SIEMENS

Product data sheet 6ES7222-1BH32-0XB0

SIMATIC S7-1200, DIGITAL OUTPUT SM 1222, 16 DO, 24V DC, TRANSISTOR 0.5A

permissible range, lower limit (DC) 20.4 V permissible range, upper limit (DC) 28.8 V Input current from backplane bus 5 V DC, max. 140 mA Power losses Power loss, typ. 2.5 W Digital inputs Number of digital inputs 0 Digital outputs Number of digital outputs 16 In groups of 1 Short-circuit protection No; to be provided externally Limitation of inductive shutdown voltage to typ. (L+) -48 V Switching capacity of the outputs with resistive load, max. 0.5 A on lamp load, max. 5.W Output voltage Rated value (DC) 24 V for signal "0", max. 0.1 V; with 10 kOhm load for signal "1" rated value 0.5 A for signal "1" rated value 0.5 A for signal "0" residual current, max. 10 µA Output delay with resistive load "0" to "1", max. 50 µs -"1" to "0", max. 50 µs -"1" to "0", max. 50 µs Aggregate current of outputs (per group) horizontal installation up to 50 °C, max. 8 A; Current per mass Relay outputs		
permissible range, upper limit (DC) Input current from backplane bus 5 V DC, max. Power loss, typ. 2.5 W Digital inputs Number of digital inputs 0 Digital outputs In groups of Short-circuit protection Limitation of inductive shutdown voltage to Switching capacity of the outputs with resistive load, max. on lamp load, max. Output voltage Rated value (DC) for signal "0", max. for signal "1", min. Output current for signal "1" rated value for signal "1" residual current, max. Output delay with resistive load "0" to "1", max. Aggregate current of outputs (per group) horizontal installation up to 50 "C, max. 8 A; Current per mass	Supply voltage	
Input current from backplane bus 5 V DC, max. Power losses Power loss, typ. 2.5 W Digital inputs Number of digital inputs 0 Digital outputs Number of digital outputs In groups of Short-circuit protection In groups of Short-circuit protection No : to be provided externally Limitation of inductive shutdown voltage to Switching capacity of the outputs with resistive load, max. 0.5 A on lamp load, max. 5 W Output voltage Rated value (DC) for signal "1" max. for signal "1" rated value for signal "1" rated value for signal "1" rated value 0.5 A Output delay with resistive load "0" to "1", max. 50 µs "1" to "0", max. Aggregate current of outputs (per group) horizontal installation up to 50 °C, max. 8 A; Current per mass	permissible range, lower limit (DC)	20.4 V
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Power losses Power loss, typ. 2.5 W Digital inputs Number of digital inputs 0 Digital outputs Number of digital outputs 16 In groups of 1 Short-circuit protection No ; to be provided externally Limitation of inductive shutdown voltage to typ. (L+) -48 V Switching capacity of the outputs with resistive load, max. 0.5 A on lamp load, max. 5 W Output voltage Rated value (DC) 24 V for signal "0", max. 0.1 V; with 10 kOhm load for signal "1", min. 20 V DC Output current for signal "1" rated value 0.5 A for signal "0" residual current, max. 10 µA Output delay with resistive load "0" to "1", max. 50 µs "1" to "0", max. 200 µs Aggregate current of outputs (per group) horizontal installation up to 50 °C, max. 8 A; Current per mass	Input current	
Power loss, typ. 2.5 W Digital inputs Number of digital inputs 0 Digital outputs Number of digital outputs 16 In groups of 1 Short-circuit protection No; to be provided externally 19. (L+) -48 V Switching capacity of the outputs 17. As W Switching capacity of the outputs 18. With resistive load, max. 0.5 A On lamp load, max. 5. W Output voltage Rated value (DC) 24 V for signal "0", max. 0.1 V; with 10 kOhm load 19. V Companies 19	from backplane bus 5 V DC, max.	140 mA
Number of digital inputs Number of digital inputs 0	Power losses	
Number of digital inputs Digital outputs Number of digital outputs 16 In groups of Short-circuit protection Limitation of inductive shutdown voltage to Switching capacity of the outputs with resistive load, max. Output voltage Rated value (DC) for signal "0", max. for signal "1", min. Output current for signal "1" rated value for signal "0" residual current, max. Output delay with resistive load "0" to "1", max. \$0.5 A \$0.1 V ; with 10 kOhm load for signal "0" residual current, max. 10 µA Output delay with resistive load "0" to "1", max. \$0 µs Aggregate current of outputs (per group) horizontal installation up to 50 °C, max. 8 A ; Current per mass	Power loss, typ.	2.5 W
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Number of digital outputs In groups of Short-circuit protection No : to be provided externally Limitation of inductive shutdown voltage to Switching capacity of the outputs with resistive load, max. on lamp load, max. 5 W Output voltage Rated value (DC) for signal "0", max. 0.1 V ; with 10 kOhm load for signal "1", min. 20 V DC Output current for signal "1" rated value 0.5 A for signal "0" residual current, max. 10 µA Output delay with resistive load "0" to "1", max. 50 µs "1" to "0", max. Aggregate current of outputs (per group) horizontal installation up to 50 °C, max. 8 A : Current per mass	Number of digital inputs	0
In groups of Short-circuit protection No; to be provided externally Limitation of inductive shutdown voltage to typ. (L+) -48 V Switching capacity of the outputs with resistive load, max. 0.5 A on lamp load, max. Output voltage Rated value (DC) for signal "0", max. 0.1 V; with 10 kOhm load for signal "1", min. 20 V DC Output current for signal "1" rated value for signal "0" residual current, max. 10 µA Output delay with resistive load "0" to "1", max. 50 µs "1" to "0", max. Aggregate current of outputs (per group) horizontal installation up to 50 °C, max. 8 A; Current per mass	Digital outputs	
Short-circuit protection Limitation of inductive shutdown voltage to typ. (L+) -48 V Switching capacity of the outputs with resistive load, max. 0.5 A on lamp load, max. 5 W Output voltage Rated value (DC) for signal "0", max. 0.1 V; with 10 kOhm load for signal "1", min. 20 V DC Output current for signal "0" residual current, max. 10 μA Output delay with resistive load "0" to "1", max. 50 μs "1" to "0", max. 200 μs Aggregate current of outputs (per group) horizontal installation up to 50 °C, max. 8 A; Current per mass	Number of digital outputs	16
Limitation of inductive shutdown voltage to Switching capacity of the outputs with resistive load, max. 0.5 A on lamp load, max. 5 W Output voltage Rated value (DC) for signal "0", max. 0.1 V; with 10 kOhm load for signal "1", min. 20 V DC Output current for signal "1" rated value 0.5 A for signal "0" residual current, max. 10 µA Output delay with resistive load "0" to "1", max. 50 µs "1" to "0", max. 200 µs Aggregate current of outputs (per group) horizontal installation up to 50 °C, max. 8 A; Current per mass	In groups of	1
Switching capacity of the outputs with resistive load, max. on lamp load, max. 5 W Output voltage Rated value (DC) for signal "0", max. for signal "1", min. 20 V DC Output current for signal "1" rated value for signal "0" residual current, max. 10 µA Output delay with resistive load "0" to "1", max. 50 µs "1" to "0", max. Aggregate current of outputs (per group) horizontal installation up to 50 °C, max. 8 A; Current per mass	Short-circuit protection	No ; to be provided externally
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on lamp load, max. Output voltage Rated value (DC) for signal "0", max. 0.1 V; with 10 kOhm load for signal "1", min. 20 V DC Output current for signal "1" rated value for signal "0" residual current, max. 10 µA Output delay with resistive load "0" to "1", max. 50 µs "1" to "0", max. 200 µs Aggregate current of outputs (per group) horizontal installation up to 50 °C, max. 8 A; Current per mass	Switching capacity of the outputs	
Output voltage Rated value (DC) 24 V for signal "0", max. 0.1 V; with 10 kOhm load for signal "1", min. 20 V DC Output current for signal "1" rated value for signal "0" residual current, max. 10 μA Output delay with resistive load "0" to "1", max. "1" to "0", max. 200 μs Aggregate current of outputs (per group) horizontal installation up to 50 °C, max. 8 A; Current per mass	with resistive load, max.	0.5 A
Rated value (DC) for signal "0", max. 0.1 V; with 10 kOhm load for signal "1", min. 20 V DC Output current for signal "1" rated value for signal "0" residual current, max. 10 µA Output delay with resistive load "0" to "1", max. 50 µs "1" to "0", max. 200 µs Aggregate current of outputs (per group) horizontal installation up to 50 °C, max. 8 A; Current per mass	on lamp load, max.	5 W
for signal "0", max. for signal "1", min. 20 V DC Output current for signal "1" rated value for signal "0" residual current, max. 10 µA Output delay with resistive load "0" to "1", max. "1" to "0", max. Aggregate current of outputs (per group) horizontal installation up to 50 °C, max. 0.1 V; with 10 kOhm load 0.5 A 50 V DC 0.5 A 10 µA 20 V DC 0.5 A 50 µS 8 A; Current per mass	Output voltage	
for signal "1", min. Output current for signal "1" rated value for signal "0" residual current, max. Output delay with resistive load "0" to "1", max. 50 µs "1" to "0", max. Aggregate current of outputs (per group) horizontal installation up to 50 °C, max. 8 A ; Current per mass	Rated value (DC)	24 V
Output current for signal "1" rated value for signal "0" residual current, max. Output delay with resistive load "0" to "1", max. 50 μs "1" to "0", max. Aggregate current of outputs (per group) horizontal installation up to 50 °C, max. 8 A; Current per mass	for signal "0", max.	0.1 V ; with 10 kOhm load
for signal "1" rated value for signal "0" residual current, max. 10 μA Output delay with resistive load "0" to "1", max. "1" to "0", max. Aggregate current of outputs (per group) horizontal installation up to 50 °C, max. 8 A; Current per mass	for signal "1", min.	20 V DC
for signal "0" residual current, max. Output delay with resistive load "0" to "1", max. "1" to "0", max. Aggregate current of outputs (per group) horizontal installation up to 50 °C, max. 10 μA 50 μs 200 μs 8 A ; Current per mass	Output current	
Output delay with resistive load "0" to "1", max. 50 µs "1" to "0", max. 200 µs Aggregate current of outputs (per group) horizontal installation up to 50 °C, max. 8 A ; Current per mass	for signal "1" rated value	0.5 A
"0" to "1", max. "1" to "0", max. Aggregate current of outputs (per group) horizontal installation up to 50 °C, max. 8 A ; Current per mass	for signal "0" residual current, max.	10 μΑ
"1" to "0", max. Aggregate current of outputs (per group) horizontal installation up to 50 °C, max. 8 A ; Current per mass	Output delay with resistive load	
Aggregate current of outputs (per group) horizontal installation up to 50 °C, max. 8 A ; Current per mass	"0" to "1", max.	50 µs
horizontal installation up to 50 °C, max. 8 A ; Current per mass	"1" to "0", max.	200 μs
up to 50 °C, max. 8 A ; Current per mass	Aggregate current of outputs (per group)	
	horizontal installation	
Relay outputs	up to 50 °C, max.	8 A; Current per mass
	Relay outputs	

Switching capacity of contacts	
with inductive load, max.	0.5 A
on lamp load, max.	5 W
with resistive load, max.	0.5 A
Cable length	
Cable length, shielded, max.	500 m
Cable length unshielded, max.	150 m
Interrupts/diagnostics/status information	
Alarms	
Alarms	Yes
Diagnostic alarm	Yes
Diagnostic messages	
Diagnostic functions	Yes
Monitoring the supply voltage	Yes
Diagnostics indication LED	
For status of the outputs	Yes
for maintenance	Yes
Status indicator digital output (green)	Yes
Galvanic isolation	
Galvanic isolation digital outputs	
between the channels, in groups of	1
between the channels and the backplane bus	500 V AC
Degree and class of protection	
IP20	Yes
Standards, approvals, certificates	
CE mark	Yes
CSA approval	Yes
UL	Yes
cULus	Yes
RCM (former C-TICK)	Yes
FM approval	Yes
Marine approval	Voc
Marine approval	Yes
Climatic and mechanical conditions for storage and transport Climatic conditions for storage and transport	
Free fall	0.2 m : five times in dispetch peoples
Drop height, max. (in packaging)	0.3 m; five times, in dispatch package
Temperature	

Permissible temperature range	-40 °C to +70 °C
Air pressure acc. to IEC 60068-2-13	
Permissible air pressure	1080 to 660 hPa
Relative humidity	
Permissible range (without condensation) at 25 °C	95 %
Mechanical and climatic conditions during operation	
Climatic conditions in operation	
Temperature	
Permissible temperature range	-20 °C to +60 °C horizontal mounting, -20 °C to 50 °C vertical mounting, 95% humidity, non-condensing
Min.	-20 °C
max.	60 °C
Permissible temperature change	5°C to 55°C, 3°C / minute
Connection method	
required front connector	Yes
Mechanics/material	
Type of housing (front)	
Plastic	Yes
Dimensions	
Width	45 mm
Height	100 mm
Depth	75 mm
Weights	
Weight, approx.	220 g
Status	Jun 19, 2014