



Figure similar

\*\*\*\*\* spare part \*\*\*\*\* SIMATIC S7, digital output SM 322, isolated, 4 DO; 24 V DC, 10 mA, 1 x 20-pole, for signals from the hazardous area, diagnostics-capable, PTB tested

Supply voltage	
Load voltage L+	
<ul style="list-style-type: none"> <li>Rated value (DC)</li> </ul>	24 V
<ul style="list-style-type: none"> <li>Reverse polarity protection</li> </ul>	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
<ul style="list-style-type: none"> <li>Response threshold, typ.</li> </ul>	Output current with short-circuit protection, min. 10 mA + 10 %
Load resistance range	
<ul style="list-style-type: none"> <li>upper limit</li> </ul>	390 Ω; Two-wire connection
Output voltage	
<ul style="list-style-type: none"> <li>Rated value (DC)</li> </ul>	24 V
Output current	
<ul style="list-style-type: none"> <li>for signal "1" permissible range for 0 to 60 °C, max.</li> </ul>	10 mA; ±10 %
Switching frequency	
<ul style="list-style-type: none"> <li>with resistive load, max.</li> </ul>	100 Hz
Cable length	
<ul style="list-style-type: none"> <li>unshielded, max.</li> </ul>	200 m
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Diagnoses	
<ul style="list-style-type: none"> <li>Diagnostic information readable</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Short-circuit</li> </ul>	Yes
Diagnostics indication LED	
<ul style="list-style-type: none"> <li>Group error SF (red)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Status indicator digital output (green)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>Channel fault indicator F (red)</li> </ul>	Yes
Ex(i) characteristics	
Module for Ex(i) protection	Yes
maximum values for connecting terminals for gas group IIC	
<ul style="list-style-type: none"> <li>U<sub>o</sub> (no-load voltage), max.</li> </ul>	25.2 V
<ul style="list-style-type: none"> <li>I<sub>o</sub> (short-circuit current), max.</li> </ul>	70 mA
<ul style="list-style-type: none"> <li>P<sub>o</sub> (power output), max.</li> </ul>	440 mW

- Co (permissible external capacity), max. 90 nF
- Lo (permissible external inductivity), max. 6.7 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	
• ATEX marking	[EEx ib] IIC
• FM marking	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.2093X

### 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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### Classifications

	Version	Classification
eClass	14	27-24-22-04
eClass	12	27-24-22-04
eClass	9.1	27-24-22-04
eClass	9	27-24-22-04
eClass	8	27-24-22-04
eClass	7.1	27-24-22-04
eClass	6	27-24-22-04
ETIM	10	EC001419
ETIM	9	EC001419
ETIM	8	EC001419
ETIM	7	EC001419
IDEA	4	3566
UNSPSC	15	32-15-17-05

### Approvals / Certificates

#### General Product Approval



[Manufacturer Declaration](#)

[Miscellaneous](#)



#### General Product Approval For use in hazardous locations

[China RoHS](#)

[Manufacturer Declaration](#)

[Miscellaneous](#)



[FM](#)

For use in hazardous locations



[CCC-Ex](#)



[NK / Nippon Kaiji Kyokai](#)

Maritime application



last modified:

4/7/2025