

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	
<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
Digital inputs	
Number of digital inputs	32; Total inputs and outputs max. 32 and 2x SIL 2 or 4x SIL 3
Input voltage	
<ul style="list-style-type: none"> 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
PROFINET IO	Yes
PROFINET CBA	Yes
IRT	No
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)	
• Enclosure Type 4 at the front	No

• Enclosure Type 4x at the front	Yes; Incl. NEMA12
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
Ecological footprint	
• environmental product declaration	Yes
Global warming potential	
— global warming potential, (total) [CO2 eq]	113 kg
— global warming potential, (during production) [CO2 eq]	38.5 kg
— global warming potential, (during operation) [CO2 eq]	82.3 kg
— global warming potential, (after end of life cycle) [CO2 eq]	-8.27 kg
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.	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, max.	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, max.	45 °C
Ambient temperature during storage/transportation	
• min.	-20 °C
• max.	60 °C
Relative humidity	
• Operation, max.	95 %; no condensation
Configuration	
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), without F-CPU STEP 7 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 (Host Link)	No
• Modicon (Modbus TCP/IP)	No
• Modicon (Modbus RTU)	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
mounting depth	37 mm; Incl. angled SIMATIC Ethernet connector

Weights

Weight (without packaging)	1 220 g
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Classifications

	Version	Classification
eClass	16	27-33-02-04
eClass	14	27-33-02-04
eClass	12	27-33-02-04
eClass	9.1	27-33-02-04
eClass	9	27-33-02-04
eClass	8	27-24-23-05
eClass	7.1	27-24-23-05
eClass	6	27-24-23-05
ETIM	10	EC001415
ETIM	9	EC001415
ETIM	8	EC001415
ETIM	7	EC001415
IDEA	4	5266
UNSPSC	15	39-12-22-21

Approvals / Certificates

General Product Approval



General Product Approval		EMV	For use in hazardous locations		Functional Safety
China RoHS	 EG-Konf.		 RCM	 UL	TUEV
Functional Safety	other		Environment	Industrial Communication	
Type Examination Certificate	TUEV	PROFINET	PROFIsafe		PROFIsafe
Industrial Communication					
PROFINET					

last modified: 4/13/2026 