## **SIEMENS**

## **Data sheet**

## 6AG1138-4FA05-2AB0



SIPLUS ET 200S EM F-DI 24V PROFIsafe based on 6ES7138-4FA05-0AB0 with conformal coating, -25...+60 °C, electronic module for ET 200S, 4/8 F-DI PROFIsafe, 24 V DC, 30 mm overall width, up to category 4 (EN 954-1)/ SIL3 (IEC 61508)/PLE (ISO 13849), can also be used in PROFINET configuration with IM 151-3 HF

Figure similar

Supply voltage	
Rated value (DC)	24 V
Encoder supply	
Number of outputs	2
Type of output voltage	min. L+ (-1.5 V)
Short-circuit protection	Yes; Electronic (response threshold 0.7 A to 1.8 A)
Output current	
Rated value	300 mA
<ul> <li>permissible range, lower limit</li> </ul>	0 mA
<ul> <li>permissible range, upper limit</li> </ul>	300 mA
Power loss	
Power loss, typ.	4 W
Address area	
Address space per module	
<ul><li>Inputs</li></ul>	6 byte
<ul> <li>Outputs</li> </ul>	4 byte
Digital inputs	
Number of digital inputs	8; 8 (one-channel); 4 (two-channel)
Input characteristic curve in accordance with IEC 61131, type 1	Yes
Input voltage	
<ul> <li>Type of input voltage</li> </ul>	DC
Rated value (DC)	24 V
Input current	
● for signal "1", typ.	3.7 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— parameterizable	Yes
— at "0" to "1", min.	0.3 ms
— at "0" to "1", max.	17 ms
— at "1" to "0", min.	0.3 ms
— at "1" to "0", max.	17 ms
Cable length	
• shielded, max.	500 m
• unshielded, max.	500 m
Encoder	
Connectable encoders	
• 2-wire sensor	No
— permissible quiescent current (2-wire sensor), max.	0.6 mA; max.
Interrupts/diagnostics/status information	

Diagnostics function	Yes
Alarms	V
Diagnostic alarm	Yes
Diagnoses	V
Diagnostic information readable	Yes
Short-circuit	Yes
Diagnostics indication LED	v.
Group error SF (red)	Yes
Status indicator digital input (green)	Yes
Potential separation	
Potential separation digital inputs	
<ul> <li>between the channels</li> </ul>	No
<ul> <li>between the channels and backplane bus</li> </ul>	Yes
Between the channels and load voltage L+	No
Standards, approvals, certificates	
Highest safety class achievable in safety mode	
• acc. to EN 954	4
<ul> <li>Performance level according to ISO 13849-1</li> </ul>	PLe
SIL acc. to IEC 61508	SIL 2 (single-channel), SIL 3 (two-channel)
Ambient conditions	
Ambient temperature during operation	
• min.	-25 °C
• max.	60 °C
Altitude during operation relating to sea level	
Installation altitude above sea level, max.	2 000 m
Ambient air temperature-barometric pressure-altitude	Tmin Tmax at 1 140 hPa 795 hPa (-1 000 m +2 000 m)
Relative humidity	
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	
<ul> <li>to biologically active substances according to EN 60721-3-3</li> </ul>	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
<ul> <li>to chemically active substances according to EN 60721-3-3</li> </ul>	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); $^{\star}$
<ul> <li>to mechanically active substances according to EN 60721-3-3</li> </ul>	Yes; Class 3S4 incl. sand, dust, *
Use on ships/at sea	
<ul> <li>to biologically active substances according to EN 60721-3-6</li> </ul>	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request
<ul> <li>to chemically active substances according to EN 60721-3-6</li> </ul>	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity
***=***	degree 3); *
<ul> <li>to mechanically active substances according to EN 60721-3-6</li> </ul>	degree 3); * Yes; Class 6S3 incl. sand, dust; *
— to mechanically active substances according to EN 60721-3-6  Usage in industrial process technology	Yes; Class 6S3 incl. sand, dust; *
— to mechanically active substances according to EN 60721-3-6  Usage in industrial process technology      — Against chemically active substances acc. to EN 60654-4	Yes; Class 6S3 incl. sand, dust; *  Yes; Class 3 (excluding trichlorethylene)
— to mechanically active substances according to EN 60721-3-6  Usage in industrial process technology  — Against chemically active substances acc. to EN	Yes; Class 6S3 incl. sand, dust; *
— to mechanically active substances according to EN 60721-3-6  Usage in industrial process technology  — Against chemically active substances acc. to EN 60654-4  — Environmental conditions for process, measuring	Yes; Class 6S3 incl. sand, dust; *  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
— to mechanically active substances according to EN 60721-3-6  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 6S3 incl. sand, dust; *  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
— to mechanically active substances according to EN 60721-3-6  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  — Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and	Yes; Class 6S3 incl. sand, dust; *  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)  * The supplied plug covers must remain in place over the unused interfaces
— to mechanically active substances according to EN 60721-3-6  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  — Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04	Yes; Class 6S3 incl. sand, dust; *  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)  * The supplied plug covers must remain in place over the unused interfaces
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— to mechanically active substances according to EN 60721-3-6  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  — Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04  Dimensions  Width  Height  Depth  Weights	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)  * The supplied plug covers must remain in place over the unused interfaces during operation!  30 mm  81 mm  52 mm
to mechanically active substances according to EN 60721-3-6  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 Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04  Dimensions  Width Height Depth	Yes; Class 6S3 incl. sand, dust; *  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)  * The supplied plug covers must remain in place over the unused interfaces during operation!