SIEMENS

Data sheet

6ES7142-6BF00-0AB0



SIMATIC DP, ET 200ECO PN, 8 DO 24 V DC/1.3 A; 4xM12, Duplicate assignment, Degree of protection IP67

Figure	simi	ar
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General information	
Vendor identification (VendorID)	002AH
Device identifier (DeviceID)	0306H
Supply voltage	
Rated value (DC)	24 V
Reverse polarity protection	Yes
power supply according to NEC Class 2 required	Yes
Load voltage 1L+	
Rated value (DC)	24 V
 permissible range, lower limit (DC) 	20.4 V
 permissible range, upper limit (DC) 	28.8 V
 Reverse polarity protection 	Yes
Load voltage 2L+	
Rated value (DC)	24 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)	4 A
from load voltage 2L+, max.	4 A
Power loss	
Power loss, typ.	5.5 W
Digital outputs	
Number of digital outputs	8
• in groups of	4
Short-circuit protection	Yes
Response threshold, typ.	1.8 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 	1.3 A; Maximum
 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 55 °C, max.	3.9 A
— up to 60 °C, max.	2.6 A
Cable length	
• unshielded, max.	30 m
Interfaces	
Transmission procedure	100BASE-TX
Number of PROFINET interfaces	1
	1
1. Interface	
Interface types	
M12 port	Yes
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	100
Media redundancy	
— MRP	Vee
	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
	No
between load voltage and all other switching components	
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] 	1 500 V; According to IEEE 802.3

Degree and class of protection		
IP degree of protection	IP65/67	
Standards, approvals, certificates		
Suitable for safety-related tripping of standard modules	Yes	
Highest safety class achievable for safety-related tripping of standard modules		
 Performance level according to ISO 13849-1 	PL d	
 Category according to ISO 13849-1 	Cat. 3	
• SIL acc. to IEC 62061	SIL 2	
 remark on safety-oriented shutdown 	https://support.industry.siemens.com/cs/de/en/view/39198632	
connection method		
Design of electrical connection	4/5-pin M12 circular connectors	
Dimensions		
Width	30 mm	
Height	200 mm	
Depth	49 mm	
Weights		
Weight, approx.	550 g	
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