6AV3688-3AF37-0AX0

Data sheet



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

Product type designation Control elements With parameterizable keys • Membrane keyboard — user-definable label membrane keys • Function keys — Number of function keys 8 • Short-stroke keys — Number of short-stroke keys 8 Expansions for operator control of the process • De Pdirect LEDs (LEDs as S7 output I/O) • Number of color modes for LED • Direct keys (keys as S7 input I/O) • Number of soor says S7 input I/O) • Number of color modes for LED • Direct keys (keys as S7 input I/O) • Nounting type Mounting type Mounting type Mounting position Front mounting Raik mounting No Front mounting No Wall mounting/direct mounting No Mounting in portrait format possible Mounting in portrait format possible Mounting in landscape format possible Mounting in permissible angle of inclination without external ventilation Number of slots for command devices and signaling units Supply voltage Rated value (DC) Permissible range, upper limit (DC) 24 V; 24 V can be looped through connector, interrupted when pulled permissible range, upper limit (DC) 28.8 V Input current Current consumption (rated value) • Yes • yellow • Yes • yellow • Yes • yellow • Yes • yellow	General information	
With parameterizable keys Keyboard fonts Membrane keyboard — user-definable label membrane keys Function keys — Number of short-stroke keys — Number of short-stroke keys — Number of short-stroke keys — Number of sort stroke keys — Number of color modes for LED — No Mounting in portait format possible — No Mounting in portrait format possible — Yes Mounting in landscape format possible — Yes Mounting of slots for command devices and signalling units Supply voltage — DC Rated value (DC) — 24 V; 24 V can be looped through connector, interrupted when pulled — permissible range, lower limit (DC) — 28.8 V — Input current — Current consumption (rated value) — Yes — red — Yes	Product type designation	KP8F PN
Membrane keyboard — user-definable label membrane keys Function keys — Number of function keys — Number of short-stroke keys ■ Standard Stroke for operator control of the process ● DP direct LEDs (LEDs as S7 output I/O) ■ Number of color modes for LED ● Direct keys (keys as S7 input I/O) ■ Number of solor modes for LED ● Direct keys (keys as S7 input I/O) ■ Mounting type Mounting type Mounting type Mounting position Rack mounting Rail mounting Rail mounting No Mounting in portrait format possible Mounting in portrait format possible Mounting in landscape format possible Mounting in landscape format possible Mounting in landscape format possible Mounting of slots for command devices and signaling units Supply voltage Type of supply voltage Type of supply voltage Type of supply upper limit (DC) permissible range, lower limit (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) 28.8 V Input current Current consumption (rated value) Type of output LED colors • red Ves	Control elements	
Membrane keyboard — user-definable label membrane keys Function keys Function keys — Number of function keys — Short-stroke keys — Number of color modes for LED Street LEDs (LEDs as S7 output I/O) Number of color modes for LED Street, green, blue, yellow, white Direct keys (keys as S7 input I/O) Number of solor modes for LED Mounting type Mounting type Mounting type Mounting position Rack mounting No Yes; Compatible with Extension Units dimensions Rail mounting/direct mounting No Mounting in portrait format possible Mounting in landscape format possible maximum permissible angle of inclination without external ventilation Number of slots for command devices and signalling units Supply voltage Type of supply voltage Type of supply voltage Rated value (DC) permissible range, upper limit (DC) permissible range, upper	With parameterizable keys	Yes
- user-definable label membrane keys Function keys - Number of function keys 8 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) • Number of color modes for LED • Direct keys (keys as S7 input I/O) 8 Installation type/mounting Mounting type Mounting position Rack mounting No Front mounting No Wall mounting/direct mounting No Mounting in portrait format possible maximup permissible angle of inclination without external ventilation Number of slots for command devices and signaling units Supply voltage Type of supply voltage Rate value (DC) permissible range, lower limit (DC) 28.8 V Input current Current consumption (rated value) • red Yes Yes Yes Yes Yes Type of output LED colors • red Yes	Keyboard fonts	
Function keys Number of function keys Short-stroke keys Number of short-stroke keys Pol direct LEDs (LEDs as S7 output I/O) Number of color modes for LED Direct keys (keys as S7 input I/O) Installation type/mounting Mounting type Mounting position Rack mounting Rack mounting Wall mounting/direct mounting Mounting in landscape format possible Mounting in landscape format possible maximum permissible angle of inclination without external ventilation Number of slots for command devices and signaling units Supply voltage Type of supply voltage Current consumption (rated value) D. 3. A Type of output LED colors Fred Yes Sardjustable brightness 8 Adjustable Pleiow, with 8 Adjustable preliew 9 Augustable preliew 9 Augustable preliew 9	 Membrane keyboard 	
- Number of function keys • Short-stroke keys - Number of short-stroke keys Expansions for operator control of the process • 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 • DP direct keys (keys as S7 input I/O) • Number of color modes for LED • Direct keys (keys as S7 input I/O) Installation type/mounting Mounting type Mounting position Rack mounting Front mounting Yes; Compatible with Extension Units dimensions Rail mounting Ves Mounting in portrait format possible Mounting in Inardscape format possible Type of slots for command devices and signaling units Supply voltage Type of supply voltage DC Rated value (DC) permissible range, lower limit (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) 28.8 V Input current Current consumption (rated value) • red Yes	 user-definable label membrane keys 	Yes
Short-stroke keys Number of short-stroke keys Pyansions for operator control of the process Defined LEDs (LEDs as S7 output I/O) Number of color modes for LED Direct keys (keys as S7 input I/O) Nounting type Mounting type Mounting position Rack mounting Rail mounting Wall mounting/direct mounting No Mounting in portrait format possible Mounting in landscape format possible Mounting in landscape format possible Mounting of slots for command devices and signaling units Supply voltage Type of supply voltage Rate value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Led Colors Pred Pyes Adjustable brightness 8, Adjustable brightness 8, Adjustable brightness 8, Adjustable brightness 8, Adjustable brightness 9, Adjustable brightne	 Function keys 	
Expansions for operator control of the process • DP direct LEDs (LEDs as S7 output I/O) • Number of color modes for LED • Direct keys (keys as S7 input I/O) • Number of color modes for LED • Direct keys (keys as S7 input I/O) Installation type/mounting Mounting type Mounting position Rack mounting Front mounting No Wall mounting/direct mounting Mounting in portrait format possible Mounting in portrait format possible Mounting in Inandscape format possible Mounting of Sides for command devices and signaling units Supply voltage Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Input current Current consumption (rated value) Type of output LED colors • red Yes Stigus Adjustable brightness 8; Adjustable pellow, white 8; Adjustable prelimit (PC) 8; Adjustable pr	 Number of function keys 	8
Expansions for operator control of the process • DP direct LEDs (LEDs as S7 output I/O) • Number of color modes for LED • Direct keys (keys as S7 input I/O) 8 **Number of color modes for LED • Direct keys (keys as S7 input I/O) **Installation type/mounting **Mounting type **Mounting position **Rack mounting **Pront mounting **Rail mounting **Mounting in portrait format possible **Mounting in portrait format possible **Mounting in landscape format possible **maximum permissible angle of inclination without external ventilation **Number of slots for command devices and signaling units **Supply voltage Type of supply voltage **Rated value (DC) **permissible range, lower limit (DC) **permissible range, upper limit (DC) **permissible range, upper limit (DC) **permissible range, upper limit (DC) **permissible colors **ped **Yes	Short-stroke keys	
DP direct LEDs (LEDs as S7 output I/O) Number of color modes for LED Direct keys (keys as S7 input I/O) Installation type/mounting Mounting type Mounting type Mounting position Rack mounting Rack mounting Front mounting No Wall mounting/direct mounting No Mounting in landscape format possible maximum permissible angle of inclination without external ventilation Number of slots for command devices and signaling units Supply voltage Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Input current Current consumption (rated value) Type of output LED colors Fred Mounting (signen, blue, yellow, white Strend, green, blue, yellow, white Ser, cand, public, yellow, white Strend, green, blue, yellow, yell	Number of short-stroke keys	8
• Number of color modes for LED • Direct keys (keys as S7 input I/O) Installation type/mounting Mounting type Mounting position Rack mounting Front mounting Front mounting Wall mounting/direct mounting Mounting in portrait format possible maximum permissible angle of inclination without external ventilation Number of slots for command devices and signaling units Supply voltage Type of supply voltage Rated value (DC) permissible range, upper limit (DC) permissible range, upper limit (DC) permissible range, upper limit (DC) permissible range of uptout LED colors • red Mounting clip Mounting clip vertical Non No Mounting clip vertical No No Ves; Compatible with Extension Units dimensions No	·	
■ Direct keys (keys as S7 input I/O) Installation type/mounting Mounting type Mounting position Rack mounting Pront mounting Rail mounting Wall mounting/direct mounting Mounting in portrait format possible Mounting in landscape format possible maximum permissible angle of inclination without external ventilation Number of slots for command devices and signaling units Supply voltage Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) permissible range, upper limit (DC) Input current Current consumption (rated value) Type of output LED colors ■ red Mounting clip Westical Rate mounting No Yes Sompatible with Extension Units dimensions No Yes On Type of output LED colors ■ red Yes		
Mounting type		5; red, green, blue, yellow, white
Mounting type Mounting clip Mounting position vertical Rack mounting No Front mounting Yes; Compatible with Extension Units dimensions Rail mounting direct mounting No Wall 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 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		8
Mounting position Rack mounting No Front mounting Yes; Compatible with Extension Units dimensions Rail mounting Wall mounting/direct mounting No Mounting in portrait format possible Mounting in landscape format possible Tyes Type of supply voltage of inclination without external ventilation Number of slots for command devices and signaling units Supply voltage Type of 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) 22.4 V permissible range, upper limit (DC) 28.8 V Input current Current consumption (rated value) Type of output LED colors ■ red Yes	Installation type/mounting	
Rack mounting Front mounting Yes; Compatible with Extension Units dimensions Rail mounting No Wall mounting/direct mounting Mounting in portrait format possible Mounting in landscape format possible Tyes Mounting in landscape format possible Tyes Maximum permissible angle of inclination without external ventilation Number of slots for command devices and signaling units Supply voltage Type of supply voltage Rated value (DC) Permissible range, lower limit (DC) permissible range, upper limit (DC) 128.8 V Input current Current consumption (rated value) Type of output LED colors • red Yes	Mounting type	Mounting clip
Front mounting Rail mounting No Wall mounting/direct mounting Mounting in portrait format possible Mounting in landscape format possible Maximum permissible angle of inclination without external ventilation Number of slots for command devices and signaling units Supply voltage Type of supply voltage Rated value (DC) Permissible range, lower limit (DC) permissible range, upper limit (DC) permissible range, upper limit (DC) Input current Current consumption (rated value) Type of output LED colors • red Yes No No No No No No No No No Yes 30°; To the front/rear 20°; To the front/rear	Mounting position	vertical
Rail mounting Wall mounting/direct mounting Mounting in portrait format possible Mounting in landscape format possible Maximum permissible angle of inclination without external ventilation Number of slots for command devices and signaling units Supply voltage Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) permissible range, upper limit (DC) permissible range, upper limit (DC) 28.8 V Input current Current consumption (rated value) Type of output LED colors • red No No No No No No No No No Yes	Rack mounting	No
Wall mounting/direct mounting Mounting in portrait format possible Mounting in landscape format possible maximum permissible angle of inclination without external ventilation Number of slots for command devices and signaling units Supply voltage Type of supply voltage Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) permissible range, upper limit (DC) 28.8 V Input current Current consumption (rated value) Type of output LED colors • red Yes	Front mounting	Yes; Compatible with Extension Units dimensions
Mounting in portrait format possible Mounting in landscape format possible maximum permissible angle of inclination without external ventilation Number of slots for command devices and signaling units Supply voltage Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) permissible range, upper limit (DC) Input current Current consumption (rated value) Type of output LED colors • red Yes 30°; To the front/rear 0 30°; To the front/rear 0 20.4 V permissible range lower limit (DC) 24 V; 24 V can be looped through connector, interrupted when pulled 20.4 V 28.8 V Input current Current consumption (rated value) Yes		
Mounting in landscape format possible maximum permissible angle of inclination without external ventilation Number of slots for command devices and signaling units Supply voltage Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Input current Current consumption (rated value) Current consumption (rated value) Type of output LED colors ■ red Yes		No
maximum permissible angle of inclination without external ventilation Number of slots for command devices and signaling units Supply voltage Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) Input current Current consumption (rated value) Type of output LED colors • red o 30°; To the front/rear		Yes
Number of slots for command devices and signaling units Supply voltage Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) permissible range, upper limit (DC) 28.8 ∨ Input current Current consumption (rated value) Type of output LED colors • red • red DC 24 ∨; 24 ∨ can be looped through connector, interrupted when pulled 28.8 ∨ Input current O.3 A Type of output Yes		
Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) 28.8 V Input current Current consumption (rated value) Type of output LED colors ● red PC PC PC PC PC PC PC PC PC P	ventilation	30°; To the front/rear
Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) 28.8 V Input current Current consumption (rated value) Type of output LED colors • red PC 24 V; 24 V can be looped through connector, interrupted when pulled 28.8 V 0.3 A Type of output Yes	Number of slots for command devices and signaling units	0
Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) 28.8 V Input current Current consumption (rated value) Type of output LED colors • red Yes	Supply voltage	
permissible range, lower limit (DC) permissible range, upper limit (DC) Input current Current consumption (rated value) Type of output LED colors • red Yes	Type of supply voltage	DC
permissible range, upper limit (DC) Input current Current consumption (rated value) Type of output LED colors • red Yes	Rated value (DC)	24 V; 24 V can be looped through connector, interrupted when pulled
Input current Current consumption (rated value) Type of output LED colors • red Yes	permissible range, lower limit (DC)	20.4 V
Current consumption (rated value) Type of output LED colors • red Yes	permissible range, upper limit (DC)	28.8 V
Type of output LED colors • red Yes	Input current	
LED colors • red Yes	Current consumption (rated value)	0.3 A
• red Yes	Type of output	
	LED colors	
• yellow Yes	• red	Yes
	• yellow	Yes
• green Yes	• green	Yes

• white	Yes	
• blue	Yes	
Digital inputs		
Number of digital inputs	8; Total inputs and outputs max. 8 and 1x SIL 2 or 2x SIL 3	
Input voltage	o, Total inputs and outputs max. o and TX oil 2 of 2X oil o	
Rated value (DC)	24 V	
Digital outputs	27 V	
	O. May O inpute and autoute (tatal)	
Number of digital outputs	8; Max. 8 inputs and outputs (total) Yes	
Short-circuit protection	res	
Switching capacity of the outputs	100 mA	
with resistive load, max. Output voltage.	100 mA	
Output voltage	24 V. Non incloted	
Rated value (DC) Total current of the cutoute	24 V; Non-isolated	
Total current of the outputs	100 mA	
Current per channel, max. Current per group, max.		
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	Yes; 1x SIL 3 (two-channel) or 2x 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 A, for use in industrial areas Limit class B, for use in residential areas	No
Degree and class of protection	110
	IDGE
IP (at the front) IP (rear)	IP65 IP20
	IP20
NEMA (front)	No
Enclosure Type 4 at the front Find course Type 4x at the front	No
Enclosure Type 4x at the front	Yes; Incl. NEMA12
Standards, approvals, certificates	V.
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	
• ATEX Zone 2	Yes
• ATEX Zone 22	Yes
• cULus Class I Zone 1	No
• cULus Class I Zone 2, Division 2	Yes
• FM Class I Division 2	Yes
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	
Ambient temperature during operation	
min.	0 °C
min. max.	0 °C 55 °C
• min.	55 °C
min.max.Operation (vertical installation)— For vertical installation, min.	55 °C 0 °C
 min. max. Operation (vertical installation) — For vertical installation, min. — For vertical installation, max. 	55 °C
 min. max. Operation (vertical installation) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle) 	55 °C 0 °C 55 °C
 min. max. Operation (vertical installation) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle) — At maximum tilt angle, min. 	55 °C 0 °C 55 °C 0 °C
 min. max. Operation (vertical installation) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle) — At maximum tilt angle, min. — At maximum tilt angle, max. 	55 °C 0 °C 55 °C
 min. max. Operation (vertical installation) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle) — At maximum tilt angle, min. — At maximum tilt angle, max. Operation (vertical installation, portrait format) 	55 °C 0 °C 55 °C 0 °C 45 °C
 min. max. Operation (vertical installation) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle) — At maximum tilt angle, min. — At maximum tilt angle, max. Operation (vertical installation, portrait format) — For vertical installation, min. 	55 °C 0 °C 55 °C 0 °C 45 °C 0 °C
 min. max. Operation (vertical installation) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle) — At maximum tilt angle, min. — At maximum tilt angle, max. Operation (vertical installation, portrait format) — For vertical installation, min. — For vertical installation, max. 	55 °C 0 °C 55 °C 0 °C 45 °C
 min. max. Operation (vertical installation) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle) — At maximum tilt angle, min. — At maximum tilt angle, max. Operation (vertical installation, portrait format) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle, portrait format) 	55 °C 0 °C 55 °C 0 °C 45 °C 0 °C 55 °C
 min. max. Operation (vertical installation) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle) — At maximum tilt angle, min. — At maximum tilt angle, max. Operation (vertical installation, portrait format) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle, portrait format) — At maximum tilt angle, min. 	55 °C 0 °C 55 °C 0 °C 45 °C 0 °C 55 °C
 min. max. Operation (vertical installation) For vertical installation, min. For vertical installation, max. Operation (max. tilt angle) At maximum tilt angle, min. At maximum tilt angle, max. Operation (vertical installation, portrait format) For vertical installation, min. For vertical installation, max. Operation (max. tilt angle, portrait format) At maximum tilt angle, min. At maximum tilt angle, max. 	55 °C 0 °C 55 °C 0 °C 45 °C 0 °C 55 °C
 min. max. Operation (vertical installation) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle) — At maximum tilt angle, min. — At maximum tilt angle, max. Operation (vertical installation, portrait format) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle, portrait format) — At maximum tilt angle, min. 	55 °C 0 °C 55 °C 0 °C 45 °C 0 °C 55 °C
 min. max. Operation (vertical installation) For vertical installation, min. For vertical installation, max. Operation (max. tilt angle) At maximum tilt angle, min. At maximum tilt angle, max. Operation (vertical installation, portrait format) For vertical installation, min. For vertical installation, max. Operation (max. tilt angle, portrait format) At maximum tilt angle, min. At maximum tilt angle, max. 	55 °C 0 °C 55 °C 0 °C 45 °C 0 °C 55 °C -20 °C
 min. max. Operation (vertical installation) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle) — At maximum tilt angle, min. — At maximum tilt angle, max. Operation (vertical installation, portrait format) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle, portrait format) — At maximum tilt angle, min. — At maximum tilt angle, max. Ambient temperature during storage/transportation min. max. 	55 °C 0 °C 55 °C 0 °C 45 °C 0 °C 55 °C
 min. max. Operation (vertical installation) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle) — At maximum tilt angle, min. — At maximum tilt angle, max. Operation (vertical installation, portrait format) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle, portrait format) — At maximum tilt angle, min. — At maximum tilt angle, max. Ambient temperature during storage/transportation min. max. Relative humidity 	55 °C 0 °C 55 °C 0 °C 45 °C 0 °C 45 °C 0 °C 55 °C
 min. max. Operation (vertical installation) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle) — At maximum tilt angle, min. — At maximum tilt angle, max. Operation (vertical installation, portrait format) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle, portrait format) — At maximum tilt angle, min. — At maximum tilt angle, max. Ambient temperature during storage/transportation min. max. Relative humidity Operation, max. 	55 °C 0 °C 55 °C 0 °C 45 °C 0 °C 55 °C -20 °C
 min. max. Operation (vertical installation) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle) — At maximum tilt angle, min. — At maximum tilt angle, max. Operation (vertical installation, portrait format) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle, portrait format) — At maximum tilt angle, min. — At maximum tilt angle, max. Ambient temperature during storage/transportation min. max. Relative humidity 	55 °C 0 °C 55 °C 0 °C 45 °C 0 °C 45 °C 0 °C 55 °C
 min. max. Operation (vertical installation) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle) — At maximum tilt angle, min. — At maximum tilt angle, max. Operation (vertical installation, portrait format) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle, portrait format) — At maximum tilt angle, min. — At maximum tilt angle, max. Ambient temperature during storage/transportation min. max. Relative humidity Operation, max. 	55 °C 0 °C 55 °C 0 °C 45 °C 0 °C 45 °C 0 °C 55 °C
 min. max. Operation (vertical installation) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle) — At maximum tilt angle, min. — At maximum tilt angle, max. Operation (vertical installation, portrait format) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle, portrait format) — At maximum tilt angle, min. — At maximum tilt angle, max. Ambient temperature during storage/transportation min. max. Relative humidity Operation, max. configuration / header 	55 °C 0 °C 55 °C 0 °C 45 °C 0 °C 45 °C 0 °C 55 °C
 min. max. Operation (vertical installation) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle) — At maximum tilt angle, min. — At maximum tilt angle, max. Operation (vertical installation, portrait format) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle, portrait format) — At maximum tilt angle, min. — At maximum tilt angle, max. Ambient temperature during storage/transportation min. max. Relative humidity Operation, max. configuration / header Configuration software 	55 °C 0 °C 55 °C 0 °C 45 °C 0 °C 55 °C 0 °C 55 °C -20 °C 60 °C 95 %; no condensation
 min. max. Operation (vertical installation) For vertical installation, min. For vertical installation, max. Operation (max. tilt angle) At maximum tilt angle, min. At maximum tilt angle, max. Operation (vertical installation, portrait format) For vertical installation, min. For vertical installation, max. Operation (max. tilt angle, portrait format) At maximum tilt angle, min. At maximum tilt angle, max. Ambient temperature during storage/transportation min. max. Relative humidity Operation, max. Configuration / header Configuration software STEP 7 Basic (TIA Portal) 	55 °C 0 °C 55 °C 0 °C 45 °C 0 °C 55 °C 0 °C 45 °C -20 °C 60 °C 95 %; no condensation
 min. max. Operation (vertical installation) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle) — At maximum tilt angle, min. — At maximum tilt angle, max. Operation (vertical installation, portrait format) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle, portrait format) — At maximum tilt angle, min. — At maximum tilt angle, max. Ambient temperature during storage/transportation • min. • max. Relative humidity • Operation, max. configuration / header Configuration software • STEP 7 Basic (TIA Portal) • STEP 7 Professional (TIA Portal) Functionality under WinCC (TIA Portal) 	55 °C 0 °C 55 °C 0 °C 45 °C 0 °C 55 °C 0 °C 45 °C -20 °C 60 °C 95 %; no condensation
 min. max. Operation (vertical installation) For vertical installation, min. For vertical installation, max. Operation (max. tilt angle) At maximum tilt angle, min. At maximum tilt angle, max. Operation (vertical installation, portrait format) For vertical installation, min. For vertical installation, max. Operation (max. tilt angle, portrait format) At maximum tilt angle, min. At maximum tilt angle, max. Ambient temperature during storage/transportation min. max. Relative humidity Operation, max. Configuration / header Configuration software STEP 7 Basic (TIA Portal) STEP 7 Professional (TIA Portal) 	55 °C 0 °C 55 °C 0 °C 45 °C 0 °C 55 °C 0 °C 45 °C -20 °C 60 °C 95 %; no condensation
 min. max. Operation (vertical installation) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle) — At maximum tilt angle, min. — At maximum tilt angle, max. Operation (vertical installation, portrait format) — For vertical installation, min. — For vertical installation, max. Operation (max. tilt angle, portrait format) — At maximum tilt angle, min. — At maximum tilt angle, max. Ambient temperature during storage/transportation • min. • max. Relative humidity • Operation, max. configuration / header Configuration software • STEP 7 Basic (TIA Portal) • STEP 7 Professional (TIA Portal) Functionality under WinCC (TIA Portal) Process coupling 	55 °C 0 °C 55 °C 0 °C 45 °C 0 °C 55 °C 0 °C 45 °C 0 °C 55 °C 95 °C 0 °C 45 °C 720 °C 60 °C 95 %; no condensation

• 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)	
 Plastic 	Yes
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	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)	280 g
last modified:	3/2/2021 🗗