

SIPLUS HMI KP8 PN -25...+60°C with conformal coating based on 6AV3688-3AY36-0AX0



Figure similar

General information	
Product type designation	KP8 PN
Control elements	
With parameterizable keys	Yes
Keyboard fonts	
<ul style="list-style-type: none"> • Membrane keyboard <ul style="list-style-type: none"> — user-definable label membrane keys • Function keys <ul style="list-style-type: none"> — Number of function keys • Short-stroke keys <ul style="list-style-type: none"> — Number of short-stroke keys 	<p>Yes</p> <p>8</p> <p>8</p>
Expansions for operator control of the process	
<ul style="list-style-type: none"> • DP direct LEDs (LEDs as S7 output I/O) • Number of color modes for LED • Direct keys (keys as S7 input I/O) 	<p>8; Adjustable brightness</p> <p>5; Red, green, blue, yellow, white</p> <p>8</p>
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
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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)
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Input voltage

• Rated value (DC)	24 V
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Digital outputs

Number of digital outputs	8; Max. 8 inputs and outputs (total)
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Short-circuit protection	Yes
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Switching capacity of the outputs

• with resistive load, max.	100 mA
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Output voltage

• Rated value (DC)	24 V; Non-isolated
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Total current of the outputs

• Current per channel, max.	100 mA
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• Current per group, max.	800 mA
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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	
<ul style="list-style-type: none"> Industrial Ethernet status LED 	2; Per port
<ul style="list-style-type: none"> 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)	
<ul style="list-style-type: none"> TCP/IP 	No
Redundancy mode	
<ul style="list-style-type: none"> MRP 	Yes
Further protocols	
<ul style="list-style-type: none"> AS-Interface Safety at Work CAN Data-Highway DeviceNet DeviceNet Safety EtherNet/IP Foundation Fieldbus INTERBUS INTERBUS-Safety Local Operating Network MODBUS SafetyBUS p SERCOS SUCOnet 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	
<ul style="list-style-type: none"> 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
Enclosure Type 4 at the front	No
Enclosure Type 4x at the front	Yes; Incl. NEMA12
IP (rear)	IP20

Standards, approvals, certificates

Suitable for safety functions	No
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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, max.	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	
• 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	

<ul style="list-style-type: none"> — to biologically active substances according to EN 60721-3-3 — to chemically active substances according to EN 60721-3-3 — to mechanically active substances according to EN 60721-3-3 	<p>Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request</p> <p>Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *</p> <p>Yes; Class 3S4 incl. sand, dust, *</p>
Use on ships/at sea	
<ul style="list-style-type: none"> — to biologically active substances according to EN 60721-3-6 — to chemically active substances according to EN 60721-3-6 — to mechanically active substances according to EN 60721-3-6 	<p>Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request</p> <p>Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *</p> <p>Yes; Class 6S3 incl. sand, dust; *</p>
Usage in industrial process technology	
<ul style="list-style-type: none"> — Against chemically active substances acc. to EN 60654-4 — Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04 	<p>Yes; Class 3 (excluding trichlorethylene)</p> <p>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)</p>
Remark	
<ul style="list-style-type: none"> — Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04 	<p>* The supplied plug covers must remain in place over the unused interfaces during operation!</p>
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>
Configuration	
Configuration software	
<ul style="list-style-type: none"> • STEP 7 Basic (TIA Portal) • STEP 7 Professional (TIA Portal) 	<p>Yes</p> <p>Yes</p>
Functionality under WinCC (TIA Portal)	
Process coupling	
<ul style="list-style-type: none"> • S7-1200 • S7-1500 • S7-200 • S7-300/400 • LOGO! 	<p>Yes; with ET 200pro CPU and ET 200S CPU</p> <p>Yes</p> <p>No</p> <p>Yes; STEP 7 or SIMATIC STEP 7 Basic V11 or higher</p> <p>No</p>

• 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
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last modified: 08/31/2019