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

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	Mounting clip	
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 can be looped through connector, interrupted when pulled	
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	

Digital injusts	• white	Yes
Number of logital inputs Strotal inputs and outputs max. 8 and 1x Sit. 2 or 2x Sit. 3 imput violage		
Number of flogial inputs • Rated value (DC) Diptial eutropius • Rated value (DC) Diptial eutropius Short-circuit protection • With resistive load, max • Unit resis		
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Number of Englistal outputs Short-circuit protection Yes Switching capacity of the outputs • with resistive load, max. Output voitage • Rated value (CC) Catal current of the outputs • Current per channel, max. • Current per channel, max. • Current per group, max. • Current per group max. • Current per group, max. • Current per group max. • Current p		
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* Rated value (DC) Total current of the outputs * Current per channel, max. * Current per group, max. * Boo mA * Interfaces Number of industrial Ethernet interfaces Number of industrial Ethernet interfaces * PROFINET interfaces * Industrial Ethernet status LED * Number of ports of the integrated switch * PROFINET * Supports protocol for PROFINET IO * PROFINET CBA * IRT * PROFISES * No * No * PROFISES * No * No * PROFISES * No * PROFISES * No * No * Deats-Highway * No * Deats-Highway * DeviceNet * Safety Safety * No * Power Power Safety * No * No * ProfiseS * No * INTERBUS * No *		
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Supports protocol for PROFINET IO	Protocols	
Supports protocol for PROFINET IO	PROFINET	Yes; also 3rd party PLC
PROFINET CBA No IRT Yes PROFISate No PROFISBUS No No IRT No IRT No IRT No IRT No IRT No IRT	Supports protocol for PROFINET IO	
PROFIBUS	PROFINET CBA	No
PROFIBUS EtherNet/IP No MPI No AS-Interface No Redundancy mode Media redundancy — MRP Further protocols • AS-Interface Safety at Work • CAN • Data-Highway • DeviceNet Safety • DeviceNet Safety • No • INTERBUS • INTERBUS • INTERBUS • AS-GetyBUS p • Local Operating Network • MODBUS • SafetyBUS p • SUCOnet • other bus systems Test commissioning functions Illuminant test EMC Emission of radio interference acc. to EN 55 011	IRT	Yes
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Key and signal lamp test Yes; automatically when switching on EMC Emission of radio interference acc. to EN 55 011		
EMC Emission of radio interference acc. to EN 55 011		
Emission of radio interference acc. to EN 55 011		Yes; automatically when switching on
• Limit class A, for use in industrial areas Yes; Group 1, measured at a distance of 10 m		
	 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	110
	IP65
IP (at the front) IP (rear)	IP20
NEMA (front)	11 20
·	No
Enclosure Type 4 at the frontEnclosure Type 4x at the front	Yes; Incl. NEMA12
Standards, approvals, certificates	1 60, IIIOI. NEIVIA 12
CE mark	Yes
cULus	Yes
RCM (formerly C-TICK)	Yes
KC approval	Yes
	Yes
EAC (formerly Gost-R) Suitable for safety functions	Yes
Use in hazardous areas	1 63
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	100
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	110
Ambient temperature during operation • min.	0 °C
• max.	55 °C
Operation (vertical installation)	
— For vertical installation, min.	0 °C
For vertical installation, min.	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 °C
— At maximum tilt angle, min.	45 °C
Ambient temperature during storage/transportation	
• min.	-20 °C
• max.	60 °C
Relative humidity	
Operation, max.	95 %; no condensation
configuration / header	
Configuration software	
STEP 7 Basic (TIA Portal)	Yes
STEP 7 Professional (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
01 000/400	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	
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)	280 g