Data sheet

SIPLUS HMI KP8 PN -25...+60°C with conformal coating based on 6 AV 3688-3 AY 36-0 AX 0



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	30°; To the front/rear
external ventilation	
Number of slots for command devices and signaling	0
units	
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	
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	
Industrial Ethernet status LED	2; Per port
 Number of ports of the integrated switch 	2; Per port

Protocols	
PROFINET	Yes; also 3rd party PLC
Supports protocol for PROFINET IO	Yes
PROFINET CBA	No
IRT	Yes
PROFIsafe	No
PROFIBUS	No
MPI	No
AS-Interface	No
EIB/KNX	No
Protocols (Ethernet)	
• TCP/IP	No
Redundancy mode	
Media redundancy	
— MRP	Yes
Further protocols	
 AS-Interface Safety at Work 	No
• CAN	No
● Data-Highway	No
DeviceNet	No
 DeviceNet Safety 	No
• EtherNet/IP	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

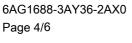


Limit class A, for use in industrial areas	Yes; Group 1, measured at a distance of 10 m
• Limit class B, for use in residential areas	No

Degree and class of protection	
IP (at the front)	IP65
IP (rear)	IP20
NEMA (front)	
 Enclosure Type 4 at the front 	No
 Enclosure Type 4x at the front 	Yes; Incl. NEMA12

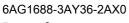
Standards, approvals, certificates	
Suitable for safety functions	No

Standards, approvals, certificates		
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.	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, min.	45 °C; = Tmax	
Ambient temperature during storage/transportation		
• min.	-25 °C	
• max.	80 °C	
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 (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
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!
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
Configuration	
Configuration software	
STEP 7 Basic (TIA Portal)	Yes
STEP 7 Professional (TIA Portal)	Yes
Functionality under WinCC (TIA Portal) Process coupling	



• S7-1200

• S7-1500



Yes

☼ PNAP

Yes; with ET 200pro CPU and ET 200S CPU

• 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	
Weight without packaging	270 g

last modified: 10/13/2020

