

# PI-EX-SD-24-48

Order No.: 2865298




<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2865298>

Ex-i solenoid driver, pluggable. To control intrinsically safe solenoid valves, alarm modules as well as simple electric equipment installed in Ex areas. For Group IIC gases, loop-powered. Electrical isolation.



SIL 3

| Commercial data          |  |
|--------------------------|--|
| GTIN (EAN)               | <br>4 046356 147101 |
| Note                     | Made-to-order  |
| sales group              | H704   |
| Pack                     | 1 pcs.   |
| Customs tariff           | 85437090   |
| Catalog page information | Page 463 (IF-2009)   |

### Product notes

WEEE/RoHS-compliant since:  
02/19/2007



<http://www.download.phoenixcontact.com>  
Please note that the data given here has been taken from the online catalog. For comprehensive information and data, please refer to the user documentation. The General Terms and Conditions of Use apply to Internet downloads.

| Technical data                               |  |
|--|--|
| Output data                                  |  |
| Output characteristic curve: Output resistor | $\leq 278 \Omega$ (Internal resistance $R_i$ ) |
| Response time                                | $< 30 \text{ ms}$                              |

**Compatible valves**

|      |   |
|------|---|
| Note | This is an extract of possible combinations of valves and solenoid drivers. |
|------|---|

|  |   |
|--|---|
| Compatible valve   | ASCO Coil 195   |
|  | ASCO Coil 302 (12 V)                                  |
|  | Bürkert Coil AC 10 standard                           |
|  | Bürkert Coil AC 10 high resistance                    |
|  | Bürkert Coil AC 21 standard 700 mW / 65°C             |
|  | Bürkert Coil AC 21 high resistance 700 mW / 65°C      |
|  | Bürkert Coil AC 21 standard 900 mW / 45°C             |
|  | Bürkert Coil AC 21 high resistance 900 mW / 45°C      |
|  | Bürkert Coil AC 21 standard 900 mW / 60°C             |
|  | Bürkert Coil AC 21 high resistance 900 mW / 60°C      |
|  | Bürkert Coil G1 642735 standard 800 mW / 40°C         |
|  | Bürkert Coil G1 642735 high resistance 800 mW / 40°C  |
|  | Bürkert Coil G1 642735 standard 1000 mW / 40°C        |
|  | Bürkert Coil G1 642735 high resistance 1000 mW / 40°C |
|  | FESTO Coil MFH-...IA-SA-EX GBXE022AIAD03              |
|  | FESTO Coil (J)MFH-...BIA-SA-EX GBXE022AIAD03          |
|  | Norgren Herion Coil 2050                              |
|  | Norgren Herion Coil 2051                              |
|  | Norgren Herion Coil 2052                              |
|  | Norgren Herion Coil 2053                              |
|  | Norgren Herion Coil 2080 / 2082                       |
|  | Norgren Herion Coil 2081 / 2083                       |
|  | Norgren Herion Coil 2084                              |
|  | Norgren Herion Coil 3039                              |
|  | Nass Coil 1259 30.1-00                                |
|  | Nass Coil 1259 50.1-00                                |
|  | Parker Coil VZ07 488650.01                            |
|  | Parker Coil VZ33 494035.10                            |
|  | Parker Coil VZ08 488660.01                            |
|  | Parker Coil VZ09 488670.01                            |
|  | Parker Coil VZ95 482160.01 EEx ia IIB T6              |
|  | Parker Coil VZ23 482870.01                            |
|  | Samson Coil 3701-12 (12 V)                            |
|  | Samson Coil 3701-13 (24 V)                            |
|  | Samson Coil 3963-12 (12 V)                            |
|  | Samson Coil 3963-13 (24 V)                            |
|  | Samson Coil 3964-12 (12 V)                            |
|  | Samson Coil 3964-13 (24 V)                            |
| PHOENIX CONTACT Inc., USA<br><a href="http://www.phoenixcon.com">http://www.phoenixcon.com</a> | Seitz Pilot valve PV 12F73 Ci oH                      |
|  | Seitz Pilot valve PV 12F73 Xi oH                      |
|  | Seitz Pilot valve PV 12F73 Xi oH-2                    |
|  | Seitz Solenoid coil 11 G 52                           |

**Power supply**

|                          |                      |
|--------------------------|----------------------|
| Max. current consumption | < 110 mA (at 24 V)   |
| Power consumption        | max. 1.5 W (at 24 V) |

**General data**

|   |   |
|---|---|
| Maximum temperature coefficient         | 0.01 %/K  |
| Ambient temperature (operation)         | -20 °C ... 55 °C  |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C  |
| Permissible humidity (operation)        | 10 % ... 95 % (relative humidity, no condensation)              |
| Status display                          | Yellow LED (status display)<br>Red LED (line errors)            |
| Width                                   | 12.4 mm   |
| Height                                  | 145 mm  |
| Depth                                   | 147 mm  |
| Inflammability class acc. to UL 94      | V0  |
| Housing material                        | PBT and polyamide PA non-reinforced                             |
| Degree of protection                    | IP20  |
| Color                                   | green   |
| Electrical isolation input / output     | 2.5 kV (50 Hz, 1 min., test voltage)                            |
| Conformance                             | CE-compliant  |
| ATEX                                    | Ex II (1) GD [Ex ia] IIC / IIB / IIA<br>Ex II 3 G Ex nA II T4 X |
| Functional safety (SIL)                 | SIL 3   |

**Safety characteristic data**

|  |   |
|--|---|
| Integrity requirement  | for IEC 61508 - Low demand                |
| Equipment type   | Type A                                    |
| Safety Integrity Level (SIL)                                       | 3   |
| Safe Failure Fraction (SFF)  | 100 %                                     |
| $\lambda_{SU}$   | $2.84 \times 10^{-7}$ (284 FIT)           |
| $\lambda_{SD}$   | 0   |
| $\lambda_{DU}$   | 0   |
| $\lambda_{DD}$   | 0   |
| Probability of a hazardous failure on demand (PFD <sub>AVG</sub> ) | 0 (1 year)<br>0 (5 years)<br>0 (10 years) |

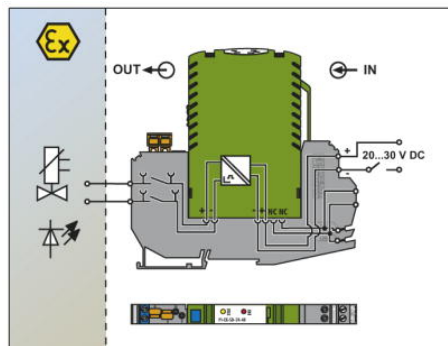
|   |  |
|---|--|
| Diagnostic coverage (DC)                      | (DC <sub>s</sub> = 0%, DC <sub>D</sub> = 0%)                           |
| <b>Safety data</b>                            |  |
| Max. voltage U <sub>o</sub>                   | 27.7 V   |
| Max. current I <sub>o</sub>                   | 101 mA   |
| Max. power P <sub>o</sub>                     | 697 mW   |
| Gas group                                     | II A   |
| Max. external inductivity L <sub>o</sub>      | 20 mH  |
| Max. external capacity C <sub>o</sub>         | 0.44 µF  |
| Gas group                                     | II B   |
| Max. external inductivity L <sub>o</sub>      | 2 mH   |
| Max. external capacity C <sub>o</sub>         | 0.29 µF  |
| Gas group                                     | II C   |
| Max. external inductivity L <sub>o</sub>      | 0.5 mH   |
| Max. external capacity C <sub>o</sub>         | 0.067 µF   |
| Max. ratio L <sub>o</sub> /R <sub>o</sub>     | 51.1 µH/Ω  |
| Additional text                               | Please follow the technical data regarding the connecting cables used. |
| Safety-related maximum voltage U <sub>m</sub> | 250 V AC (125 V DC)  |

**Certificates / Approvals**

Certification Ex: PxC-EX, TUEV-N-EX

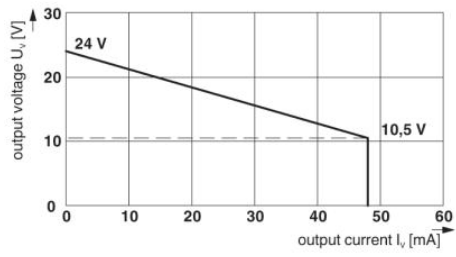
**Diagrams/Drawings**

Block diagram



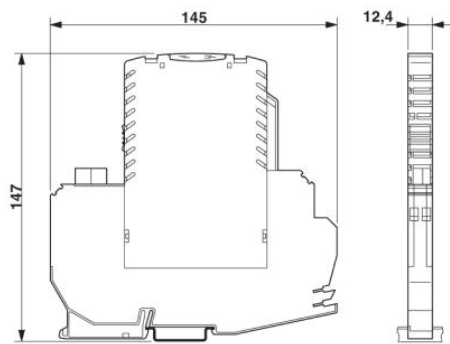
Diagram

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Dimensioned drawing

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