

## Remote I/O

### Remote I/O IS1+ Termination board for Zone 2

9491/T1-08-02 Art. No. 273018

STAHL



- Redundant operation of IS1+ I/O modules
- Suitable for I/O modules with non-intrinsically safe I/O from firmware 4.xx
- Simple installation on DIN rail and connection via push-in terminals
- Installation in Zone 2

MY R. STAHL 9491A



Type 9491/T1 termination boards and the corresponding type 9491/Z1 connection cables are accessories for the IS1+ Remote I/O system. The devices can be used in hazardous areas in Zone 2 as well as in safe areas, and are used for parallel switching of non-intrinsically safe field circuits of two IS1+ I/O modules of the same type (from firmware 4.xx) and thereby enable I/O redundancy.

## Technical Data

| Explosion Protection                 |                                                     |
|--------------------------------------|-----------------------------------------------------|
| Application range (zones)            | 2                                                   |
| Ex interface zone                    | 2                                                   |
| IECEX gas certificate                | IECEX TUR 19.0072X                                  |
| IECEX gas explosion protection       | Ex ec IIC T4 Gc                                     |
| ATEX gas certificate                 | TÜV 19 ATEX 8462 X                                  |
| ATEX gas explosion protection        | II 3 G Ex ec IIC T4 Gc                              |
| Certificates                         | ATEX (TUR), China (NEPSI), IECEX (TUR), Korea (KTL) |
| Ship approval                        | LR                                                  |
| Declaration of conformity            | ATEX (EUK), China (CCC)                             |
| Electrical Data                      |                                                     |
| Signal types                         | Analogue input/output                               |
| Type of signal                       | 2-conductor AI/AO<br>3-, 4-conductor AI             |
| Number of channels                   | 8                                                   |
| Nominal voltage Un, analogue         | 21 V DC                                             |
| Nominal current, analogue (In/Out)   | 0 – 24 mA                                           |
| Auxiliary Power                      |                                                     |
| Auxiliary power                      | without                                             |
| Polarity reversal protection         | Yes, mechanical                                     |
| Galvanic Isolation                   |                                                     |
| Test voltage for galvanic separation | According to standard IEC EN 60079-11               |
| Galvanic separation input to output  | 1800 V AC                                           |
| Input                                |                                                     |
| Input                                | Primary, redundant                                  |
| Function                             | Connection to I/O modules                           |
| Compatible I/O modules               | 9469/35                                             |

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#### Input

|                                      |   |
|--------------------------------------|---|
| Number of input connections          | 2 |
| Number of required connection cables | 2 |

#### Output

|                              |                            |
|------------------------------|----------------------------|
| Output                       | Simplex                    |
| Output function              | Connection to field device |
| Number of output connections | 2                          |

#### Ambient Conditions

|                               |                                                                                                                            |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Ambient temperature           | -40 °C ... +75 °C                                                                                                          |
| Ambient temperature           | -40 °F ... +167 °F                                                                                                         |
| Storage temperature           | -40 °C ... +80 °C                                                                                                          |
| Storage temperature           | -40 °F ... +176 °F                                                                                                         |
| Maximum relative humidity     | 95% (without condensation)                                                                                                 |
| Max. operating altitude       | < 2000 m                                                                                                                   |
| Max. operating altitude, ft   | < 6562 ft                                                                                                                  |
| Electromagnetic compatibility | Checked in accordance with the following standards and regulations: EN 61326-1<br>For use in industrial areas: NAMUR NE 21 |

#### Mechanical Data

|                                       |                   |
|---------------------------------------|-------------------|
| Degree of protection (IP) (IEC 60529) | IP20              |
| Module enclosure                      | Polyamide 6GF     |
| Fire resistance (UL 94)               | V2                |
| Pollutant class                       | Corresponds to G3 |
| Stripping length                      | min. 9 mm         |
| Weight                                | 250 g             |
| Weight                                | 0.551 lb          |

#### Mounting / Installation

|                                        |                                     |
|----------------------------------------|-------------------------------------|
| Mounting type                          | DIN rail NS35/15, NS35/7.5          |
| Mounting orientation                   | any                                 |
| Connection type                        | Push-in terminal, 12-pole           |
| Connection type 2                      | Sub-D socket, 24-pole<br>Screw lock |
| Min. rigid conductor cross section     | 0.08 mm <sup>2</sup>                |
| Conductor cross-section rigid AWG min. | AWG 28                              |
| Max. rigid conductor cross section     | 1.5 mm <sup>2</sup>                 |
| Conductor cross-section rigid AWG max. | AWG 16                              |
| Min. flex conductor cross section      | 0.25 mm <sup>2</sup>                |
| Conductor cross-section flex AWG min.  | AWG 24                              |
| Max. flex conductor cross section      | 1.5 mm <sup>2</sup>                 |
| Conductor cross-section flex AWG max.  | AWG 16                              |

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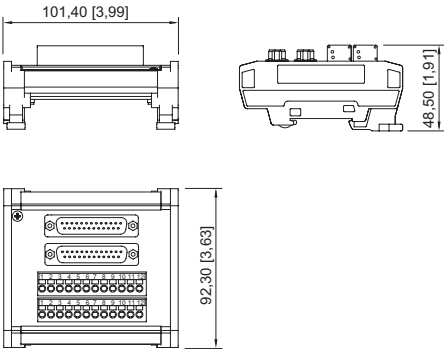
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Dimensional Drawings (All Dimensions in mm [inches]) – Subject to Alterations



Type 9491/T1-08-02

Accessories

| Connecting cable |                                                                                                                                       | Art. No. |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------|----------|
|                  | The connection cables are used for the connection between the redundant I/O modules and the termination board.<br>Cable length: 0.5 m | 276888   |
|                  | The connection cables are used for the connection between the redundant I/O modules and the termination board.<br>Cable length: 1 m   | 276889   |

We reserve the right to make alterations to the technical data, dimensions, weights, designs and products available without notice. The illustrations cannot be considered binding.