

SIMATIC HMI KP8 PN KEY PANEL, 8 SHORT-STROKE KEYS WITH MULTI-COLOR LED'S, PROFINET INTERFACE 8 CONFIGURABLE DI/DO PINS, 24V DC LOOP THROUGH CONFIGURABLE WITH STEP7 V5.5 AND LATER



Product type designation	
Control elements	
With parameterizable keys	Yes
With key and signal lamp test	Yes; Automatically when switching on
Keyboard fonts	
<ul style="list-style-type: none"> • Membrane keyboard <ul style="list-style-type: none"> — user-definable label membrane keys • Short-stroke keys <ul style="list-style-type: none"> — Number of short-stroke keys 	<p>Yes</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	
Rack mounting possible	No
Front installation possible	Yes; Compatible with extension unit dimensions
Rail mounting possible	No
Wall mounting/direct mounting possible	No

Mounting in portrait format possible	Yes
Mounting in landscape format possible	Yes
Mounting position	vertical
maximum permissible angle of inclination without external ventilation	30°; To the front/rear
Mounting technology	Clamp terminals
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
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Type of output

LED colors	
<ul style="list-style-type: none"> • red • yellow • Green • white • blue 	<ul style="list-style-type: none"> Yes Yes Yes Yes Yes

Digital inputs

Number of digital inputs	8; Max. 8 inputs and outputs (total)
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Input voltage

<ul style="list-style-type: none"> • Rated value (DC) 	24 V
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Digital outputs

Number of digital outputs	8; Max. 8 inputs and outputs (total)
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Load "resistive"	100 mA
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Number of additional outputs	
<ul style="list-style-type: none"> • Output current (per output), max. • Total current (per group), max. • short-circuit protection 	<ul style="list-style-type: none"> 100 mA 800 mA Yes

Output voltage

<ul style="list-style-type: none"> • Rated value (DC) 	24 V; Non-isolated
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Interfaces

PROFINET IO

<ul style="list-style-type: none"> • Number of PROFINET interfaces 	2; Incl. switch
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Industrial Ethernet

<ul style="list-style-type: none"> • Number of industrial Ethernet interfaces 	2; For the construction of lines and rings without external switch
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- 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
MRP	Yes
PROFIsafe	No
PROFIBUS	No
MPI	No
AS-Interface	No

Protocols (Ethernet)

• TCP/IP	No
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Further protocols

• AS-Interface Safety at Work	No
• SafetyBUS p	No
• CAN	No
• INTERBUS	No
• INTERBUS-Safety	No
• EIB/KNX	No
• MODBUS	No
• Data-Highway	No
• DeviceNet	No
• DeviceNet Safety	No
• EtherNet/IP	No
• Local Operating Network	No
• SUCOnet	No
• Foundation Fieldbus	No
• SERCOS	No
• other bus systems	No

Test commissioning functions

Illuminant test	Yes; During switch on
Pushbutton and lamp test	Yes; During switch 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
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Enclosure Type 4 at the front	No
Enclosure Type 4x at the front	Yes; Incl. NEMA12
IP (rear)	IP20

Standards, approvals, certificates

CE mark	Yes
cULus	Yes
RCM (formerly C-TICK)	Yes
KC approval	Yes
Suitable for safety functions	No

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) 	<ul style="list-style-type: none"> No No No No No No No
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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 	<ul style="list-style-type: none"> Yes Yes No Yes Yes
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Ambient conditions

Ambient temperature during operation

<ul style="list-style-type: none"> • min. • max. • Operation (vertical installation) <ul style="list-style-type: none"> — For vertical installation, min. — For vertical installation, max. • Operation (max. tilt angle) <ul style="list-style-type: none"> — At maximum tilt angle, min. — At maximum tilt angle, min. • Operation (vertical installation, portrait format) <ul style="list-style-type: none"> — For vertical installation, min. — For vertical installation, max. • Operation (max. tilt angle, portrait format) <ul style="list-style-type: none"> — At maximum tilt angle, min. — At maximum tilt angle, min. 	<ul style="list-style-type: none"> 0 °C 55 °C 0 °C 55 °C 0 °C 45 °C 0 °C 45 °C 0 °C 45 °C
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Ambient temperature during storage/transportation

<ul style="list-style-type: none"> • min. 	<ul style="list-style-type: none"> -20 °C
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• 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; 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 (LINK/Multilink)	No
• Modicon (Modbus TCP/IP)	No
• Modicon (Modbus)	No

Mechanics/material

Type of housing (front)	
• plastic	Yes
• aluminum	No
• Stainless steel	No

Lifetime, typ.	
• 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

270 g

last modified:

21.07.2015