

SIEMENS

Product data sheet

6AG1223-1BL30-2XB0



SIPLUS S7-1200 SM1223 16DI/16DO -25 ... +70 DEGREES C WITH CONFORMAL COATING BASED ON 6ES7223-1BL30-0XB0 . DIGITAL I/O 16DI / 16DO, 16DI DC 24 V, SINK/SOURCE, 16DO, TRANSISTOR 0.5A

Supply voltage	
24 V DC	Yes
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V
Input current	
from backplane bus 5 V DC, max.	185 mA
Digital inputs	
from load voltage L+ (without load), max.	4 mA ; per channel
Output voltage	
Power supply to the transmitters	
present	Yes
Power losses	
Power loss, typ.	4.5 W
Digital inputs	
Number/binary inputs	16

In groups of	2
Input characteristic curve acc. to IEC 61131, Type 1	Yes
Number of simultaneously controllable inputs	
all mounting positions	
up to 40 °C, max.	16
horizontal installation	
up to 40 °C, max.	16
up to 50 °C, max.	16
vertical installation	
up to 40 °C, max.	16
Input voltage	
Type of input voltage	DC
Rated value, DC	24 V
for signal "0"	5 V DC at 1 mA
for signal "1"	15 V DC at 2.5 mA
Input current	
for signal "0", max. (permissible quiescent current)	1 mA
for signal "1", min.	2.5 mA
for signal "1", typ.	4 mA ; Typical
Input delay (for rated value of input voltage)	
for standard inputs	
Parameterizable	Yes ; 0.2, 0.4, 0.8, 1.6, 3.2, 6.4, and 12.8 ms, selectable in groups of four
for interrupt inputs	
Parameterizable	Yes
Cable length	
Cable length, shielded, max.	500 m
Cable length unshielded, max.	300 m
Digital outputs	
Number/binary outputs	16
In groups of	1
Functionality/short-circuit strength	No ; to be provided externally
Limitation of inductive shutdown voltage to	L+ (-48 V)
Switching capacity of the outputs	

with resistive load, max.	0.5 A
on lamp load, max.	5 W
Output voltage	
Rated value (DC)	24 V
for signal "0", max.	0.1 V ; with 10 kOhm load
for signal "1", min.	20 V DC
Output current	
for signal "1" permissible range, max.	0.5 A
for signal "0" residual current, max.	10 µA
Output delay with resistive load	
"0" to "1", max.	50 µs
"1" to "0", max.	200 µs
Aggregate current of outputs (per group)	
horizontal installation	
up to 50 °C, max.	8 A ; Current per mass
Relay outputs	
Switching capacity of contacts	
with inductive load, max.	0.5 A
on lamp load, max.	5 W
Switching frequency/contacts/at ohmic load/maximum	0.5 A
Cable length	
Cable length, shielded, max.	500 m
Cable length unshielded, max.	150 m
Interrupts/diagnostics/status information	
Alarms	
Alarms	Yes
Diagnostic alarm	Yes
Diagnostic messages	
Diagnostic functions	Yes
Monitoring the supply voltage	Yes
Diagnostics indication LED	
for status of the inputs	Yes
For status of the outputs	Yes

for maintenance	Yes
Status indicator digital output (green)	Yes
Status indicator digital input (green)	Yes
Galvanic isolation	
Galvanic isolation digital inputs	
between the channels, in groups of	2
Galvanic isolation digital outputs	
between the channels, in groups of	1
between the channels and the backplane bus	500 V AC
Degree and class of protection	
IP20	Yes
Standards, approvals, certificates	
CE mark	Yes
cULus	Yes
FM approval	Yes
Ambient conditions	
Extended ambient conditions	
Relative to ambient temperature-atmospheric pressure-installation altitude	Tmin ... Tmax at 1080 hPa ... 795 hPa (-1000 m ... +2000 m) // Tmin ... (Tmax - 10K) at 795 hPa ... 658 hPa (+2000 m ... +3500 m) // Tmin ... (Tmax - 20K) at 658 hPa ... 540 hPa (+3500 m ... +5000 m)
Relative humidity	
with condensation / maximum	100 % ; Relative humidity, incl. condensation / frost permitted (no commissioning under condensation conditions)
Resistance	
to biologically active substances / conformity with EN 60721-3-3	Yes ; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna). The supplied connector covers must remain on the unused interfaces during operation!
to chemically active substances / conformity with EN 60721-3-3	Yes
to mechanically active substances / conformity with EN 60721-3-3	Yes ; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!
Climatic and mechanical conditions for storage and transport	

Climatic conditions for storage and transport	
Free fall	
Drop height, max. (in packaging)	0.3 m ; five times, in dispatch package
Temperature	
Permissible temperature range	-40 °C to +70 °C
Mechanical and climatic conditions during operation	
Climatic conditions in operation	
Temperature	
Min.	-25 °C ; = Tmin
max.	70 °C ; = Tmax
Connection method	
required front connector	Yes
Mechanics/material	
Type of housing (front)	
Plastic	Yes
Dimensions	
Width	70 mm
Height	100 mm
Depth	75 mm
Weight	
Weight, approx.	310 g
Status	Jul 17, 2012