



- Sixteen channels can be used in pairs as inputs or outputs (24 V/0.5 A)
- Ex ec inputs/outputs with line fault monitoring, an LED fault and status display for each channel and SIL2 shutdown input
- Module in Zone 2 can be replaced without having to disconnect the power supply (i.e. hot-swapped)

A4

MY R. STAHL 9472A



The 9472/35 24 V digital input/output module for Zone 2 has 16 channels which can be used in pairs for operation as inputs for contacts and PNP or NAMUR proximity switches (EN 60947-5-6) or as outputs for solenoid valves up to 24 V/0.5 A. Eight inputs can be used for frequencies of up to 20 kHz, and four can be used for detecting the direction of rotation.

All inputs/outputs are short-circuit proof and galvanically separated from the system. Additional control input for "Plant STOP" (IEC 61508/up to SIL2).

| | IECEX / ATEX | | | | | |
|-----------------|--------------|---|---|----|----|----|
| | 0 | 1 | 2 | 20 | 21 | 22 |
| Zone | | | | | | |
| Ex interface | | | • | | | |
| Installation in | | | • | | | |

| | NEC® 500 CE Code Appendix J | | | | | |
|-----------------|--------------------------------|---|----------|---|-----------|---|
| | Class I | | Class II | | Class III | |
| Division | 1 | 2 | 1 | 2 | 1 | 2 |
| Ex interface | | • | | | | |
| Installation in | | • | | | | |

| | CE Code Section 18 | | | | | |
|-----------------|---------------------|---|---|----------|----|----|
| | NEC® 505 Class I | | | NEC® 506 | | |
| Zone | 0 | 1 | 2 | 20 | 21 | 22 |
| Ex interface | | | • | | | |
| Installation in | | | • | | | |

| Selection Table | | | | |
|---|-----------------------|--|----------|--------|
| Installation | Zone 2 and safe areas | | | |
| Number of channels | Product Type | | Art. No. | Weight |
| (adjustable parameters in pairs) 16 Ex ec inputs/outputs | 9472/35-16-12 | | 230239 | 275 g |
| Please order two terminals separately – see accessories and spare parts | | | | |

| Technical Data | |
|---------------------------------------|---|
| Explosion Protection | |
| IECEX gas explosion protection | Ex ec ic [ia Ga] IIC T4 Gc |
| ATEX gas explosion protection | Ⓔ II 3 (1) G Ex ec ic [ia Ga] IIC T4 Gc |
| Certificates | ATEX (DEK), Canada (FM), China (NEPSI), IECEX (DEK), India (PESO), Korea (KTL), SIL (exida), USA (FM) |
| Declaration of Conformity | ATEX (EUK), China (CCC) |
| Electrical Data | |
| Max. number of 3-conductor PNP inputs | 16 (channels 0 ... 15) |
| Auxiliary Power | |
| Current consumption | 90 mA |
| Max. power consumption | 2.2 W |
| Max. power dissipation | Output: 5.4 W Input: 1.4 W |
| Input | |
| Max. number of frequency inputs | 8 (channel 8 to 15) |

Technical Data

Input

| | |
|-------|--|
| Notes | <p>Max. supply voltage PNP: corresponds to the external supply voltage U_H (X0)</p> <p>External supply voltage U_H (X0): 18 to 32 V DC (nominal voltage 24 V)</p> <p>Max. current consumption (X0): 4 x 0.5 A (depends on the total current of the binary outputs)</p> <p>IEC 60947-5-6-1999 (NAMUR), 3-conductor PNP proximity switches and active 24 V signals with and without 47 kΩ resistor connected in parallel</p> |
|-------|--|

Output

| | |
|------------------------------|---|
| Supply voltage binary output | Corresponds to the ext. supply voltage U_H - 0.7 V (X0) |
| Output current binary output | 30 mA to 0.5 A per channel (electronically limited) |
| Notes | If auxiliary power is not connected: 6 V/2 mA |

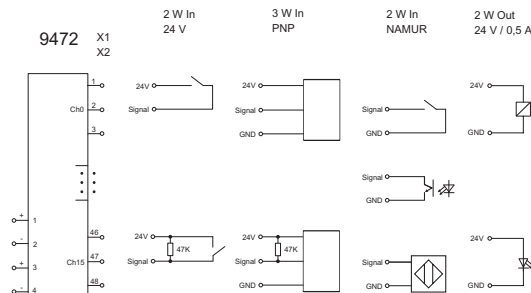
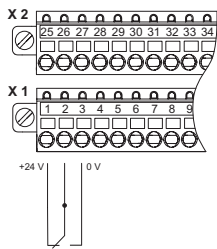
Ambient Conditions

| | |
|---------------------|-----------------|
| Ambient temperature | -40°C ... +75°C |
|---------------------|-----------------|

Mechanical Data

| | |
|---------------------------------------|---------|
| Degree of protection (IP) (IEC 60529) | IP20 |
| Width | 96.5 mm |
| Height | 67 mm |
| Length | 128 mm |

Technical Drawings – Subject to Alterations



9472/35 connection diagram

Accessories

| Figure | Description | Art. No. | Weight |
|---|--|----------|--------|
| Pluggable terminal | | | |
| | 1.5 mm ² with lock, 24-pin, spring clamp connection, black, for connecting the field signals to I/O modules, for non-intrinsically safe field circuits Version: Only for 9469, 9471 and 9472 I/O modules Labelling: 1 to 24 | 245090 | 20 g |
| | 1.5 mm ² with lock, 24-pin, spring clamp connection, black, for connecting the field signals to I/O modules, for non-intrinsically safe field circuits Version: Only for 9469, 9471 and 9472 I/O modules Labelling: 25 to 48 | 245091 | 20 g |
| Resistor error message suppression | | | |
| | The resistors are used to suppress error messages for unused I/O channels Resistance value: 5K6/0.5 W Suitable for: AIM 9468; UMH 9469; DIOM 9470; DIOM 9471; DIOM 9472; DOM 9475 For intrinsically safe circuits (simple apparatus according to EN 60079-11) | 244911 | - |
| Partition | | | |
| | For mounting between intrinsically safe and non-intrinsically safe connections between I/O modules to maintain a tight string length of 50 mm | 220101 | 10 g |

| Accessories | | | |
|------------------------------|---|----------|--------|
| Figure | Description | Art. No. | Weight |
| Warning label | | | |
| | "Clean modules only with a damp cloth." | 162796 | 1 g |
| DIN A4 sheet | | | |
| | For label plate on I/O modules; 6 plates per sheet; IS Wizard printout; packaging unit = 20 sheets | 162832 | 1 g |
| Labelling strips | | | |
| | "FB Addr ... Mod No ..." for pluggable terminal, 26 pieces on the sheet | 162788 | 1 g |
| Vibration bracket set | | | |
| | When installed in environments with extreme vibration (> 0.7 g and max. 4 g), the 9490 vibration brackets may be used as an additional measure and provide mechanical stability for the individual modules. For mounting: All I/O modules, except 9477/12 and 9478 Number of brackets in a set: 8 Screws (item no. 275516) must be ordered separately. | 271920 | - |
| Set of screws | | | |
| | Set of M5 x 14 screws (self-tapping) for 9490 vibration brackets Number of screws in a set: 25 | 275516 | - |

Dimensional Drawings (All Dimensions in mm [inches]) – Subject to Alterations

