



Figure similar

SIPLUS ET 200S IM 151 HF based on 6ES7151-1BA02-0AB0 with conformal coating, -25...+60 °C,

General information

Product type designation	IM 151-1 HF
Product function	
• Isochronous mode	Yes

Supply voltage

Mains buffering	
• Mains/voltage failure stored energy time	20 ms

Input current

from supply voltage 1L+, max.	200 mA
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Power loss

Power loss, typ.	3.3 W
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Address area

Addressing volume	
• Inputs	244 byte
• Outputs	244 byte

Interfaces

Interfaces/bus type	PROFIBUS DP
Transmission procedure	RS 485
Transmission rate, max.	12 Mbit/s

1. Interface

Interface types	
• RS 485	Yes
• Design of the connection	9-pin sub D socket

Protocols

Supports protocol for PROFINET IO	No
PROFIBUS DP	Yes

PROFIBUS DP

Services	
— SYNC capability	Yes
— FREEZE capability	Yes
— Direct data exchange (slave-to-slave communication)	Yes

Interrupts/diagnostics/status information

Alarms	Yes
Diagnostics function	Yes
Diagnostics indication LED	
• Bus fault BF (red)	Yes
• Group error SF (red)	Yes
• Monitoring 24 V voltage supply ON (green)	Yes

Potential separation	
between backplane bus and electronics	No
between electronic block and PROFIBUS DP	Yes
between supply voltage and electronics	No
Isolation	
Isolation tested with	500 V DC
Standards, approvals, certificates	
CE mark	Yes
UL approval	Yes
Ambient conditions	
Ambient temperature during operation	
• min.	-25 °C; = Tmin
• max.	60 °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 %; RH incl. condensation/frost permitted (no commissioning in bedewed state)
Resistance	
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, *
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; 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!
Dimensions	
Width	45 mm
Height	119.5 mm
Depth	75 mm
Weights	
Weight, approx.	150 g
last modified:	
3/11/2021 	