SIEMENS

Data sheet   **6AV2127-1AB00-0LX1**

SIMATIC HMI KP8 PN LX, 8 short-stroke switches long, 1-6 mm sheet thickness, PN interfaces, black neutral design, 8 configurable DI/DQ pins, 24 V DC can be looped through, parameterizable as of STEP 7 V5.5

General information	
Product type designation	Key Panel KP8 PN LX (1 ... 6 mm)

Control elements	
With parameterizable keys	Yes
Keyboard fonts	
● Membrane keyboard	
— user-definable label membrane keys	No; possible via adjacent display
● Function keys	with L-pattern at key edge
— Number of function keys	8; 19 x 19 mm per button
● 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 fastening with additional mounting clips
Mounting position	Horizontal, vertical
Rack mounting	No
Front mounting	Yes; mounting clip - Torx T20 tighten to 0.2 Nm; enclosure - Torx T10 tighten to 0.2 Nm
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; Adjustable brightness
● yellow	Yes; Adjustable brightness
● green	Yes; Adjustable brightness
● white	Yes; Adjustable brightness

● blue	Yes; Adjustable brightness

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
EtherNet/IP	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
● 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)	IP64
IP (rear)	IP20

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NEMA (front)	
● Enclosure Type 4 at the front	No
● Enclosure Type 4x at the front	No
● Enclosure Type 12 at the front	No

Standards, approvals, certificates	
CE mark	Yes
CSA approval	No
UL approval	No
cULus	No
FM approval	No
RCM (formerly C-TICK)	No
KC approval	No
EAC (formerly Gost-R)	No
CCC	No; not necessary
Suitable for safety functions	No
Marine approval	No
Use in hazardous areas	
● ATEX Zone 2	No
● ATEX Zone 22	No
● cULus Class I Zone 1	No
● cULus Class I Zone 2, Division 2	No
● FM Class I Division 2	No
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.	60 °C
Operation (vertical installation)	
— For vertical installation, min.	0 °C
— For vertical installation, max.	60 °C
Operation (max. tilt angle)	
— At maximum tilt angle, min.	0 °C
— At maximum tilt angle, max.	60 °C
Operation (vertical installation, portrait format)	
— For vertical installation, min.	0 °C
— For vertical installation, max.	60 °C
Operation (max. tilt angle, portrait format)	
— At maximum tilt angle, min.	0 °C
— At maximum tilt angle, max.	60 °C
Ambient temperature during storage/transportation	
● min.	-20 °C
● max.	70 °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 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)	Bayblend FR3010 enclosure, Autotex F150 front membrane
● Plastic	Yes; neutral enclosure, black RAL 9005
● 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	40.7 mm
Height of housing front	252.4 mm
Mounting cutout, width	24 mm; tolerances +0.5 mm, not including connection plug (depending on connector type)
Mounting cutout, height	244 mm; tolerances +0.5 mm, not including connection plug (depending on connector type)
Overall depth	68.15 mm; mounting plate thickness max. 1 ... 6 mm
Weights	
Weight (without packaging)	297 g
Weight (with packaging)	475 g; incl. 1x 12-pole connector and 6x mounting clips
Other	
Merchandise	Yes; K S27602/TKS-008-KP8 PN LX-SIEMENS-C10093
Manufacturer name	GETT Gerätetechnik GmbH
Manufacturer's address	Mittlerer Ring 1, 08233 Treuen (Vogtland), Germany
Note:	Key Panel must be configured as 6AV3688-3AY36-0AX0 Key Panel, compatible with 6AV2127-1AB00-0LX0

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