



SIPLUS ET 200SP DI 8x24 V DC SRC BA based on 6ES7131-6BF61-0AA0 with conformal coating, -40...+70 °C, digital input module, suitable for BU type A0, color code CC02, source input, (NPN, sourcing input) input type 1 (IEC 61131), input delay 0.05..20 ms module diagnostics for: supply voltage

General information	
Product type designation	DI 8x24 VDC SRC BA
Firmware version	
• FW update possible	No
based on	6ES7131-6BF61-0AA0
usable BaseUnits	BU type A0
Color code for module-specific color-coded label	CC02
Product function	
• I&M data	Yes; I&M0 to I&M3
• Isochronous mode	No
• suitable for operation on PROFINET R1 IMs	Yes
Engineering with	
• STEP 7 TIA Portal configurable/integrated from version	see entry ID: 109746275
Operating mode	
• DI	Yes
• Counter	No
• Oversampling	No
• MSI	No
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
Reverse polarity protection	Yes
Input current	
Current consumption (rated value)	4.5 mA
Current consumption, max.	53 mA
Encoder supply	
Short-circuit protection	No
Power loss	
Power loss, typ.	1.5 W
Address area	
Address space per module	
• Inputs	1 byte
Hardware configuration	
Automatic encoding	Yes
• Type of mechanical coding element	type B
Selection of BaseUnit for connection variants	
• 1-wire connection	BU type A0
• 2-wire connection	BU type A0

<ul style="list-style-type: none"> • 3-wire connection • 4-wire connection 	BU type A0 with AUX terminals or potential distributor module BU type A0 + Potential distributor module
Digital inputs	
Number of digital inputs	8
Digital inputs, parameterizable	Yes
Sourcing/sinking input	Sourcing
Input characteristic curve in accordance with IEC 61131, type 1	Yes
Input voltage	
<ul style="list-style-type: none"> • Rated value (DC) • for signal "0" • for signal "1" 	24 V 30 V to -5 V (reference potential is L+) -11 V to -30 V (reference potential is L+)
Input current	
<ul style="list-style-type: none"> • for signal "1", typ. 	6 mA
Input delay (for rated value of input voltage)	
for standard inputs	
<ul style="list-style-type: none"> — parameterizable — at "0" to "1", min. — at "0" to "1", max. — at "1" to "0", min. — at "1" to "0", max. 	Yes; 0.05 / 0.1 / 0.4 / 0.8 / 1.6 / 3.2 / 12.8 / 20 ms (in each case + delay of 30 to 500 µs, depending on line length) 0.05 ms 20 ms 0.05 ms 20 ms
Cable length	
<ul style="list-style-type: none"> • shielded, max. • unshielded, max. 	1 000 m 200 m
Encoder	
Connectable encoders	
<ul style="list-style-type: none"> • 2-wire sensor — permissible quiescent current (2-wire sensor), max. 	Yes 1.5 mA
Interrupts/diagnostics/status information	
Diagnostics function	Yes
Alarms	
<ul style="list-style-type: none"> • Diagnostic alarm 	Yes
Diagnoses	
<ul style="list-style-type: none"> • Diagnostic information readable • Monitoring the supply voltage — parameterizable • Monitoring of encoder power supply • Wire break • Short-circuit 	Yes Yes Yes No No No
Diagnostics indication LED	
<ul style="list-style-type: none"> • Monitoring of the supply voltage (PWR-LED) • Channel status display • for channel diagnostics • for module diagnostics 	Yes; green PWR LED Yes; green LED No Yes; green/red DIAG LED
Potential separation	
Potential separation channels	
<ul style="list-style-type: none"> • between the channels • between the channels and backplane bus • between the channels and the power supply of the electronics 	No Yes No
Isolation	
Isolation tested with	707 V DC (type test)
Standards, approvals, certificates	
Suitable for safety functions	No
Ecological footprint	
<ul style="list-style-type: none"> • environmental product declaration 	Yes
Global warming potential	
<ul style="list-style-type: none"> — global warming potential, (total) [CO2 eq] — global warming potential, (during production) [CO2] 	15.9 kg 3.69 kg

eq]	
— global warming potential, (during operation) [CO2 eq]	12.7 kg
— global warming potential, (after end of life cycle) [CO2 eq]	-0.495 kg

Ambient conditions

Ambient temperature during operation	
• horizontal installation, min.	-40 °C; = Tmin (incl. condensation/frost)
• horizontal installation, max.	70 °C; = Tmax
• vertical installation, min.	-40 °C; = Tmin
• vertical installation, max.	50 °C; = Tmax

Altitude during operation relating to sea level	
• Installation altitude above sea level, max.	5 000 m
• Ambient air temperature-barometric pressure-altitude	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)

Relative humidity	
• With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; incl. condensation / frost permitted (no commissioning under condensation conditions)

Resistance	
Coolants and lubricants	

— Resistant to commercially available coolants and lubricants	Yes; Incl. diesel and oil droplets in the air
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Use in stationary industrial systems	
— to biologically active substances according to EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
— to chemically active substances according to EN 60721-3-3	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
— to mechanically active substances according to EN 60721-3-3	Yes; Class 3S4 incl. sand, dust, *
— Against mechanical environmental conditions acc. to EN 60721-3-3	Yes; Class 3M8 using the SIPLUS Mounting Kit ET 200SP (6AG1193-6AA00-0AA0)

Use on ships/at sea	
— to biologically active substances according to EN 60721-3-6	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on 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 EN 60721-3-6	Yes; Class 6S3 incl. sand, dust; *
— Against mechanical environmental conditions acc. to EN 60721-3-6	Yes; Class 6M4 using the SIPLUS Mounting Kit ET 200SP (6AG1193-6AA00-0AA0)

Usage in industrial process technology	
— Against chemically active substances acc. to EN 60654-4	Yes; Class 3 (excluding trichlorethylene)
— Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04	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)

Remark	
— Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04	* The supplied plug covers must remain in place over the unused interfaces during operation!

Conformal coating	
• Coatings for printed circuit board assemblies acc. to EN 61086	Yes; Class 2 for high reliability
• Protection against fouling acc. to EN 60664-3	Yes; Type 1 protection
• Military testing according to MIL-I-46058C, Amendment 7	Yes; Discoloration of coating possible during service life
• Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A	Yes; Conformal coating, Class A

Dimensions	
Width	15 mm
Height	73 mm
Depth	58 mm

Weights	
Weight, approx.	28 g

Classifications

	Version	Classification
eClass	14	27-24-26-04
eClass	12	27-24-26-04
eClass	9.1	27-24-26-04
eClass	9	27-24-26-04
eClass	8	27-24-26-04
eClass	7.1	27-24-26-04
eClass	6	27-24-26-04
ETIM	10	EC001599
ETIM	9	EC001599
ETIM	8	EC001599
ETIM	7	EC001599
IDEA	4	3566
UNSPSC	15	32-15-17-05

Approvals / Certificates

General Product Approval

[Manufacturer Declaration](#)

[China RoHS](#)



General Product Approval

EMV

For use in hazardous locations

Maritime application

[China RoHS](#)



[CCC-Ex](#)



Environment



last modified:

10/23/2025