SIEMENS

Data sheet

6AG1688-3AY36-2AX0



SIPLUS HMI KP8 PN based on 6AV3688-3AY36-0AX0 with conformal coating, -40...+60 $^{\circ}\text{C}$, start up -25 $^{\circ}\text{C}$,

Figure similar

General information		
Product type designation	KP8 PN	
Control elements		
With parameterizable keys	Yes	
Keyboard fonts		
Membrane keyboard		
 user-definable label membrane keys 	Yes	
Function keys		
 Number of function keys 	8	
Short-stroke keys		
Number of short-stroke keys	8	
Expansions for operator control of the process		
DP direct LEDs (LEDs as S7 output I/O)	8; Adjustable brightness	
Number of color modes for LED	5; red, green, blue, yellow, white	
Direct keys (keys as S7 input I/O)	8	
Installation type/mounting		
Mounting type	Clamp terminals	
Mounting position	vertical	
Rack mounting	No	
Front mounting	Yes; Compatible with Extension Units dimensions	
Rail mounting	No	
Wall mounting/direct mounting	No	
Mounting in portrait format possible	Yes	
Mounting in landscape format possible	Yes	
maximum permissible angle of inclination without external ventilation	30°; To the front/rear	
Number of slots for command devices and signaling units	0	
Supply voltage		
Type of supply voltage	DC	
Rated value (DC)	24 V; 24 V looped through at connector, no interruption on pulling	
permissible range, lower limit (DC)	20.4 V	
permissible range, upper limit (DC)	28.8 V	
Input current		
Current consumption (rated value)	0.3 A	
Type of output		
LED colors		
• red	Yes	
• yellow	Yes	
• green	Yes	
• white	Yes	

• blue	Yes
Digital inputs	
Number of digital inputs	8; Max. 8 inputs and outputs (total)
Input voltage	o, max. o mpato ana ocupato (total)
Rated value (DC)	24 V
Digital outputs	
Number of digital outputs	8; Max. 8 inputs and outputs (total)
Short-circuit protection	Yes
Switching capacity of the outputs	
 with resistive load, max. 	100 mA
Output voltage	
Rated value (DC)	24 V; Non-isolated
Total current of the outputs	
Current per channel, max.	100 mA
Current per group, max.	800 mA
Interfaces	
Number of industrial Ethernet interfaces	2; For the construction of lines and rings without external switch
Number of PROFINET interfaces	2; Incl. switch
Industrial Ethernet	O. Dannard
Industrial Ethernet status LED Number of parts of the integrated quiteb	2; Per port
Number of ports of the integrated switch	2; Per port
Protocols	Vacuation 2nd north, DLC
PROFINET	Yes; also 3rd party PLC
Supports protocol for PROFINET IO	Yes
PROFINET CBA IRT	No Yes
PROFIsafe	No
PROFIBUS	No
EtherNet/IP	No
MPI	No
AS-Interface	No
EIB/KNX	No
Protocols (Ethernet)	
• TCP/IP	No
Redundancy mode	
Media redundancy	
— MRP	Yes
Further protocols	Nie
AS-Interface Safety at WorkCAN	No No
Data-Highway	No
DeviceNet	No
DeviceNet Safety	No
Foundation Fieldbus	No
• INTERBUS	No
INTERBUS-Safety	No
 Local Operating Network 	No
• MODBUS	No
 SafetyBUS p 	No
• SERCOS	No
• SUCOnet	No
other bus systems	No
Test commissioning functions	
Illuminant test	Yes; During switch on
Key and signal lamp test	Yes; automatically when switching on
EMC	
Emission of radio interference acc. to EN 55 011	
 Limit class A, for use in industrial areas 	Yes; Group 1, measured at a distance of 10 m
Limit class B, for use in residential areas	No
Degree and class of protection	
IP (at the front)	IP65
IP (rear)	IP20

NEMA (front)	
NEMA (front) • Enclosure Type 4 at the front	No
Enclosure Type 4x at the front Enclosure Type 4x at the front	Yes; Incl. NEMA12
Standards, approvals, certificates	100, 110 (12.17) (12
Suitable for safety functions	No
Ambient conditions	
Ambient temperature during operation	
• min.	-40 °C; = Tmin; Startup @ -25 °C
• max.	60 °C; = Tmax
Operation (vertical installation)	
For vertical installation, min.	-40 °C; = Tmin; Startup @ -25 °C
— For vertical installation, max.	60 °C; = Tmax
Operation (max. tilt angle) — At maximum tilt angle, min.	40 °C: - Tmin: Startup @ 25 °C
— At maximum tilt angle, min. — At maximum tilt angle, max.	-40 °C; = Tmin; Startup @ -25 °C 45 °C; = Tmax
Operation (vertical installation, portrait format)	
— For vertical installation, min.	-40 °C; = Tmin; Startup @ -25 °C
 For vertical installation, max. 	60 °C; = Tmax
Operation (max. tilt angle, portrait format)	
— At maximum tilt angle, min.	-40 °C; = Tmin; Startup @ -25 °C
— At maximum tilt angle, max.	45 °C; = Tmax
Ambient temperature during storage/transportation	25 °C
	-25 °C 80 °C
Altitude during operation relating to sea level	00 C
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 (no commissioning under condensation conditions)
Resistance Coolants and lubricants	
Resistant to commercially available coolants	Yes; Incl. diesel and oil droplets in the air
and lubricants	,
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	Von Class 6D2 mold and firmed angree (avaluation former) Class 6D2
to biologically active substances according to EN 60721-3-6 to chemically active substances according to	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request Yes: Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52
to chemically active substances according to EN 60721-3-6 to mechanically active substances according to	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); * Yes: Class 6S3 incl. sand. dust: *
— to mechanically active substances according to EN 60721-3-6	Yes; Class 6S3 incl. sand, dust; *
Usage in industrial process technology	Van Class 2 (avaluding hij-blass that are
— 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	* The complication account
 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 	Yes; Conformal coating, Class A

Insulating Compound for Printed Board Assemblies according to IPC-CC-830A	
configuration / header	
Configuration software	
STEP 7 Basic (TIA Portal)	Yes
STEP 7 Professional (TIA Portal)	Yes
Functionality under WinCC (TIA Portal)	103
Process coupling	
• S7-1200	Yes; with ET 200pro CPU and ET 200S CPU
• S7-1500	Yes
• S7-200	No
• S7-300/400	Yes; STEP 7 or SIMATIC STEP 7 Basic V11 or higher
• LOGO!	No
WinAC	Yes
SINUMERIK	No
• SIMOTION	No
Allen Bradley (EtherNet/IP)	No
Allen Bradley (DF1)	No
Mitsubishi (MC TCP/IP)	No
Mitsubishi (FX)	No
OMRON (FINS TCP)	No
OMRON (LINK/Multilink)	No
Modicon (Modbus TCP/IP)	No
Modicon (Modbus)	No
Mechanics/material	
Enclosure material (front)	
Plastic	Yes
Aluminum	No
Stainless steel	No
Service life	
 Short-stroke keys (in switching cycles) 	1 500 000
 LEDs (ON period) 	100 %
Dimensions	
Width of the housing front	98 mm
Height of housing front	155 mm
Mounting cutout, width	68 mm; Max. thickness of mounting plate 2 - 6 mm
Mounting cutout, height	129 mm
Overall depth	49 mm; Incl. angled SIMATIC Ethernet connector
Weights	

last modified:

Weight (without packaging)

270 g