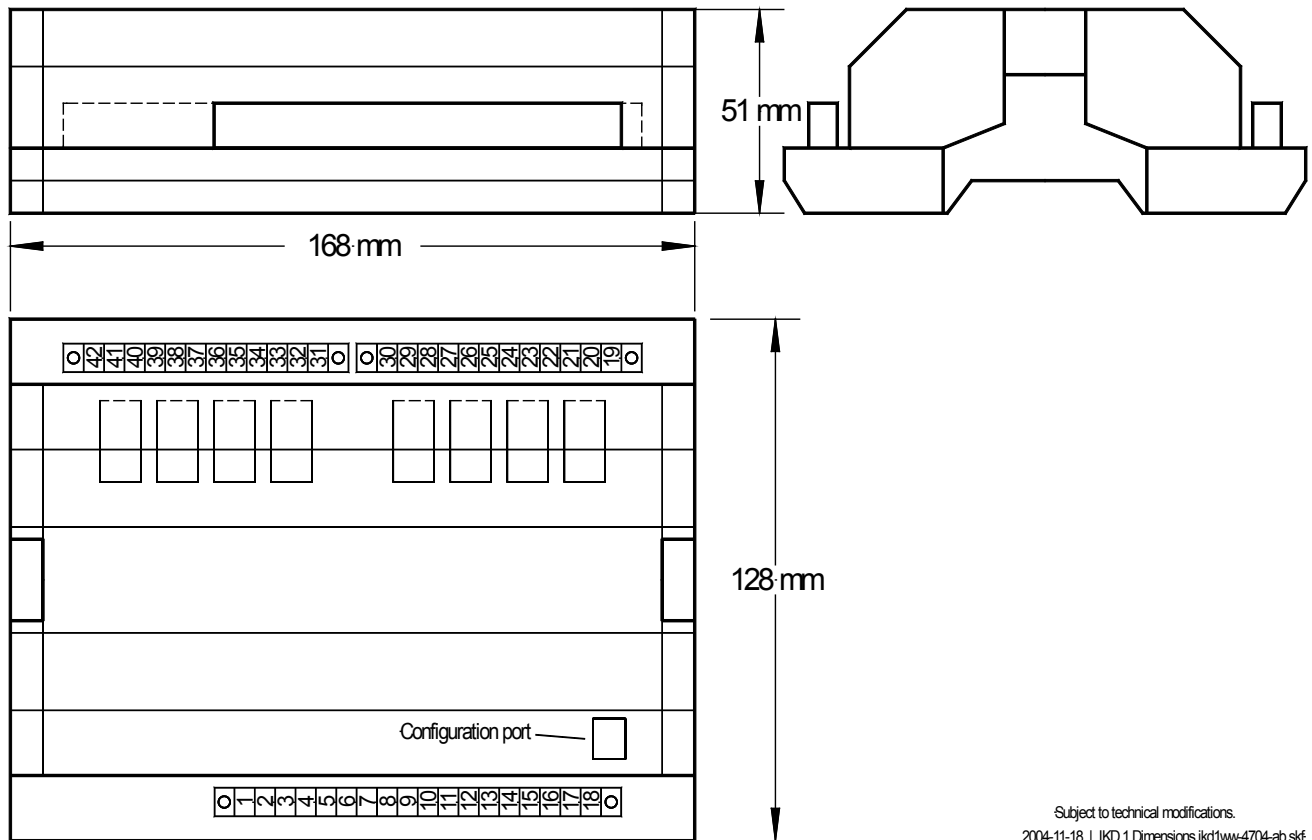
**Connection** ..... screw/plug terminals 2.5 mm<sup>2</sup>

Weight ..... approx. 360 g  
 Protection system ..... IP 00

**Disturbance test (CE)** ..... tested according to  
 ..... applicable EN guidelines

**Listings** ..... UL/cUL

# DIMENSIONS



Subject to technical modifications.  
 2004-11-18 | IKD 1 Dimensions ikd1ww-4704-ab.skf



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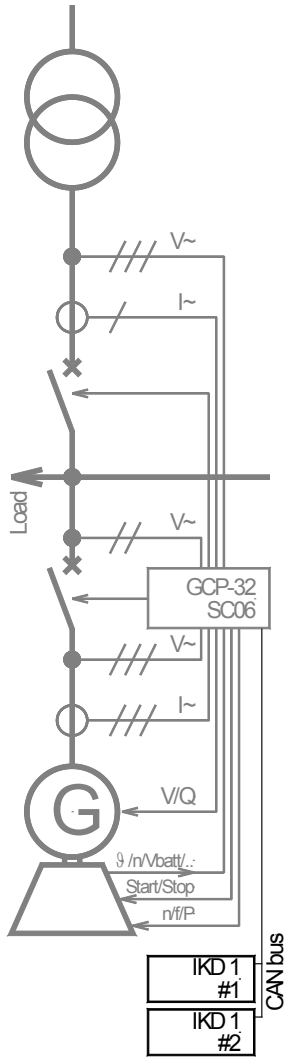
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**TYPICAL APPLICATIONS**



The digital inputs are read by the IKD 1 and transferred via the CAN bus to the control unit (incl. alarm class). Each alarm input may have a delay as well as the control logic (NO/NC) configured individually during set up. The status of the alarm input is monitored in the control device and will show the alarm text in its display. The alarm class assigned in the control device evaluates the alarm input and reacts accordingly.

The control device's relay manager controls the IKD 1 relays. The control logic for each IKD 1 relay can be programmed individually in the control device. Logical commands can be configured using internal events as well as the status of the digital inputs coming from the IKD 1.

If a discrete input on the IKD 1 is enabled, the control device displays a text message and the control functions of the alarm class are executed (refer to all manuals relating to the control device). The control device must operate the IKD 1 relays.

Subject to technical modifications.

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