SIEMENS

Data sheet



SIPLUS S7-1500 DQ 16x48VUC/125V based on 6ES7522-5EH00-0AB0 with conformal coating, -40...+70 °C, digital output module, 16 channels in groups of 1; 0.5 A per group; substitute value; observe derating

Figure similar

General information	
Product type designation	DQ 16x24 48 V UC/125 V DC/0.5 A ST
Product function	
I&M data	Yes; I&M0 to I&M3
 Prioritized startup 	Yes
Operating mode	
• DQ	Yes
• MSO	Yes
output voltage / header	
Rated value (DC)	24 V; 48 V, 125 V
Rated value (AC)	24 V; 48 V (50 - 60 Hz)
Power	
Power available from the backplane bus	2 W
Power loss	
Power loss, typ.	3.8 W
Digital outputs	
Type of digital output	Transistor
Number of digital outputs	16
Current-sinking	Yes
Current-sourcing	Yes
Digital outputs, parameterizable	Yes
Limitation of inductive shutdown voltage to	200 V (suppressor diode)
Controlling a digital input	Yes
Switching capacity of the outputs	
 with resistive load, max. 	0.5 A
● on lamp load, max.	40 W; At 125 V DC, 10 W at 48 V UC, 5 W at 24 V UC
Output voltage	
● for signal "1", min.	L+ (-1.0 V)
Output current	
for signal "1" rated value	0.5 A
• for signal "1" permissible range, max.	0.6 A
Output delay with resistive load	
• "0" to "1", max.	5 ms
• "1" to "0", max.	5 ms
Parallel switching of two outputs	
• for logic links	Yes
for uprating	No
for redundant control of a load	Yes
Switching frequency	
with resistive load, max.	25 Hz

with inductive load, max.	0.5 Hz
on lamp load, max.	10 Hz
Total current of the outputs	10 ΠΖ
Current per channel, max.	0.5 A
Current per group, max.	0.5 A
Current per module, max.	8 A
Cable length	
• shielded, max.	1 000 m
• unshielded, max.	600 m
Interrupts/diagnostics/status information	
Substitute values connectable	Yes
Diagnostics indication LED	
• RUN LED	Yes; green LED
• ERROR LED	Yes; red LED
 Channel status display 	Yes; green LED
 for module diagnostics 	Yes; red LED
Potential separation	
Potential separation channels	
between the channels	Yes
 between the channels, in groups of 	1
 between the channels and backplane bus 	Yes
Permissible potential difference	
between different circuits	125 V DC/48 V AC
Isolation	
Isolation tested with	1 200 V DC
Standards, approvals, certificates	
Suitable for safety functions	No
Ambient conditions	
Ambient temperature during operation	
horizontal installation, min.	-40 °C; = Tmin (incl. condensation/frost)
 horizontal installation, max. 	70 °C; = Tmax; > +60 °C max. 0.25 A per output
Altitude during operation relating to sea level	
Installation altitude above sea level, max.	2 000 m
 Ambient air temperature-barometric pressure- 	Tmin Tmax at 1 140 hPa 795 hPa (-1 000 m +2 000 m)
altitude	
Relative humidity	400 0/ 1011 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
 With condensation, tested in accordance with IEC 60068-2-38, max. 	100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation
Resistance	otato), nonzonta motanaton
Coolants and lubricants	
Resistant to commercially available coolants	Yes; Incl. diesel and oil droplets in the air
and lubricants	.,
Use in stationary industrial systems	
— to biologically active substances according to	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of
EN 60721-3-3	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	Yes; Class 3S4 incl. sand, dust, *
EN 60721-3-3	,
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	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52
EN 60721-3-6	(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,	Yes; Level GX group A/B (excluding trichlorethylene; harmful gas
measuring and control systems acc. to ANSI/ISA-71.04	concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)
Remark	Jo (out op. a), a love Ebo (oil)
Note regarding classification of environmental	* The supplied plug covers must remain in place over the unused
conditions acc. to EN 60721, EN 60654-4 and	interfaces during operation!

ANSI/ISA-71.04	
Conformal coating	
 Coatings for printed circuit board assemblies acc. to EN 61086 	Yes; Class 2 for high reliability
 Protection against fouling acc. to EN 60664-3 	Yes; Type 1 protection
 Military testing according to MIL-I-46058C, Amendment 7 	Yes; Discoloration of coating possible during service life
 Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A 	Yes; Conformal coating, Class A
Dimensions	
Width	35 mm
Height	147 mm
Depth	129 mm
Weights	
Weight, approx.	230 g
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