

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



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 	Yes 32 32
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 32
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
Type of output	
LED colors	
<ul style="list-style-type: none"> red yellow green white blue 	Yes Yes Yes Yes Yes

Digital inputs	
Number of digital inputs	32; Total inputs and outputs max. 32 and 2x SIL 2 or 4x SIL 3
Input voltage	
• Rated value (DC)	24 V
Digital outputs	
Number of digital outputs	16; Max. 32 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; incl. shared device, 3rd party PLC
Supports protocol for PROFINET IO	Yes
PROFINET CBA	No
IRT	Yes
PROFIsafe	Yes; 2x SIL 3 (two-channel) or 4x SIL 2 (single-channel) emergency stop sensors
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)	IP65
IP (rear)	IP20

NEMA (front)	
<ul style="list-style-type: none"> Enclosure Type 4 at the front Enclosure Type 4x at the front 	<p>No</p> <p>Yes; Incl. NEMA12</p>
Standards, approvals, certificates	
CE mark	Yes
cULus	Yes
RCM (formerly C-TICK)	Yes
KC approval	Yes
EAC (formerly Gost-R)	Yes
CCC	No; not necessary
Suitable for safety functions	Yes
Use in hazardous areas	
<ul style="list-style-type: none"> ATEX Zone 2 ATEX Zone 22 cULus Class I Zone 1 cULus Class I Zone 2, Division 2 FM Class I Division 2 	<p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p>
Marine approval	
<ul style="list-style-type: none"> Germanischer Lloyd (GL) American Bureau of Shipping (ABS) Bureau Veritas (BV) Det Norske Veritas (DNV) Lloyds Register of Shipping (LRS) Nippon Kaiji Kyokai (Class NK) Polski Rejestr Statkow (PRS) 	<p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p> <p>No</p>
Ambient conditions	
Ambient temperature during operation	
<ul style="list-style-type: none"> min. max. 	<p>0 °C</p> <p>55 °C</p>
Operation (vertical installation)	
<ul style="list-style-type: none"> For vertical installation, min. For vertical installation, max. 	<p>0 °C</p> <p>55 °C</p>
Operation (max. tilt angle)	
<ul style="list-style-type: none"> At maximum tilt angle, min. At maximum tilt angle, max. 	<p>0 °C</p> <p>45 °C</p>
Operation (vertical installation, portrait format)	
<ul style="list-style-type: none"> For vertical installation, min. For vertical installation, max. 	<p>0 °C</p> <p>55 °C</p>
Operation (max. tilt angle, portrait format)	
<ul style="list-style-type: none"> At maximum tilt angle, min. At maximum tilt angle, max. 	<p>0 °C</p> <p>45 °C</p>
Ambient temperature during storage/transportation	
<ul style="list-style-type: none"> min. max. 	<p>-20 °C</p> <p>60 °C</p>
Relative humidity	
<ul style="list-style-type: none"> Operation, max. 	95 %; no condensation
configuration / header	
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! WinAC SINUMERIK SIMOTION Allen Bradley (EtherNet/IP) 	<p>Yes; with ET 200pro CPU and ET 200S CPU</p> <p>Yes</p> <p>No</p> <p>Yes; with F-CPU: STEP 7 V11 SP1 or higher and Safety V11 (or higher), without F-CPU STEP 7 or SIMATIC STEP 7 Basic V11 (or higher)</p> <p>No</p> <p>Yes</p> <p>No</p> <p>No</p> <p>No</p>

- 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 No
 - Aluminum Yes
 - Stainless steel No

Service life

- Short-stroke keys (in switching cycles) 1 500 000
- LEDs (ON period) 100 %

Dimensions

- Width of the housing front 295 mm
- Height of housing front 155 mm
- Mounting cutout, width 277 mm; Max. thickness of mounting plate 2 - 6 mm
- Mounting cutout, height 137 mm
- Overall depth 69 mm; Incl. angled SIMATIC Ethernet connector

Weights

- Weight (without packaging) 1 220 g

last modified: 3/2/2021 