

Solenoid driver - PI-EX-SD-21-25 - 2865201

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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.



Key Commercial Data

Packing unit	1 pc
GTIN	 4 046356 134842
GTIN	4046356134842
Weight per Piece (excluding packing)	88.600 g
Custom tariff number	85437090
Country of origin	Germany

Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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Dimensions

Width	12.4 mm
Height	79 mm
Depth	118.4 mm

Ambient conditions

Ambient temperature (operation)	-20 °C ... 55 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Permissible humidity (operation)	10 % ... 95 % (relative humidity, non-condensing)

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Output data

Output characteristic curve: Output resistor	654 Ω (Internal resistance R_i)
Response time	< 30 ms

Compatible valves

Note	This is an extract of possible combinations of valves and solenoid drivers.
Compatible valve	Norgren Herion Coil 2080 / 2082
	Norgren Herion Coil 2081 / 2083
	Norgren Herion Coil 2084
	Hörbiger Piezo P8 38x RF-Nx-SPN65 30 V type
	Hörbiger Piezo P20 381RF-NG-CPN61 30 V type
	Samson Coil 3701-11 (6 V)
	Samson Coil 3701-12 (12 V)
	Samson Coil 3701-13 (24 V)
	Samson Coil 3963-11 (6 V)
	Samson Coil 3963-12 (12 V)
	Samson Coil 3963-13 (24 V)
	Samson Coil 3964-11 (6 V)
	Samson Coil 3964-12 (12 V)
	Samson Coil 3964-13 (24 V)
	Seitz Pilot valve PV 12F73 Ci oH
	Seitz Pilot valve PV 12F73 Xi oH
	Seitz Pilot valve PV 12F73 Xi oH-2

Power supply

Max. current consumption	50 mA (at 24 V)
Power dissipation	max. 0.9 W (at 24 V)

General

Maximum temperature coefficient	0.01 %/K
Status display	Yellow LED (status display)
	Red LED (line errors)
Housing material	PBT and polyamide PA non-reinforced
Color	green
Designation	Input/output
Electrical isolation	375 V (Peak value as per EN 50020 / EN 60079-11)

Safety characteristic data

Integrity requirement	IEC 61508 - Low demand
Equipment type	Type A

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Safety characteristic data

Safety Integrity Level (SIL)	3
Safe Failure Fraction (SFF)	100 %
λ_{SU}	2.84×10^{-7} (284 FIT)
λ_{SD}	0
λ_{DU}	0
λ_{DD}	0
Probability of a hazardous failure on demand (PFD _{AVG})	0 (1 year)
	0 (5 years)
	0 (10 years)
Diagnostic coverage (DC)	DC _S =0 %, DC _D =0 %

Safety data

Max. output voltage U _o	25.1 V
Max. output current I _o	39 mA
Max. output power P _o	245 mW
Group	IIA
Max. external inductivity L _o	20 mH
Max. external capacitance C _o	0.66 µF
Group	IIB
Max. external inductivity L _o	5 mH
Max. external capacitance C _o	0.43 µF
Group	IIC
Max. external inductivity L _o	0.5 mH
Max. external capacitance C _o	0.093 µF
Safety-related maximum voltage U _m	250 V AC (125 V DC)

Standards and Regulations

Conformance	CE-compliant
ATEX	# II (1) GD [Ex ia] IIC / IIB / IIA
	# II 3 G Ex nA II T4 X
Group	IIA
	IIB
	IIC

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years

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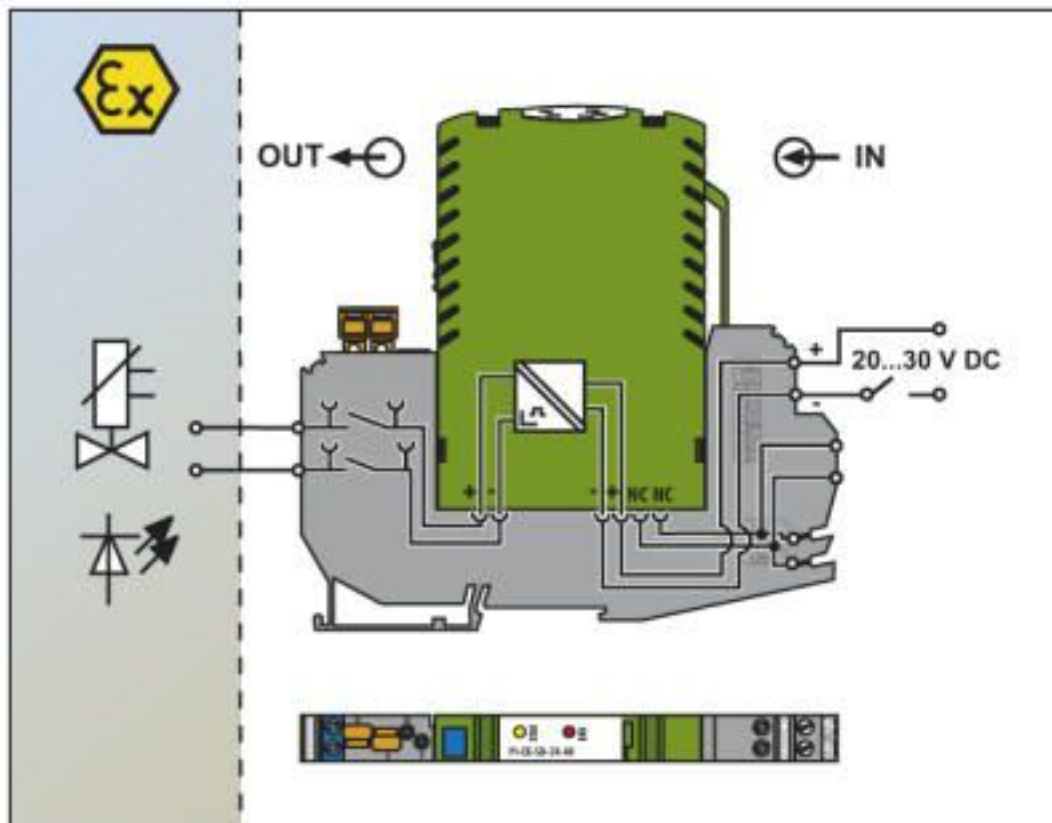
Technical data

Environmental Product Compliance

For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

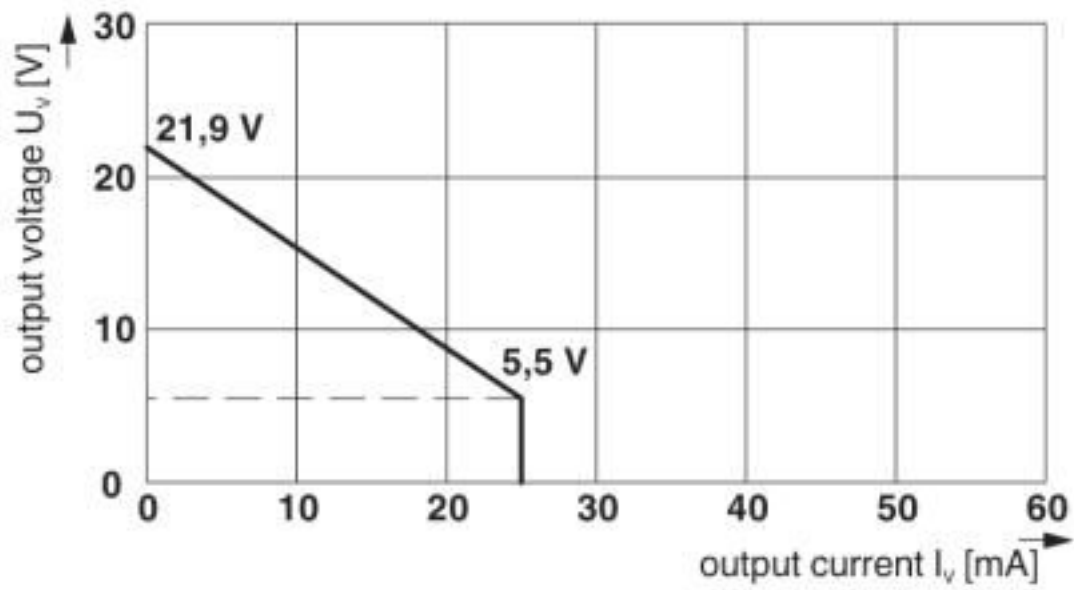
Drawings

Block diagram



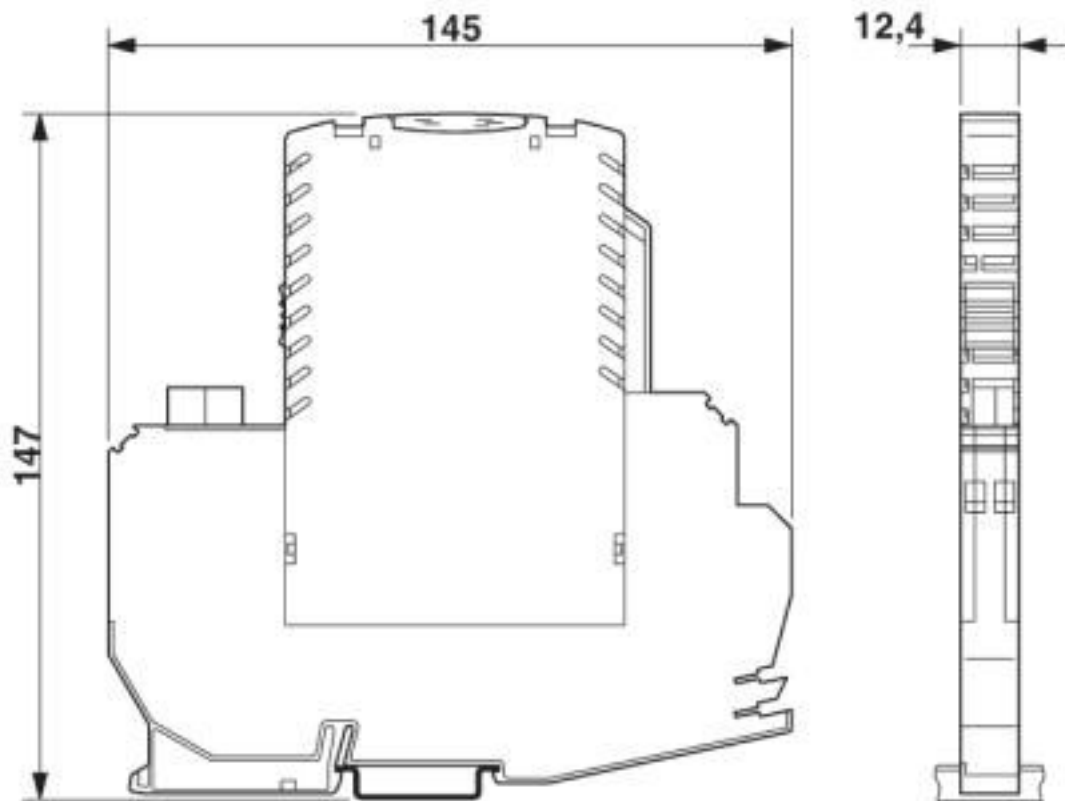
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Diagram



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Dimensional drawing



Classifications

eCl@ss

eCl@ss 10.0.1	27210120
eCl@ss 4.0	27210100
eCl@ss 4.1	27210100
eCl@ss 5.0	27210100
eCl@ss 5.1	27210100
eCl@ss 6.0	27210100
eCl@ss 7.0	27210120
eCl@ss 8.0	27210120
eCl@ss 9.0	27210120

ETIM

ETIM 4.0	EC002653
ETIM 5.0	EC002653
ETIM 6.0	EC002653

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Classifications

ETIM

ETIM 7.0	EC002653
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UNSPSC

UNSPSC 6.01	30211506
UNSPSC 7.0901	39121008
UNSPSC 11	39121008
UNSPSC 12.01	39121008
UNSPSC 13.2	39121008
UNSPSC 18.0	39121008
UNSPSC 19.0	39121008
UNSPSC 20.0	39121008
UNSPSC 21.0	39121008

Approvals

Approvals

Approvals

Functional Safety

Ex Approvals

EAC Ex

Approval details

Functional Safety	06/06-05 R004 V2R0
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