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

General information	
Vendor identification (VendorID)	002AH
Device identifier (DeviceID)	0306H
Supply voltage	
Rated value (DC)	24 V
Reverse polarity protection	Yes
Load voltage 2L+	
 Rated value (DC) 	24 V
 Reverse polarity protection 	Yes
Input current	
	100 mA
Current consumption, typ.	
from supply voltage 1L+, max.	4 A
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
	5 **
Output current	0.5 A
• for signal "1" rated value	
• 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	
	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	
Diagnostic messages		
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	No	
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	IP67	
Standards, approvals, certificates		
Suitable for safety-related tripping of standard	Yes	
modules		
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	

SILCL according to IEC 62061	SILCL 2
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
last modified:	06/09/2020