



Figure similar

SIMATIC S7, digital output SM 322, isolated, 4 DO, 15 V / 20 mA 1 x 20-pole, for signals from the hazardous area, diagnostics-capable, PTB tested

Supply voltage	
Load voltage L+	
• Rated value (DC)	24 V
• Reverse polarity protection	Yes
Input current	
from load voltage L+ (without load), max.	160 mA
from backplane bus 5 V DC, max.	85 mA
Power loss	
Power loss, typ.	3 W
Digital outputs	
Number of digital outputs	4
Short-circuit protection	Yes; Electronic
• Response threshold, typ.	Output current with short-circuit protection, min. 20.5 mA + 10 %
Load resistance range	
• upper limit	200 Ω; Two-wire connection
Output voltage	
• Rated value (DC)	15 V
Output current	
• for signal "1" permissible range for 0 to 60 °C, max.	20 mA
Switching frequency	
• with resistive load, max.	100 Hz
Cable length	
• unshielded, max.	200 m
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Diagnoses	
• Diagnostic information readable	Yes
• Short-circuit	Yes
Diagnostics indication LED	
• Group error SF (red)	Yes
• Status indicator digital output (green)	Yes
• Channel fault indicator F (red)	Yes
Ex(i) characteristics	
Module for Ex(i) protection	Yes
maximum values for connecting terminals for gas group IIC	
• U ₀ (no-load voltage), max.	15.75 V

• Io (short-circuit current), max.	85 mA
• Po (power output), max.	335 mW
• Co (permissible external capacity), max.	500 nF
• Lo (permissible external inductivity), max.	5 mH

Potential separation

Potential separation digital outputs	
• between the channels	Yes; 60 V DC/30 V AC when used in the hazardous area; 400 V DC/250 V AC when used in NON-hazardous area
• between the channels, in groups of	1
• between the channels and backplane bus	Yes; 60 V DC/30 V AC when used in the hazardous area; 400 V DC/250 V AC when used in NON-hazardous area
• Between the channels and load voltage L+	Yes; 60 V DC/30 V AC when used in the hazardous area; 400 V DC/250 V AC when used in NON-hazardous area

Standards, approvals, certificates

Use in hazardous areas	
• Type of protection acc. to EN 50020 (CENELEC)	[EEx ib] IIC
• Type of protection acc. to FM	AIS CL.1, DIV 1, GP A, B, C, D; CL.I, DIV 2, GP A, B, C, D T4
• Test number PTB	Ex-96.D.2102X

Ambient conditions

Ambient temperature during operation	
• max.	60 °C

Connection method

required front connector	20-pin
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Dimensions

Width	40 mm
Height	125 mm
Depth	120 mm

Weights

Weight, approx.	230 g
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last modified: 3/16/2021 