

SIPLUS ET 200MP -40...+60°C with conformal coating based on 6ES7155-5BA00-0AB0 . PROFIBUS connection IM 155-5 DP ST for max. 12 S7-1500 modules



General information

Product type designation	IM 155-5 DP ST
HW functional status	01
Firmware version	V2.0.0
Vendor identification (VendorID)	81AAh

Product function

- I&M data Yes; I&M0 to I&M3

Engineering with

- STEP 7 TIA Portal configurable/integrated as of version V13 / V13
- STEP 7 configurable/integrated as of version V5.5 SP3 / -
- PROFIBUS as of GSD version/GSD revision V1.0 / V5.1

Supply voltage

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

Mains buffering

- Mains/voltage failure stored energy time 5 ms

Input current	
Current consumption (rated value)	0.2 A; at 24 V DC and without load
Current consumption, max.	1.2 A; at 20.4 V DC and max. load
Inrush current, max.	4 A
I^2t	0.09 A ² ·s
from interface 5 V DC, max.	80 mA
Power	
Infeed power to the backplane bus	14 W
Power loss	
Power loss, typ.	4 W; Typical
Address area	
Address space per module	
• Address space per module, max.	128 byte; per input / output
Address space per station	
• Address space per station, max.	244 byte; per input / output
Hardware configuration	
System power supply can be plugged in to left of IM	No
Number of permissible power segments	1
Rack	
• Modules per rack, max.	12; I/O modules
Interfaces	
Number of PROFIBUS interfaces	1
1. Interface	
Protocols	
• PROFIBUS DP slave	Yes
Interface types	
RS 485	
• Transmission rate, max.	12 Mbit/s
Protocols	
PROFIBUS DP	
Services	
— SYNC capability	Yes
— FREEZE capability	Yes
— DPV1	Yes
Interrupts/diagnostics/status information	
Status indicator	Yes
Alarms	Yes
Diagnostics function	Yes
Diagnostics indication LED	

- RUN LED Yes; Green LED
- ERROR LED Yes; Red LED
- MAINT LED Yes; Yellow LED

Potential separation

between backplane bus and electronics	No
between PROFIBUS DP and all other circuit components	Yes
between supply and all other circuits	No

Permissible potential difference

between different circuits	75 V DC/60 V AC
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Isolation

Isolation tested with	707 V DC (type test)
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Ambient conditions

Ambient temperature during operation	
<ul style="list-style-type: none"> • horizontal installation, min. • horizontal installation, max. 	-40 °C; = Tmin (incl. condensation/frost); start-up @ -25 °C 60 °C; = Tmax

Altitude during operation relating to sea level	
<ul style="list-style-type: none"> • Ambient air temperature-barometric pressure-altitude 	Tmin ... Tmax at 1 080 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	
<ul style="list-style-type: none"> • With condensation, tested in accordance with IEC 60068-2-38, max. 	100 %; RH incl. condensation / frost (no commissioning in bedewed state), horizontal installation

Resistance	
Coolants and lubricants	
— Resistant to commercially available coolants and lubricants	Yes; Incl. diesel and oil droplets in the air

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 according to EN 60068-2-52 (degree of severity 3). The supplied connector covers must remain on the unused interfaces during operation!
— to mechanically active substances according to EN 60721-3-3	Yes; Class 3S4 incl. sand, dust. The supplied connector covers must remain on the unused interfaces during operation!

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; *

Usage in industrial process technology	
— Against chemically active substances acc. to EN 60654-4	Yes
— Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04	Yes
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	
<ul style="list-style-type: none"> • Coatings for printed circuit board assemblies acc. to EN 61086 • Protection against fouling acc. to EN 60664-3 • Military testing according to MIL-I-46058C, Amendment 7 • Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A 	<p>Yes; Class 2 for high availability</p> <p>Yes; Type 1 protection</p> <p>Yes; Discoloration of coating possible during service life</p> <p>Yes; Conformal coating, Class A</p>
Dimensions	
Width	35 mm
Height	147 mm
Depth	129 mm
Weights	
Weight, approx.	360 g
last modified:	08/15/2019