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 similar

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. Interface	
Interface types	
• M12 port	Yes
• integrated switch	Yes
Interface types	100
M12 port	Von
Autoregating	Yes
Autocrossing Transmission rate may	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	Yes
Redundancy mode Media redundancy	
Redundancy mode Media redundancy — MRP	Yes
Redundancy mode Media redundancy	
Redundancy mode Media redundancy — MRP	
Redundancy mode Media redundancy — MRP Open IE communication	Yes
Redundancy mode Media redundancy — MRP Open IE communication • TCP/IP	Yes
Redundancy mode Media redundancy — MRP Open IE communication • TCP/IP • SNMP	Yes No Yes
Redundancy mode Media redundancy — MRP Open IE communication • TCP/IP • SNMP • DCP	Yes No Yes Yes
Redundancy mode Media redundancy — MRP Open IE communication • TCP/IP • SNMP • DCP • LLDP	Yes No Yes Yes Yes
Redundancy mode Media redundancy — MRP Open IE communication • TCP/IP • SNMP • DCP • LLDP • ping	Yes No Yes Yes Yes Yes Yes
Redundancy mode Media redundancy — MRP Open IE communication • TCP/IP • SNMP • DCP • LLDP • ping • ARP	Yes No Yes Yes Yes Yes Yes
Redundancy mode Media redundancy — MRP Open IE communication • TCP/IP • SNMP • DCP • LLDP • ping • ARP Interrupts/diagnostics/status information	Yes No Yes Yes Yes Yes Yes Yes Yes
Redundancy mode Media redundancy — MRP Open IE communication • TCP/IP • SNMP • DCP • LLDP • ping • ARP Interrupts/diagnostics/status information Diagnostics function Alarms	Yes No Yes Yes Yes Yes Yes Yes Yes
Redundancy mode Media redundancy — MRP Open IE communication • TCP/IP • SNMP • DCP • LLDP • ping • ARP Interrupts/diagnostics/status information Diagnostics function	Yes No Yes Yes Yes Yes Yes Yes Yes
Redundancy mode Media redundancy — MRP Open IE communication • TCP/IP • SNMP • DCP • LLDP • ping • ARP Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm	Yes No Yes Yes Yes Yes Yes Yes Yes
Redundancy mode Media redundancy — MRP Open IE communication • TCP/IP • SNMP • DCP • LLDP • ping • ARP Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable	Yes No Yes Yes Yes Yes Yes Yes Yes Yes
Redundancy mode Media redundancy — MRP Open IE communication • TCP/IP • SNMP • DCP • LLDP • ping • ARP Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Monitoring the supply voltage	Yes No Yes
Redundancy mode Media redundancy — MRP Open IE communication • TCP/IP • SNMP • DCP • LLDP • ping • ARP Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Monitoring the supply voltage • Wire-break in actuator cable	Yes No Yes
Redundancy mode Media redundancy — MRP Open IE communication • TCP/IP • SNMP • DCP • LLDP • ping • ARP Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Monitoring the supply voltage • Wire-break in actuator cable • Short-circuit	Yes No Yes
Redundancy mode Media redundancy — MRP Open IE communication	Yes No Yes
Redundancy mode Media redundancy — MRP Open IE communication TCP/IP SNMP SNMP DCP LLDP ping ARP Interrupts/diagnostics/status information Diagnostics function Alarms Diagnostic alarm Diagnoses Diagnostic information readable Monitoring the supply voltage Wire-break in actuator cable Short-circuit Group error Potential separation	Yes No Yes
Redundancy mode Media redundancy — MRP Open IE communication • TCP/IP • SNMP • DCP • LLDP • ping • ARP Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Monitoring the supply voltage • Wire-break in actuator cable • Short-circuit • Group error Potential separation between the load voltages	Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes
Redundancy mode Media redundancy — MRP Open IE communication • TCP/IP • SNMP • DCP • LLDP • ping • ARP Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Monitoring the supply voltage • Wire-break in actuator cable • Short-circuit • Group error Potential separation between the load voltages between load voltages and all other switching components	Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes
Redundancy mode Media redundancy — MRP Open IE communication • TCP/IP • SNMP • DCP • LLDP • ping • ARP Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Monitoring the supply voltage • Wire-break in actuator cable • Short-circuit • Group error Potential separation between load voltages between load voltage and all other switching components between Ethernet and electronics	Yes No Yes
Redundancy mode Media redundancy — MRP Open IE communication TCP/IP SNMP DCP LLDP ping ARP Interrupts/diagnostics/status information Diagnostics function Alarms Diagnostic alarm Diagnoses Diagnostic information readable Monitoring the supply voltage Wire-break in actuator cable Short-circuit Group error Potential separation between the load voltages between load voltage and all other switching components between Ethernet and electronics Potential separation channels	Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes
Redundancy mode Media redundancy — MRP Open IE communication • TCP/IP • SNMP • DCP • LLDP • ping • ARP Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Monitoring the supply voltage • Wire-break in actuator cable • Short-circuit • Group error Potential separation between the load voltages between load voltage and all other switching components between Ethernet and electronics Potential separation channels • between the channels	Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes
Redundancy mode Media redundancy — MRP Open IE communication • TCP/IP • SNMP • DCP • LLDP • ping • ARP Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Monitoring the supply voltage • Wire-break in actuator cable • Short-circuit • Group error Potential separation between the load voltages between load voltage and all other switching components between Ethernet and electronics Potential separation channels • between the channels Isolation	Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes
Redundancy mode Media redundancy — MRP Open IE communication • TCP/IP • SNMP • DCP • LLDP • ping • ARP Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Monitoring the supply voltage • Wire-break in actuator cable • Short-circuit • Group error Potential separation between the load voltages between load voltage and all other switching components between Ethernet and electronics Potential separation channels • between the channels Isolation tested with	Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes
Redundancy mode Media redundancy — MRP Open IE communication • TCP/IP • SNMP • DCP • LLDP • ping • ARP Interrupts/diagnostics/status information Diagnostics function Alarms • Diagnostic alarm Diagnoses • Diagnostic information readable • Monitoring the supply voltage • Wire-break in actuator cable • Short-circuit • Group error Potential separation between the load voltages between load voltage and all other switching components between Ethernet and electronics Potential separation channels • between the channels Isolation	Yes No Yes Yes Yes Yes Yes Yes Yes Yes Yes

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	

last modified:

8/16/2023

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Siemens:

6ES71426BF000AB0