SIEMENS

Data sheet



SIPLUS S7-300 SM 326F DI24 40-pole based on 6ES7326-1BK02-0AB0 with conformal coating, -25...+60 °C, 70° with forced convection, digital input F-DI 24x24 V DC fail-safe digital input for SIMATIC S7 F-systems with diagnostic alarm

Figure similar

Supply voltage	
Rated value (DC)	24 V
Input current	
from load voltage L+ (without load), max.	450 mA
from backplane bus 5 V DC, max.	100 mA
Encoder supply	
Number of outputs	4; Isolated
Output current	
Rated value	400 mA
Power loss	
Power loss, typ.	10 W
Digital inputs	
Number of digital inputs	24
Number of simultaneously controllable inputs	
all mounting positions	
— up to 40 °C, max.	24
— up to 60 °C, max.	24; (at 24 V) or 18 (at 28.8 V)
Input voltage	
 Type of input voltage 	DC
 Rated value (DC) 	24 V
● for signal "0"	-30 to +5 V
● for signal "1"	+11 to +30V
Input current	
for signal "0", max. (permissible quiescent current)	2 mA
● for signal "1", typ.	10 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— at "0" to "1", max.	3.4 ms
— at "1" to "0", max.	3.4 ms
Cable length	
shielded, max.	200 m
• unshielded, max.	100 m
Encoder	
Connectable encoders	
• 2-wire sensor	Yes; if short-circuit test is deactivated
 permissible quiescent current (2-wire sensor), max. 	2 mA
Interrupts/diagnostics/status information	

Alarms	
Diagnostic alarm	Yes
Diagnoses	
Diagnostic information readable	Yes
Diagnostics indication LED	
Fail-safe operation	Yes
Group error SF (red)	Yes
Potential separation	
Potential separation digital inputs	
between the channels	Yes
 between the channels, in groups of 	12
 between the channels and backplane bus 	Yes
Isolation	
Isolation tested with	500 V DC/350 V AC
Standards, approvals, certificates	
CE mark	Yes
UL approval	Yes; File E239877
RCM (formerly C-TICK)	Yes
KC approval	Yes
EAC (formerly Gost-R)	Yes
Highest safety class achievable in safety mode	
• acc. to DIN VDE 0801	AK 6
• acc. to EN 954	Cat. 4
Performance level according to ISO 13849-1	e
SIL acc. to IEC 61508	SIL 3
Ambient conditions	
Ambient temperature during operation	
• min.	-25 °C; = Tmin
• max.	60 °C; = Tmax; *+70 °C where forced convection with a minimum air
	velocity of 0.7 m/s through the modules and rated voltage of 24 V $\pm 5~\%$
	are ensured. If in the course of maintenance or automatic diagnosis it is determined that the admissible specified parameters have been
	exceeded, the modules should be subjected to a proof test (function
	check) by the manufacturer.
Altitude during operation relating to sea level	
 Installation altitude above sea level, max. 	2 000 m
Ambient air temperature-barometric pressure-	Tmin Tmax at 1 140 hPa 795 hPa (-1 000 m +2 000 m)
altitude	
Relative humidity	400 0/ . Dilling and anotion/fract (no commissioning under
 With condensation, tested in accordance with IEC 60068-2-38, max. 	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)
Resistance	
Use in stationary industrial systems	
to biologically active substances according to	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of
EN 60721-3-3	fauna); Class 3B3 on request
to chemically active substances according to	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52
EN 60721-3-3	(severity degree 3); *
 to mechanically active substances according to EN 60721-3-3 	Yes; Class 3S4 incl. sand, dust, *
Use on ships/at sea	
to biologically active substances according to	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on
EN 60721-3-6	request
 to chemically active substances according to EN 60721-3-6 	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
— to mechanically active substances according to	Yes; Class 6S3 incl. sand, dust; *
EN 60721-3-6	
EN 60721-3-6 Usage in industrial process technology	
	Yes; Class 3 (excluding trichlorethylene)
Usage in industrial process technology — Against chemically active substances acc. to	
Usage in industrial process technology — Against chemically active substances acc. to EN 60654-4 — Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-	Yes; Class 3 (excluding trichlorethylene) Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible);
Usage in industrial process technology — Against chemically active substances acc. to EN 60654-4 — Environmental conditions for process, measuring and control systems acc. to ANSI/ISA- 71.04	Yes; Class 3 (excluding trichlorethylene) Yes; Level GX group A/B (excluding trichlorethylene; harmful gas
Usage in industrial process technology — Against chemically active substances acc. to EN 60654-4 — Environmental conditions for process, measuring and control systems acc. to ANSI/ISA- 71.04 Remark	Yes; Class 3 (excluding trichlorethylene) Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)
Usage in industrial process technology — Against chemically active substances acc. to EN 60654-4 — Environmental conditions for process, measuring and control systems acc. to ANSI/ISA- 71.04	Yes; Class 3 (excluding trichlorethylene) Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible);

connection method / header	
40-pin	
80 mm	
125 mm	
120 mm	
Weights	
442 g	

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