SIEMENS

Data sheet

6AV3688-3AY36-0AX0



SIMATIC HMI KP8 PN Key Panel, 8 short-stroke switches with multicolored LEDs, PROFINET interfaces 8 configurable DI/DO pins, 24 V DC can be looped through parameterizable as of STEP 7 V5.5

Product type designation KP8 PN Control elements	General information	
With parameterizable keys Yes Keyboard fonts • • Membrane keyboard -	Product type designation	KP8 PN
Keyboard fonts • • Membrane keyboard	Control elements	
Membrane keyboard user-definable label membrane keys Short-stroke keys Number of short-stroke keys P direct LEDs (LEDs as S7 output I/O) Number of color modes for LED S; red, green, blue, yellow, white Direct keys (keys as S7 input I/O) Number of color modes for LED S; red, green, blue, yellow, white Direct keys (keys as S7 input I/O) Number of color modes for LED S; red, green, blue, yellow, white Direct keys (keys as S7 input I/O) Number of color modes for LED S; red, green, blue, yellow, white Direct keys (keys as S7 input I/O) Number of color modes for LED S; red, green, blue, yellow, white Direct keys (keys as S7 input I/O) Supply for the format possible Yes: Compatible with Extension Units dimensions Rail mounting Ves: Compatible with Extension Units dimensions No Mounting in portrait format possible Yes Mounting in portrait format possible Yes Mounting in landscape format possible Yes Mounting in landscape format possible Yes Mounting of slots for command devices and signaling units O Supply voltage Type of slots for command devices and signaling units Upper current Current consumption (rated value) O: 24 V permissible range, lower limit (DC) 28.8 V Imput current Current consumption (rated value) O: 3A Type of output LED colors ered yellow Yes	With parameterizable keys	Yes
user-definable label membrane keys Yes • Short-stroke keys 8 Expansions for operator control of the process • • DP direct LEDs (LEDs as S7 output I/O) 8; Adjustable brightness • DP direct LEDs (LEDs as S7 output I/O) 8; Adjustable brightness • DP direct keys (keys as S7 input I/O) 8 • Drect keys (keys as S7 input I/O) 8 Installation type/mounting 5; red, green, blue, yellow, white Mounting type Mounting clip Mounting type Mounting clip Mounting type Mounting clip Mounting ing type Mounting clip Mounting ing type No Rack mounting No Rail mounting/direct mounting No Wall mounting/direct mounting No Mounting in portrait format possible Yes Mounting in landscape format possible Yes Mumber of slots for command devices and signaling units 0 Supply voltage DC Rated value (DC) 24 V permissible range, lower limit (DC) 28.8 V Input current Ucrent consumption (rated value) Out Supply voltage 0.3 A Type of output Ucrent consumption (rated value) LED colors Yes	Keyboard fonts	
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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 DC Rated value (DC) 24 V permissible range, lower limit (DC) 20.4 V permissible range, upper limit (DC) 28.8 V Input current 0.3 A Current consumption (rated value) 0.3 A Type of output LED colors e red Yes e low Yes	Rack mounting	No
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permissible range, upper limit (DC) 28.8 V Input current 0.3 A Current consumption (rated value) 0.3 A Type of output LED colors • red Yes • yellow Yes	Rated value (DC)	24 V
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Current consumption (rated value) 0.3 A Type of output LED colors • red Yes • yellow Yes	permissible range, upper limit (DC)	28.8 V
Type of output LED colors • red Yes • yellow Yes	Input current	
LED colors Yes • red Yes • yellow Yes	Current consumption (rated value)	0.3 A
 red Yes yellow Yes 	Type of output	
• yellow Yes	LED colors	
	• red	Yes
• green Yes	• yellow	Yes
	• green	Yes

blue Yes Digital inputs 8: Total inputs and outputs max. 8 and 1x SiL 2 or 2x SiL 3 Input voltage - - Raded value (DC) 24 V Origital outputs 8: Max. 8: inputs and outputs (total) Short-struit protection Yes Switching capacity of the outputs - - with resistive load, max. 100 mA Outputs voltage - - Raded value (DC) 24 V Total current of the outputs - - With resistive load, max. 100 mA Outputs or them outputs - - Current per group, max. 800 mA Mundre of Indeatrial Ethernet Interfaces 2: For the construction of lines and rifugs without external switch Number of ports of the integrated switch 2: For port Protocols - PROFINET Yes; also 3rd party PLC Supports protocol for PROFINET to Press Yes PROFINET Yes PROFINET Yes PROFINET Yes PROFINET Yes PROFINET Yes	• white	Yes
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Number of PROFINET interfaces 2; Incl. switch Industrial Ethernet • Number of ports of the integrated switch 2; Per port Protocols Yes; also 3rd party PLC Supports protocol for PROFINET IO Yes; also 3rd party PLC Supports protocol for PROFINET IO Yes PROFINET CBA No IRT Yes PROFINET CBA No PROFISafe No PROFISafe No PROFISATE No Protocols - • TCP/IP No Redundancy mode - Media redundancy - - MRP Yes Further protocols - • AS-Interface Safety at Work No • DeviceNet No	Interfaces	
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Protocols Yes; also 3rd party PLC Supports protocol for PROFINET IO Yes; also 3rd party PLC Supports protocol for PROFINET IO Yes PROFINET CBA No IRT Yes PROFISITE CBA No PROFISITE No Protocols No EllsKNX No Protocols (Ethernet) No • TCP/IP No Redundancy mode Yes • MRP Yes Further protocols No • AS-Interface Safety at Work No • CAN No • DeviceNet No • INTERBUS No <td< td=""><td>Industrial Ethernet</td><td></td></td<>	Industrial Ethernet	
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Supports protocol for PROFINET IO Yes PROFINET CBA No IRT Yes PROFISafe No PROFISUS No MPI No AS-Interface No EIB/KNX No Protocols (Ethernet) No TOP/IP No Redundancy mode Mo Media redundancy - - MRP Yes Furthers protocols - • AS-Interface Safety at Work No • CAN No • DeviceNet No • DeviceNet Safety No • DeviceNet Safety No • DeviceNet Safety No • EherNetI/P No • Foundation Fieldbus No • INTERBUS No • INTERBUS p No • Local Operating Network No • SafetyBUS p No • SafetyBUS p No • SterCOS No • Ster commissioning functions <	Protocols	
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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 • Data-Highway No • DeviceNet No • DeviceNet Safety No • EtherNet/IP No • EtherNet/IP No • EtherNet/IP No • SafetyBUS No • SafetyBUS No • INTERBUS No • INTERBUS p No • SafetyBUS p No • SafetyBUS p No • SERCOS No • SUCOnet No • Other bus systems No <td>Supports protocol for PROFINET IO</td> <td>Yes</td>	Supports protocol for PROFINET IO	Yes
PROFisafe No PROFIBUS No MPI No AS-Interface No EIB/KNX No Protocols (Ethernet) No • TCP/IP No Redundancy mode Media redundancy MRP Yes Further protocols Volume • CAN No • CAN No • Data-Highway No • DeviceNet No • DeviceNet No • EtherNet/IP No • EtherNet/IP No • EtherNet/IP No • INTERBUS No • INTERBUS No • INTERBUS No • INTERBUS No • SafetyBUS p No • SECOS No • SERCOS No • SUCOnet No • Oberio us systems No • Ether bus systems No • SECOS No • SECOS No <td>PROFINET CBA</td> <td>No</td>	PROFINET CBA	No
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MPI No AS-Interface No EIB/KNX No Protocols (Ethernet)	PROFIsafe	No
AS-Interface No EIB/KNX No Protocols (Ethernet)	PROFIBUS	No
EIB/KNX No Protocols (Ethernet) No Redundancy mode Media redundancy MRP Yes Further protocols No • AS-Interface Safety at Work No • CAN No • Data-Highway No • DeviceNet No • EtherNet/IP No • EtherNet/IP No • INTERBUS No • INTERBUS No • INTERBUS No • Local Operating Network No • SafetyBUS p No • SUCOnet No • SUCOnet No • Other bus systems No • Other bus systems No • Other bus systems Yes; During switch on Key and signal lamp test Yes; automatically when switching on	MPI	No
Protocols (Ethernet) No • TCP/IP No Redundancy mode Media redundancy MRP Yes Further protocols ************************************	AS-Interface	No
• TCP/IP No Redundancy mode Media redundancy MRP Yes Further protocols No • AS-Interface Safety at Work No • CAN No • Data-Highway No • DeviceNet No • DeviceNet No • EtherNet/IP No • Foundation Fieldbus No • INTERBUS No • INTERBUS No • Local Operating Network No • SafetyBUS p No • SERCOS No • SUCOnet No • other bus systems No Test commissioning functions Yes; During switch on Key and signal lamp test Yes; During switch ing on	EIB/KNX	No
Redundancy mode Media redundancy MRP Yes Further protocols Ves Further protocols No • AS-Interface Safety at Work No • CAN No • Data-Highway No • DeviceNet No • DeviceNet Safety No • DeviceNet Safety No • EtherNet/IP No • Foundation Fieldbus No • INTERBUS No • INTERBUS No • INTERBUS No • Local Operating Network No • Local Operating Network No • MODBUS No • SERCOS No • SUCOnet No • other bus systems No Test commissioning functions Yes; During switch on Illuminant test Yes; During switch on Key and signal lamp test Yes; automatically when switching on	Protocols (Ethernet)	
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Key and signal lamp test Yes; automatically when switching on EMC		
EMC		
		Yes; automatically when switching on
Emission of radio interference acc. to EN 55.011	EMC	
	Emission of radio interference acc. to EN 55 011	

Limit class A for use is industrial cross	Very Group 1, measured at a distance of 10 m
 Limit class A, for use in industrial areas Limit class B, for use in residential areas 	Yes; Group 1, measured at a distance of 10 m
• Limit class b, for use in residential areas	No
NEMA (front)	
Enclosure Type 4 at the front	No
Enclosure Type 4 at the front	Yes; Incl. NEMA12
Standards, approvals, certificates	
CE mark	Yes
cULus	Yes
KC approval	Yes
Suitable for safety functions	Yes
Use in hazardous areas	100
ATEX Zone 2	Yes
ATEX Zone 22	Yes
• cULus Class I Zone 1	No
cULus Class I Zone 2, Division 2	Yes
FM Class I Division 2	Yes
Marine approval	
Germanischer Lloyd (GL)	No
American Bureau of Shipping (ABS)	No
• Bureau Veritas (BV)	No
 Det Norske Veritas (DNV) 	No
 Lloyds Register of Shipping (LRS) 	No
 Nippon Kaiji Kyokai (Class NK) 	No
 Polski Rejestr Statkow (PRS) 	No
Ambient conditions	
Ambient temperature during operation	
• min.	0°C
• max.	55 °C
 Operation (vertical installation) 	
— For vertical installation, min.	0°C
 For vertical installation, max. 	55 °C
 Operation (max. tilt angle) 	
— At maximum tilt angle, min.	0°C
— At maximum tilt angle, min.	45 °C
 Operation (vertical installation, portrait format) 	
— For vertical installation, min.	0°C
— For vertical installation, max.	55 °C
 Operation (max. tilt angle, portrait format) 	
— At maximum tilt angle, min.	0° 0
— At maximum tilt angle, min.	45 °C
Ambient temperature during storage/transportation	
• min.	-20 °C
• max.	0° C
Relative humidity	OF V/ : no condenantian
Operation, max.	95 %; no condensation
Configuration	
Configuration software	Vec
STEP 7 Basic (TIA Portal)	Yes
STEP 7 Professional (TIA Portal) Europhics (TIA Portal)	Yes
Functionality under WinCC (TIA Portal)	
Process coupling	
• S7-1200	Yes; with ET 200pro CPU and ET 200S CPU
• S7-1500	Yes
• S7-200	No
• S7-300/400	Yes; with F-CPU: STEP 7 V11 SP1 (or higher) and Safety V11 (or higher) 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	
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	280 g

last modified:

8/10/2020 🖸