

Key Panels

SIMATIC HMI Key Panels

The Key Panels, PROFINET successors to the PROFIBUS-based Push Button Panels, are operator panels which are ready-to-run without any configuration effort at all.

Alternatives to individually wired long-stroke keys. They are designed for direct operator control of the machine.

Key Panels provide many basic functions for direct operator control and monitoring instead of machine operator control, a cost-effective, versatile and space-saving combination, and they reduce configuration and installation costs to a minimum. Furthermore, additional actuators and sensors can also be optionally connected directly on the back of the devices. For applications directly next to a monitor, a very slim KP8 version is available (KP8 PN LX with 8 keys on top of each other)

The Key Panels can be used directly in line and ring topologies thanks to an integrated switch and two RJ45 PN sockets.

There are two fully configured IP65 installation enclosures for KP8(F) available.



- SIMATIC HMI blank front design
- SIMATIC HMI KP8 PN
- SIMATIC HMI KP8 PN LX
- SIMATIC HMI KP8F PN (shared device with GSD file possible)
- SIMATIC HMI KP32F PN (PROFI safe can be switched off)
- Installation enclosure KP8 (Accessories -> Fasteners)
- Installation enclosure KP8F (Accessories -> Fasteners)

> **6AV2127-1AB00-0LX0**

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



> **6AV3688-3AF37-0AX0**

SIMATIC HMI KP8F PN, Key Panel, 8 short-stroke switches with multi-colored LEDs, PROFINET interfaces with PROFIsafe; 8 DI/DO and 2 safety DI pins, 24 V DC can be looped through parameterizable as of STEP 7 V5.5



> **6AV3688-3AY36-0AX0**

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



> **6AV3688-3EH47-0AX0**

SIMATIC HMI KP32F PN, Key Panel, 32 short-stroke keys with multi-colored LEDs, PROFINET interfaces with PROFIsafe, 16 DI+16 DI/DO, 4 safety DI pins, 24 V DC can be looped through parameterizable as of STEP 7 V5.5



> **6AV3688-3XY38-3AX0**

design empty front in KP8 format for easy mounting of standard 22.5 mm operator controls Ideal for setting up modular operator panels also suitable for installation in extension units of the pro devices



> **6AG1688-3AF37-2AX0**

SIPLUS HMI KP8F PN -20...+55°C with Conformal Coating based on 6AV3688-3AF37-0AX0 . Key Panel, 8 short-stroke switches with multi-colored LEDs, PROFINET interfaces with PROFIsafe; 8 DI/DO and 2 safety DI pins, 24 V DC can be looped through parameterizable as of STEP 7 V5.5



> **6AG1688-3AY36-2AX0**

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



> **6AG1688-3EH47-2AX0**

SIPLUS HMI KP32F PN -20...+55°C with Conformal Coating based on 6AV3688-3EH47-0AX0 . Key Panel, 32 short-stroke keys with multi-colored LEDs, PROFINET interfaces with PROFIsafe, 16 DI+16 DI/DO, 4 safety DI pins, 24 V DC can be looped through parameterizable as of STEP 7 V5.5



> **6AG1688-3XY38-2AX0**

SIPLUS HMI Design empty front in KP8 format -25...+60°C With conformal coating based on 6AV3688-3XY38-3AX0 . Design empty front in KP8 format for easy mounting of standard 22.5 mm operator controls ideal for the setup of modular operator panels Also suitable for installation in extension units of the pro devices

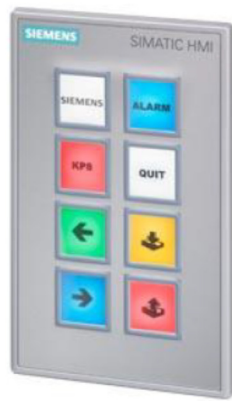


Figure similar

SIPLUS HMI KP8F PN -20...+55°C with Conformal Coating based on 6AV3688-3AF37-0AX0 . Key Panel, 8 short-stroke switches with multi-colored LEDs, PROFINET interfaces with PROFIsafe; 8 DI/DO and 2 safety DI pins, 24 V DC can be looped through parameterizable as of STEP 7 V5.5

General information	
Product type designation	KP8F 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 	Yes 8 8
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) 	8; Adjustable brightness 5; red, green, blue, yellow, white 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



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 	Yes 8 8
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) 	8; Adjustable brightness 5; red, green, blue, yellow, white 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 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

SIPLUS HMI KP32F PN -20...+55°C with Conformal Coating based on 6AV3688-3EH47-0AX0 . Key Panel, 32 short-stroke keys with multi-colored LEDs, PROFINET interfaces with PROFIsafe, 16 DI+16 DI/DO, 4 safety DI pins, 24 V DC can be looped through parameterizable as of STEP 7 V5.5



Figure similar

General information	
Product type designation	KP32F 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>32</p> <p>32</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>32</p>
Installation type/mounting	
Mounting type	Mounting clip
Mounting position	vertical
Rack mounting	No
Front mounting	Yes
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)	1 A



Figure similar

SIPLUS HMI Design empty front in KP8 format -25...+60°C With conformal coating based on 6AV3688-3XY38-3AX0 . Design empty front in KP8 format for easy mounting of standard 22.5 mm operator controls ideal for the setup of modular operator panels Also suitable for installation in extension units of the pro devices

General information	
Product type designation	Empty front design
Installation type/mounting	
Mounting type	Clamp terminals
Mounting position	any
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	180°; To the front/rear
Number of slots for command devices and signaling units	5; Max. 5 possible
Supply voltage	
Type of supply voltage	external
Interfaces	
Number of USB interfaces	0
Test commissioning functions	
Key and signal lamp test	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	No
Standards, approvals, certificates	
Suitable for safety functions	Yes; e.g. installation of emergency stop
Ambient conditions	
Ambient temperature during operation	
• min.	-40 °C; = Tmin
• max.	60 °C; = Tmax
Operation (vertical installation)	
— For vertical installation, min.	-40 °C; = Tmin
— For vertical installation, max.	60 °C; = Tmax

SIMATIC HMI KP8 PN LX, 8 short-stroke switches long, 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 mm)
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>No; possible via adjacent display with L-pattern at key edge</p> <p>8; 19 x 19 mm per button</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 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 <ul style="list-style-type: none"> • red • yellow • green • white • blue 	<p>Yes; Adjustable brightness</p> <p>Yes; Adjustable brightness</p> <p>Yes; Adjustable brightness</p> <p>Yes; Adjustable brightness</p> <p>Yes; Adjustable brightness</p>
Digital inputs	
Number of digital inputs	8; Total inputs and outputs max. 8 and 1x SIL 2 or 2x SIL 3
Input voltage	
<ul style="list-style-type: none"> • Rated value (DC) 	24 V



SIMATIC HMI KP8F PN, Key Panel, 8 short-stroke switches with multi-colored LEDs, PROFINET interfaces with PROFIsafe; 8 DI/DO and 2 safety DI pins, 24 V DC can be looped through parameterizable as of STEP 7 V5.5

General information	
Product type designation	KP8F 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	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



SIMATIC HMI KP8 PN Key Panel, 8 short-stroke switches with multi-colored 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	
<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 	 Yes 8 8
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) 	 8; Adjustable brightness 5; red, green, blue, yellow, white 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

SIMATIC HMI KP32F PN, Key Panel, 32 short-stroke keys with multi-colored LEDs, PROFINET interfaces with PROFINsafe, 16 DI+16 DI/DO, 4 safety DI pins, 24 V DC can be looped through parameterizable as of STEP 7 V5.5



General information	
Product type designation	KP32F 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>32</p> <p>32</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>32</p>
Installation type/mounting	
Mounting type	Mounting clip
Mounting position	vertical
Rack mounting	No
Front mounting	Yes
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)	1 A



design empty front in KP8 format for easy mounting of standard 22.5 mm operator controls Ideal for setting up modular operator panels also suitable for installation in extension units of the pro devices

Figure similar

General information	
Product type designation	Empty front design
Installation type/mounting	
Mounting type	Clamp terminals
Mounting position	any
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	180°; To the front/rear
Number of slots for command devices and signaling units	5; Max. 5 possible
Supply voltage	
Type of supply voltage	external
Interfaces	
Number of industrial Ethernet interfaces	0
Number of PROFINET interfaces	0
Number of USB interfaces	0
Protocols	
PROFINET	No
PROFIsafe	No
Redundancy mode	
Media redundancy	
— MRP	No
Test commissioning functions	
Key and signal lamp test	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	No



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