MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

ABB

ICMK14F1 1SBP260050R1001

CS31 REMOTE INPUT-OUTPUT UNIT

Used with the applicable ABB Advant Controller 31 configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Official manufacturer documentation applicable to ICMK14F1 1SBP260050R1001

Products	Description	Order no.
Centrally extensible remote units with CS31 bus connection	**Only for 50 and 90 series basic units**	
ICMK 14 F1 24VDC	Extensible remote unit with 8 inputs and 6 relay outputs, 24 V d.c. power supply	1SBP260050R1001
ICMK 14 F1 120/230VAC	Extensible remote unit with 8 inputs and 6 relay outputs, 120/230 V AC power supply	1SBP260051R1001
ICMK 14 N1 24VDC	Extensible remote unit with 8 inputs and 6 transistor outputs, 24 V d.c. power supply	1SBP260052R1001
Central extensions without CS31 bus connection	**For 40 and 50 series basic units and centrally extensible remote units with CS31 bus connection**	
XI 16 E1	Digital extension with 16 isolated inputs, powered by the basic unit or remote unit	1SBP260100R1001
XO 08 R1	Digital extension with 8 relay outputs, powered by the basic unit or remote unit	1SBP260101R1001
XC 08 L1	Digital extension with 8 channels, configurable as inputs or transistor outputs, 24 V d.c./0.5 A, powered by the basic unit or remote unit	1SBP260102R1001
XK 08 F1	Digital extension with 4 inputs and 4 relay outputs, powered by the basic unit or remote unit	1SBP260102R1001
XM 06 B5	Analog extension with 4 inputs configurable for current/voltage/Pt 100/Pt 1000) and 2 outputs configurable for current/voltage resolution 12 bits, powered by the basic unit or remote unit	1SBP260103R1001
30 series digital remote units with CS31 bus connection	**For 50 and 90 series basic units**	
ICSI 08 E4 230VAC	Digital remote unit with 8 isolated inputs 230 V a.c., 230 V a.c. power supply	FPR 331 6401 R0016
ICSO 08 Y1 24VDC	Digital remote unit with 8 transistor outputs 24 V d.c./2 A, 24 V d.c. power supply	FPR 331 1101 R1022
30 series plug-in base	**For 30 series remote units (with CS31 bus connection)**	
ECZ	Plug-in base for mounting series 30 remote units	FPR 370 0001 R0001

3.4.2 Technical specifications of the centrally extensible remote units

	ICMK 14 F1 24 V d.c.	ICMK 14 F1 120/230 V a.c.	ICMK 14 N1 24 V d.c.
- Weight	400 g	800 g	400 g
Power supply			
- Mains voltage:			
nominal value	24 V d.c.	120 or 230 V a.c.	24 V d.c.
admissible range	19.2 to 30 V	97.75 to 126.5 V or 195.5 to 253 V	19.2 to 30 V
- Consumption:			
unit alone (typical)	80 mA	30 mA	80 mA
maximum configuration (typical)	400 mA	100 mA	400 mA
- Polarity reversal protection	yes	-	yes
- Integrated power supply 24 V d.c. for the inputs:	no	yes	no
range of voltage value	-	19.2 to 30 V	-
output current	-	400 mA	-
short circuit protection	-	yes	-
- Dissipation	5 W	10 W	6 W
Integrated digital inputs			
- Number of inputs	8	8	8
- Isolation of inputs	1500 V a.c.	1500 V a.c.	1500 V a.c.
- Input types	PNP and NPN	PNP and NPN	PNP and NPN
- Input voltage:			
nominal value	24 V d.c.	24 V d.c.	24 V d.c.
signal at 0 (IEC 1131-2)	0 to + 5 V	0 to + 5 V	0 to + 5 V
signal at 1 (IEC 1131-2)	+ 15 to + 30 V	+ 15 to + 30 V	+ 15 to + 30 V
- Input current at 24 V d.c.:			
inputs Exx,02 to Exx,07	7 mA	7 mA	7 mA
inputs Exx,00 and Exx,01	9 mA	9 mA	9 mA
- Signal delay time	5 ms	5 ms	5 ms
- Cable length:			
unshielded	300 m	300 m	300 m
shielded	500 m	500 m	500 m

	ICMK 14 F1 24 V d.c.	ICMK 14 F1 120/230 V a.c.	ICMK 14 N1 24 V d.c.
Integrated outputs			
- Number of outputs	6 relays	6 relays	6 transistors
- Isolated outputs (test voltage)	1500 Vrms 1 min	1500 Vrms 1 min	1500 V a.c.
- Output current/channel			
Direct voltage 24 V d.c.	2 A	2 A	0.5 A 1 A for Axx,00 and Axx,01
Alternating current 24 to 230 V a.c.	2 A AC-1 0.5 A AC-15	2 A AC-1 0.5 A AC-15	
- Total load current	6 x 2 A	6 x 2 A	4 x 0.5 A + 2 x 1 A
- Output leakage current	-	-	< 200 µA
- Leakage voltage	-	-	0.2 V max. 500 mA
- Minimum cut-off values	10 mA under 12 V d.c.	10 mA under 12 V d.c.	12 V
- Breaking power under 120 V a.c. (contact rating code B300) (UL)	2 A	2 A	
- Breaking power under 250 V a.c. (contact rating code B300) (UL)	2 A (1.5 A acc. to UL)	2 A (1.5 A acc. to UL)	
- Number of groups	2 (2+4)	2 (2+4)	
- Switching frequency			
for resistive loads	< 1 Hz	< 1 Hz	< 5 kHz
for inductive loads	< 0.2 Hz	< 0.2 Hz	
for lamps	< 0.2 Hz	< 0.2 Hz	
- Maximum number of switches:			
for AC-1	1 million	1 million	-
for AC-15	100.000	100.000	
- Short circuit and overload protection	external	external	yes: thermic
- Surge voltage protection	external	external	yes: by transient voltage suppression
- Outputs diagnosis	-	-	Overload and short circuit
- Cable length:			
unshielded	150 m	150 m	150 m
shielded	500 m	500 m	500 m