

spare part SIPLUS S7-300 SM 322 16 DO 24 V DC based on 6ES7322-8BH10-0AB0 with conformal coating, -25...+70 °C, digital output SM 322, 16 DO; 24 V DC/0.5 A, diagnostics-capable, open-circuit detection with 0 and 1 signal, 1x 40-pole, connection IM 153-X HF required



Figure similar

General information	
based on	6ES7322-8BH10-0AB0
Supply voltage	
Load voltage L+	
<ul style="list-style-type: none"> Rated value (DC) 	24 V
<ul style="list-style-type: none"> permissible range, lower limit (DC) 	20.4 V
<ul style="list-style-type: none"> permissible range, upper limit (DC) 	28.8 V
Input current	
from load voltage L+ (without load), max.	88 mA
from backplane bus 5 V DC, max.	80 mA
Power loss	
Power loss, typ.	5.7 W
Digital outputs	
Number of digital outputs	16
Short-circuit protection	Yes
<ul style="list-style-type: none"> Response threshold, typ. 	1.4 A; per channel
Limitation of inductive shutdown voltage to	L+ (-68 V)
Switching capacity of the outputs	
<ul style="list-style-type: none"> on lamp load, max. 	5 W
Load resistance range	
<ul style="list-style-type: none"> lower limit 	48 Ω
<ul style="list-style-type: none"> upper limit 	4 kΩ
Output voltage	
<ul style="list-style-type: none"> for signal "1", min. 	L+ (-0.7 V)
Output current	
<ul style="list-style-type: none"> for signal "1" rated value 	0.5 A
<ul style="list-style-type: none"> for signal "1" permissible range, min. 	5 mA
<ul style="list-style-type: none"> for signal "1" permissible range, max. 	0.6 A
<ul style="list-style-type: none"> for signal "0" residual current, max. 	0.7 mA
Output delay with resistive load	
<ul style="list-style-type: none"> "0" to "1", max. 	3 ms
<ul style="list-style-type: none"> "1" to "0", max. 	3 ms
Parallel switching of two outputs	
<ul style="list-style-type: none"> for uprating 	No
<ul style="list-style-type: none"> for redundant control of a load 	Yes
Switching frequency	
<ul style="list-style-type: none"> with resistive load, max. 	100 Hz
<ul style="list-style-type: none"> with inductive load (acc. to IEC 60947-5-1, DC13), max. 	2 Hz

• on lamp load, max.	10 Hz
Total current of the outputs (per group)	
horizontal installation	
— up to 60 °C, max.	2 A
— up to 70 °C, max.	0.5 A
vertical installation	
— up to 40 °C, max.	2 A
Cable length	
• shielded, max.	1 000 m
• unshielded, max.	600 m
Interrupts/diagnostics/status information	
Alarms	Yes
Diagnostics function	Yes
Alarms	
• Diagnostic alarm	Yes
Diagnoses	
• Diagnostic information readable	Yes
• Wire break	Yes
• Short-circuit	Yes
• missing load voltage	Yes
Diagnostics indication LED	
• Rated load voltage PWR (green)	No
• Group error SF (red)	Yes
• Status indicator digital output (green)	Yes
• Channel fault indicator F (red)	Yes
Potential separation	
Potential separation digital outputs	
• between the channels	No
• between the channels, in groups of	4
• between the channels and backplane bus	Yes
• between the channels and the power supply of the electronics	No
Isolation	
Isolation tested with	500 V DC
Standards, approvals, certificates	
CE mark	Yes
Ambient conditions	
Ambient temperature during operation	
• min.	-25 °C; = Tmin
• max.	70 °C; = Tmax; @ 60°C for UL/ATEX/FM use
Altitude during operation relating to sea level	
• Installation altitude above sea level, max.	5 000 m
• Ambient air temperature-barometric pressure-altitude	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)
Relative humidity	
• With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)
Resistance	
Use in stationary industrial systems	
— to biologically active substances according to EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
— to chemically active substances according to EN 60721-3-3	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
— to mechanically active substances according to EN 60721-3-3	Yes; Class 3S4 incl. sand, dust, *
Use on ships/at sea	
— to biologically active substances according to EN 60721-3-6	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request
— to chemically active substances according to EN 60721-3-6	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *

— to mechanically active substances according to EN 60721-3-6

Yes; Class 6S3 incl. sand, dust; *

Usage in industrial process technology

— Against chemically active substances acc. to EN 60654-4

Yes; Class 3 (excluding trichlorethylene)

— Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04

Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)

Remark

— Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04

* The supplied plug covers must remain in place over the unused interfaces during operation!

Connection method

required front connector

1x 40-pin

Dimensions

Width

40 mm

Height

125 mm

Depth

120 mm

Weights

Weight, approx.

350 g

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

EMV



EG-Konf.

[Manufacturer Declaration](#)



[China RoHS](#)



EMV

For use in hazardous locations



RCM



IECEX



ATEX

[CCC-Ex](#)

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