## **SIEMENS**

## **Data sheet**

6AV2185-8EF01-0AA0

Extension unit 19" KP12F PN for mounting on all fully IP65-protected 16:9 HMI/IPC devices. For the flexible installation of operator controls, 6 mounting positions, 6 operator controls equippable. Connection via PROFIsafe (without equipment)



Product type designation  Control elements  Version of actuating element  Operating principle of the actuating element  Tactile feedback Functional lighting  Yes; Freely configurable colors: Red, green, blue, white, yellow With parameterizable keys  Installation type/mounting  Mounting  Mounting  For mounting on a 16:9 HMI / IPC PRO device (lower part)  Sorewed joint  Rack mounting  No  No  No  Front mounting  No  No  No  Front mounting  DC  Rated value (DC)  permissible range, lower limit (DC)  permissible range, lower limit (DC)  permissible range, uper limit (DC)  permissible range, uper limit (DC)  Input current  Current consumption (rated value)  Power  Active power input, typ.  3.6 W; Additional 0.1 W per operator control with LED or 0.5 W per RGB illuminated pushbutton or 2.6 W per KP12  Interfaces  Number of industrial Ethernet interfaces  PROFINET interfaces  PROFINET interfaces  PROFINET interfaces  PRES interfaces  PRES interfaces  Yes; 1x SIL 2 (two-channel) or 2x SIL 3 (single-channel) emergency stop sensor  Redundancy — MRP Yes  Pegree and class of protection  IP (all-round)  IP 65  Standards, approvals, certificates  CE mark  U. approval	General information		
Version of actuating element Operating principle of the actuating element Functional lighting With parameterizable keys With parameterizable keys With parameterizable keys Mounting Mounting Mounting For mounting on a 16.9 HMI / IPC PRO device (lower part) Mounting Mounting For mounting on a 16.9 HMI / IPC PRO device (lower part)  Screwed joint Rack mounting No No No No No Front mounting RFID reader can be installed Yes; SIMATIC RF200 Access Control Reader RF1060R  Supply voltage Type of supply voltage Rated value (DC) Permissible range, lower limit (DC) Permissible range, lower limit (DC) Permissible range, upper limit (DC) Power  Active power input, typ.  3.6 W; Additional 0.1 W per operator control with LED or 0.5 W per RGB illuminated pushbutton or 2.6 W per KP12  Interfaces Number of industrial Ethernet interfaces Number of PROFINET interfaces PROFIsafe Yes; 1x SIL 2 (two-channel) or 2x SIL 3 (single-channel) emergency stop sensor  Reduraday mode Media redundancy — MRP Yes  Degree and class of protection IP (all-round) IP (all-round) IP 65  Standards, approvals, certificates CE mark Yes	Product type designation	Extension Unit 19" KP12F PN	
Operating principle of the actuating element Functional lighting Yes; Freely configurable colors: Red, green, blue, white, yellow With parameterizable keys Installation type/mounting Mounting Mounting Mounting type Screwed joint Rack mounting No Front mounting No Front mounting No Number of slots for command devices and signaling units RFID reader can be installed Yes; SIMATIC RF200 Access Control Reader RF1060R Supply voltage Type of supply voltage Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) permissible range, upper limit (DC) powor Active power input, typ.  Interfaces Number of industrial Ethernet interfaces Number of PROFINET interfaces PROFisafe  Yes; 1x SIL 2 (two-channel) or 2x SIL 3 (single-channel) emergency stopansor Redundancy mode Media redundancy — MRP Yes Pegree and class of protection IP (all-round) IP (al	Control elements		
Functional lighting With parameterizable keys With parameterizable keys Nes  Installation type/mounting  Mounting Mounti	Version of actuating element	1x Key Panel 12	
With parameterizable keys Installation type/mounting  Mounting Mounting yee Screwed joint Rack mounting No No No Number of slots for command devices and signaling units RFID reader can be installed Yes; SIMATIC RF200 Access Control Reader RF1060R  Supply voltage Type of supp	Operating principle of the actuating element	Tactile feedback	
Nounting type	Functional lighting	Yes; Freely configurable colors: Red, green, blue, white, yellow	
Mounting type Screwed joint  Mounting type Screwed joint  Rack mounting No Front mounting No Number of slots for command devices and signaling units RFID reader can be installed Yes; SIMATIC RF200 Access Control Reader RF1060R  Supply voltage Type of supply voltage Rated value (DC) 24 V permissible range, lower limit (DC) 19.2 V permissible range, upper limit (DC) 28.8 V Input current  Current consumption (rated value) 150 mA; without load  Power  Active power input, typ. 3.6 W; Additional 0.1 W per operator control with LED or 0.5 W per RGB illuminated pushbutton or 2.6 W per KP12  Interfaces  Number of industrial Ethernet interfaces 2; For the construction of lines and rings without external switch Number of PROFINET interfaces Yes; 1x SIL 2 (two-channel) or 2x SIL 3 (single-channel) emergency stop sensor  Redundancy mode  Media redundancy — MRP Yes  Degree and class of protection  IP (all-round) IP65  Standards, approvals, certificates  CE mark Yes	With parameterizable keys	Yes	
Mounting type Rack mounting No No No Number of slots for command devices and signalling units RFID reader can be installed Yes; SIMATIC RF200 Access Control Reader RF1060R  Supply voltage Type of supply voltage DC Rated value (DC) permissible range, lower limit (DC) permissible range, upper limit (DC) permissible ran	Installation type/mounting		
Rack mounting No Front mounting No Number of slots for command devices and signaling units RFID reader can be installed Yes; SIMATIC RF200 Access Control Reader RF1060R  Supply voltage Type of supply voltage DC Rated value (DC) 24 V permissible range, lower limit (DC) 19.2 V permissible range, upper limit (DC) 28.8 V Input current Current consumption (rated value) 150 mA; without load  Power  Active power input, typ. 3.6 W; Additional 0.1 W per operator control with LED or 0.5 W per RGB illuminated pushbutton or 2.6 W per KP12  Interfaces Number of industrial Ethernet interfaces 2; For the construction of lines and rings without external switch Number of PROFINET interfaces 2; Incl. switch  Protocols  PROFIsafe Yes; 1x SIL 2 (two-channel) or 2x SIL 3 (single-channel) emergency stop sensor  Redundancy mode Media redundancy — MRP Yes  Degree and class of protection IP (all-round) IP65  Standards, approvals, certificates CE mark Yes	Mounting	For mounting on a 16:9 HMI / IPC PRO device (lower part)	
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RFID reader can be installed  Supply voltage Type of supply voltage  Rated value (DC)  permissible range, lower limit (DC)  permissible range, upper limit (DC)  permissible range, lower limit (DC)  permissible range, upper limit (DC)  permissible range, lower limit (DC)  permissible range, well as vertical states of the construction of lines and rings without external switch  permissible range, well as vertical states of the construction of lines and	Front mounting	No	
Type of supply voltage  Rated value (DC)  permissible range, lower limit (DC)  permissible range, upper limit (DC)  permis	Number of slots for command devices and signaling units	6	
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) Power  Current consumption (rated value)  Active power input, typ.  3.6 W; Additional 0.1 W per operator control with LED or 0.5 W per RGB illuminated pushbutton or 2.6 W per KP12  Interfaces  Number of industrial Ethernet interfaces Number of PROFINET interfaces Protocols PROFIsafe Yes; 1x SIL 2 (two-channel) or 2x SIL 3 (single-channel) emergency stop sensor  Redundancy mode Media redundancy — MRP Yes  Degree and class of protection IP (all-round) IP65  Standards, approvals, certificates CE mark Yes	RFID reader can be installed	Yes; SIMATIC RF200 Access Control Reader RF1060R	
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)  Power  Active power input, typ.  3.6 W; Additional 0.1 W per operator control with LED or 0.5 W per RGB illuminated pushbutton or 2.6 W per KP12  Interfaces  Number of industrial Ethernet interfaces  Number of PROFINET interfaces  2; For the construction of lines and rings without external switch  Number of PROFINET interfaces  2; Incl. switch  Protocols  PROFIsafe  Yes; 1x SIL 2 (two-channel) or 2x SIL 3 (single-channel) emergency stop sensor  Redundancy mode  Media redundancy  — MRP  Yes  Degree and class of protection  IP (all-round)  IP65  Standards, approvals, certificates  CE mark  Yes	Supply voltage		
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Input current Current consumption (rated value)  Power  Active power input, typ.  3.6 W; Additional 0.1 W per operator control with LED or 0.5 W per RGB illuminated pushbutton or 2.6 W per KP12  Interfaces  Number of industrial Ethernet interfaces 2; For the construction of lines and rings without external switch Number of PROFINET interfaces 2; Incl. switch  Protocols  PROFIsafe Yes; 1x SIL 2 (two-channel) or 2x SIL 3 (single-channel) emergency stop sensor  Redundancy mode Media redundancy — MRP Yes  Degree and class of protection  IP (all-round) IP65  Standards, approvals, certificates CE mark Yes	permissible range, lower limit (DC)	19.2 V	
Current consumption (rated value)  Power  Active power input, typ.  3.6 W; Additional 0.1 W per operator control with LED or 0.5 W per RGB illuminated pushbutton or 2.6 W per KP12  Interfaces  Number of industrial Ethernet interfaces  Number of PROFINET interfaces  Protocols  PROFIsafe  Yes; 1x SIL 2 (two-channel) or 2x SIL 3 (single-channel) emergency stop sensor  Redundancy mode  Media redundancy  — MRP  Yes  Degree and class of protection  IP (all-round)  IP65  Standards, approvals, certificates  CE mark  Yes  13.6 W; Additional 0.1 W per operator control with LED or 0.5 W per RGB illuminated pushbutton or 2.6 W per KP12  IV SIL	permissible range, upper limit (DC)	28.8 V	
Power  Active power input, typ.  3.6 W; Additional 0.1 W per operator control with LED or 0.5 W per RGB illuminated pushbutton or 2.6 W per KP12  Interfaces  Number of industrial Ethernet interfaces  Protocols  PROFINET interfaces  2; For the construction of lines and rings without external switch  2; Incl. switch  Protocols  PROFIsafe  Yes; 1x SIL 2 (two-channel) or 2x SIL 3 (single-channel) emergency stop sensor  Redundancy mode  Media redundancy  — MRP  Pes  Degree and class of protection  IP (all-round)  IP65  Standards, approvals, certificates  CE mark  Yes	Input current		
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Interfaces  Number of industrial Ethernet interfaces  Number of PROFINET interfaces  Protocols  PROFIsafe  Yes; 1x SIL 2 (two-channel) or 2x SIL 3 (single-channel) emergency stop sensor  Redundancy mode  Media redundancy  — MRP  Protocols  Pegree and class of protection  IP (all-round)  Standards, approvals, certificates  CE mark  Yes Protocols  2; For the construction of lines and rings without external switch  2; Incl. switch  Yes; 1x SIL 2 (two-channel) or 2x SIL 3 (single-channel) emergency stop sensor	Power		
Number of industrial Ethernet interfaces  Number of PROFINET interfaces  2; Incl. switch  Protocols  PROFIsafe  Yes; 1x SIL 2 (two-channel) or 2x SIL 3 (single-channel) emergency stop sensor  Redundancy mode  Media redundancy — MRP  Pes  Degree and class of protection  IP (all-round)  Standards, approvals, certificates  CE mark  Yes	Active power input, typ.		
Number of PROFINET interfaces  Protocols  PROFIsafe  Yes; 1x SIL 2 (two-channel) or 2x SIL 3 (single-channel) emergency stop sensor  Redundancy mode  Media redundancy  — MRP  Yes  Degree and class of protection  IP (all-round)  IP65  Standards, approvals, certificates  CE mark  Yes  1 ncl. switch  Yes; 1x SIL 2 (two-channel) or 2x SIL 3 (single-channel) emergency stop sensor  IP (sll - channel)  IP65  Yes	Interfaces		
Protocols  PROFIsafe  Yes; 1x SIL 2 (two-channel) or 2x SIL 3 (single-channel) emergency stop sensor  Redundancy mode  Media redundancy  — MRP  Yes  Degree and class of protection  IP (all-round)  IP65  Standards, approvals, certificates  CE mark  Yes	Number of industrial Ethernet interfaces	2; For the construction of lines and rings without external switch	
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Redundancy mode  Media redundancy — MRP  Pes  Degree and class of protection  IP (all-round)  Standards, approvals, certificates  CE mark  Stop sensor  Yes  Yes	Protocols		
Media redundancy  — MRP  Segree and class of protection  IP (all-round)  Standards, approvals, certificates  CE mark  Yes	PROFIsafe		
— MRP Yes  Degree and class of protection  IP (all-round) IP65  Standards, approvals, certificates  CE mark Yes	Redundancy mode		
Degree and class of protection  IP (all-round)  Standards, approvals, certificates  CE mark  Yes	Media redundancy		
IP (all-round)  Standards, approvals, certificates  CE mark  Yes	— MRP	Yes	
Standards, approvals, certificates  CE mark  Yes	Degree and class of protection		
CE mark Yes	IP (all-round)	IP65	
	Standards, approvals, certificates		
UL approval Yes	CE mark	Yes	
	UL approval	Yes	
cULus Yes	cULus	Yes	

RCM (formerly C-TICK)	Yes
KC approval	Yes
EAC (formerly Gost-R)	Yes; EAC
Suitable for safety functions	Yes; e.g. installation of emergency stop
Ambient conditions	
Ambient temperature during operation	
• min.	0 °C
• max.	50 °C
Ambient temperature during storage/transportation	
• min.	-20 °C
• max.	60 °C
Altitude during operation relating to sea level	
Installation altitude above sea level, max.	2 000 m
Relative humidity	
<ul><li>Operation, max.</li></ul>	90 %; no condensation
Mechanics/material	
Material	
Aluminum	Yes
Enclosure material (front)	
Aluminum	Yes; Knockout covered with black film
Dimensions	
Width	462 mm
Height	99 mm
Depth	100.65 mm
Weights	
Weight (without packaging)	2.7 kg
Scope of supply	
Delivery quantity in pieces	1
Components included	Power supply connector

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last modified: