SIEMENS

Data sheet

6ES7142-6BF50-0AB0



SIMATIC DP, ET 200ECO PN, 8 DO 24 V DC/0.5 A; 4xM12, Duplicate assignment, 1 load voltage supply DO; Degree of protection IP67

Figure similar

Vendor identification (VendorID) Device identifier (DeviceID) Supply voltage Rated value (DC) Reverse polarity protection power supply according to NEC Class 2 required Load voltage 1L+ Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Reverse polarity protection Permissible range, upper limit (DC) Reverse polarity protection Ves Load voltage 2L+ Rated value (DC) Rated value (DC) Permissible range, lower limit (DC) Rated value (DC) Permissible range, lower limit (DC) Permissible range, lower limit (DC) Permissible range, lower limit (DC)	
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 Rated value (DC) permissible range, lower limit (DC) 24 V 20.4 V 	
• permissible range, lower limit (DC) 20.4 V	
• permissible range, upper limit (DC) 28.8 V	
Reverse polarity protection Yes	
Input current	
Current consumption, typ. 100 mA	
from supply voltage 1L+, max. 4 A	
from load voltage 1L+ (unswitched voltage) 100 mA	
from load voltage 2L+, max. 4 A	
Power loss	
Power loss, typ. 3 W	
Digital outputs	
Number of digital outputs 8	
• in groups of 8	
Short-circuit protection Yes	
• Response threshold, typ. 0.7 A	
Limitation of inductive shutdown voltage to Typ. (L1+, L2+) -47 V	
Controlling a digital input Yes	
Switching capacity of the outputs	
• on lamp load, max. 5 W	
Output current	
• for signal "1" rated value 0.5 A	
• for signal "0" residual current, max. 1.5 mA	
Parallel switching of two outputs	
• for uprating No	

 for redundant control of a load 	Yes
Switching frequency	
with resistive load, max.	100 Hz
with inductive load, max.	0.5 Hz
 on lamp load, max. 	1 Hz
Total current of the outputs (per group)	
all mounting positions	
— up to 60 °C, max.	4 A
Cable length	
• unshielded, max.	30 m
Interfaces	
Transmission procedure	100BASE-TX
Number of PROFINET interfaces	1
1. Interface	
Interface types	
integrated switch	Yes
Interface types	
M12 port	
Autonegotiation	Yes
Autocrossing	Yes
Transmission rate, max.	100 Mbit/s
Protocols	
Supports protocol for PROFINET IO	Yes
PROFINET CBA	No
PROFIsafe	No
PROFINET IO Device	
Services	
IRT with the option "high flexibility"	Yes
Prioritized startup	Yes
Redundancy mode	
Media redundancy	
— MRP	Yes
Open IE communication	
• TCP/IP	No
• SNMP	Yes
• DCP	Yes
• LLDP	Yes
• ping	Yes
• ARP	Yes
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
Diagnostic alarm	Yes
Diagnoses	
Diagnostic information readable	Yes
Monitoring the supply voltage	Yes; green "ON" LED
Wire-break in actuator cable	Yes
Short-circuit	Yes
Group error	Yes; Red/yellow "SF/MT" LED
Potential separation	
between the load voltages	Yes
between load voltage and all other switching components	No
between Ethernet and electronics	Yes
Potential separation channels	
between the channels	No
Isolation	
tested with	
24 V DC circuits	707 V DC (type test)
Test voltage for interface, rms value [Vrms]	707 V DC (type test) 1 500 V; According to IEEE 802.3
• rest voltage for interface, this value [vfffis]	1 JUU V, ACCORDING TO TEEE OUZ.3

IP65/67		
Standards, approvals, certificates		
Yes		
Highest safety class achievable for safety-related tripping of standard modules		
PL d		
Cat. 3		
SIL 2		
connection method / header		
4/5-pin M12 circular connectors		
Dimensions		
30 mm		
200 mm		
49 mm		
Weights		
550 g		

3/7/2022

last modified: