

ABB JOKAB SAFETY, MAY 2018

From ABB older relays to ABB Sentry relays

Conversion table

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Benefits of the new range

Feature	Former Jokab range	Sentry	Benefit
Number of models	57 order codes	14 order codes	Less stock.
Timer Accuracy	± 20%	±1%	Higher quality and optimized adjustment.
Timer interval	0-3 seconds	0-999 seconds (one decimal below 100 sec)	The Sentry safety relays can be used in new applications.
New function	-	On-delay	The Sentry safety relays can be used in new applications.
Rated output current	AC15: up to 3A DC13: up to 2A	AC15: Up to 5A DC13: Up to 6A	The Sentry safety relays can be used in new applications.
Size (width)	45 mm for 3NO + 1NC and 2NO + 2NO	22.5 mm for 3NO + 1NC and 2NO + 2NO	Less space necessary in cabinet.
Multi-voltage	Different models for +24 VDC, 24 VAC, 115 VAC or 230 VAC	Only two models: +24 VDC or 85-265 VAC/120-375 VDC	Less stock.
New function 1	-	Universal relays and TSR10: display with error codes, error log, password protection	Minimized troubleshooting.
New function 2	-	Multi-reset: reset up to 10 relays with 1 reset button and the correct indication (no disturbance between the inter-connected safety relays)	Simplifies engineering and installation.
New function 3	-	Specified for AC1 3-phases	The Sentry safety relays can be used in new applications.
Housing	Gray	Yellow, own design.	Own design differentiates us from competition.

Conversion table JSBR4, JSBT, JSHT, JSR1T, JSR3T

Order code	Description	Replaced by	Order code	Comments
2TLA010002R0000	JSBR4* 24DC Safety relay	Sentry SSR20	2TLA010051R0000	USR10 (2TLA010070R0000) is also a possible replacement
2TLA010002R0200	JSBR4 24AC Safety relay	No replacement	-	
2TLA010002R0400	JSBR4* 115AC Safety relay	Sentry SSR20M	2TLA010051R0100	Sentry SSR20M can only be used for “two-hand devices” applications. For other applications, contact your local ABB Jokab Safety representative.
2TLA010002R0500	JSBR4* 230AC Safety relay	Sentry SSR20M	2TLA010051R0100	
2TLA010004R0000	JSBT4 24DC Safety relay	No replacement	-	
2TLA010005R0100	JSBT5* 24AC/DC Safety relay	Sentry BSR10	2TLA010040R0000	No replacement for 24 VAC
2TLA010005R0700	JSBT5* 12VDC Safety relay	No replacement	-	
2TLA010005R1100	JSBT5T* 24AC/DC Safety relay	Sentry TSR20	2TLA010061R0100	No replacement for 24 VAC
2TLA010011R0000	JSHT1A* 24DC Time module	Sentry TSR10	2TLA010060R0000	Choose function time reset on TSR10
2TLA010011R1000	JSHT1B* 24DC Time module	Sentry TSR10	2TLA010060R0000	Choose function time reset on TSR10
2TLA010012R0000	JSHT2A* 24DC Time module	Sentry TSR10	2TLA010060R0000	Choose function time bypass on TSR10
2TLA010012R1000	JSHT2B* 24DC Time module	Sentry TSR10	2TLA010060R0000	Choose function time bypass on TSR10
2TLA010012R2000	JSHT2C* 24DC Time module	Sentry TSR10	2TLA010060R0000	Choose function time bypass on TSR10
2TLA010015R0000	JSR1T* 0s 24DC Expansion relay	Sentry BSR23	2TLA010041R0600	
2TLA010015R0500	JSR1T* 1.5s 24DC Expansion relay	Sentry TSR20	2TLA010061R0000	
2TLA010015R0600	JSR1T* 8s 24DC Expansion relay	Sentry TSR10	2TLA010060R0000	
2TLA010015R1000	JSR1T* 0.5s 24DC Expansion relay	Sentry TSR20	2TLA010061R0000	
2TLA010015R2000	JSR1T* 10s 24DC Expansion relay	Sentry TSR10	2TLA010060R0000	
2TLA010015R3000	JSR1T* 1s 24DC Expansion relay	Sentry TSR10	2TLA010060R0000	
2TLA010015R4000	JSR1T* 2s 24DC Expansion relay	Sentry TSR10	2TLA010060R0000	
2TLA010015R5000	JSR1T* 3s 24DC Expansion relay	Sentry TSR10	2TLA010060R0000	
2TLA010015R6000	JSR1T* 5s 24DC Expansion relay	Sentry TSR10	2TLA010060R0000	
2TLA010017R0100	JSR3T* 24AC/DC Expansion relay	Sentry TSR10	2TLA010060R0000	No replacement for 24 VAC. TSR10 does not need to be monitored by another device like JSR3T.

* Click on the red link to get to the corresponding Key Feature comparison

Conversion table JSBRT11, RT6, JSR2A

Order code	Description	Replaced by	Order code	Comments
2TLA010025R0000	JSBRT11* 24DC Safety relay	1 x Sentry SSR10 + 2 x Sentry BSR23	1 x 2TLA010050R0000 + 2 x 2TLA010041R0600	If two-channel antivalent contact or contact mat or safety edge as input, use USR10 (2TLA010070R0000) instead of SSR10
2TLA010025R0400	JSBRT11* 115AC Safety relay	3 x Sentry SSR10M	3 x 2TLA010050R0100	Sentry SSR10M can only be used for “two channel equivalent contacts” applications. For other applications, use a power supply to 24VDC and 3 x USR10 (2TLA010070R0000) instead of SSR10M
2TLA010025R0500	JSBRT11* 230AC Safety relay	3 x Sentry SSR10M	3 x 2TLA010050R0100	Sentry SSR10M can only be used for “two channel equivalent contacts” applications. For other applications, use a power supply to 24VDC and 3 x USR10 (2TLA010070R0000) instead of SSR10M
2TLA010026R0000	RT6* 24DC Safety relay	Sentry SSR10	2TLA010050R0000	If two-channel antivalent contact or contact mat or safety edge as input, use USR10 (2TLA010070R0000) instead of SSR10
2TLA010026R0200	RT6 24AC Safety relay	No replacement	-	
2TLA010026R0400	RT6* 115AC Safety relay	Sentry SSR10M	2TLA010050R0100	Sentry SSR10M can only be used for “two channel equivalent contacts” applications. For other applications, use a power supply to 24VDC and USR10 (2TLA010070R0000) instead of SSR10M
2TLA010026R0500	RT6* 230AC Safety relay	Sentry SSR10M	2TLA010050R0100	
2TLA010027R0100	JSR2A* 24AC/DC Expansion relay	Sentry BSR23	2TLA010041R0600	No replacement for 24 VAC
2TLA010027R0400	JSR2A* 115AC Expansion relay	Sentry SSR10M	2TLA010050R0100	Dual channel expansion only. Quite different connection. SSR10M does not need to be monitored by another device like JSR2A.
2TLA010027R0500	JSR2A* 230AC Expansion relay	Sentry SSR10M	2TLA010050R0100	

* Click on the red link to get to the corresponding Key Feature comparison

Conversion table RT7, RT9

Order code	Description	Replaced by	Order code	Comments
2TLA010028R1000	RT7B* 24DC Safety relay up to 3s	<i>Sentry SSR32 for off-delay 0.5s or Sentry SSR42 for off-delay 1.5s</i>	<i>2TLA010052R0400 or 2TLA010053R0400</i>	If another delay is necessary, please contact your local ABB Jokab Safety representative. If two-channel antivalent contact or contact mat or safety edge as input, use USR22 (2TLA010070R0400).
2TLA010028R1400	RT7B* 115AC Safety relay up to 3s	<i>Sentry SSR10M + Sentry TSR20M</i>	<i>2TLA010050R0100 + 2TLA010061R0100</i>	The proposed solution offers a 0.5 and 1.5 sec off-delay. If another delay is necessary, please contact your local ABB Jokab Safety representative. Sentry SSR10M can only be used for “two channel equivalent contacts” applications. For other applications, use a power supply to 24VDC and USR22 (2TLA010070R0400).
2TLA010028R1500	RT7B* 230AC Safety relay up to 3s	<i>Sentry SSR10M + Sentry TSR20M</i>	<i>2TLA010050R0100 + 2TLA010061R0100</i>	
2TLA010028R2000	RT7A* 24DC Safety relay up to 1.5s	<i>Sentry SSR32 for off-delay 0.5s or Sentry SSR42 for off-delay 1.5s</i>	<i>2TLA010052R0400 or 2TLA010053R0400</i>	If another delay is necessary, please contact your local ABB Jokab Safety representative. If two-channel antivalent contact or contact mat or safety edge as input, use USR22 (2TLA010070R0400).
2TLA010028R2400	RT7A* 115AC Safety relay up to 1.5s	<i>Sentry SSR10M + Sentry TSR20M</i>	<i>2TLA010050R0100 + 2TLA010061R0100</i>	The proposed solution offers a 0.5 and 1.5 sec off-delay. If another delay is necessary, please contact your local ABB Jokab Safety representative. Sentry SSR10M can only be used for “two channel equivalent contacts” applications. For other applications, use a power supply to 24VDC and USR22 (2TLA010070R0400).
2TLA010028R2500	RT7A* 230AC Safety relay up to 1.5s	<i>Sentry SSR10M + Sentry TSR20M</i>	<i>2TLA010050R0100 + 2TLA010061R0100</i>	
2TLA010029R0000	RT9* 24DC Safety relay	Sentry SSR10	2TLA010050R0000	If two-channel antivalent contact or contact mat or safety edge as input, use USR10 (2TLA010070R0000).

* Click on the red link to get to the corresponding Key Feature comparison

Conversion table E1T, BT50(T), BT51(T)

Order code	Description	Replaced by	Order code	Comments
2TLA010030R0000	E1T* 0s 24DC Expansion relay	Sentry BSR23	2TLA010041R0600	
2TLA010030R1000	E1T* 0.5s 24DC Expansion relay	Sentry TSR20	2TLA010061R0000	TSR20 does not need to be monitored by another device like E1T.
2TLA010030R2000	E1T* 1s 24DC Expansion relay	Sentry TSR10	2TLA010060R0000	TSR10 does not need to be monitored by another device like E1T.
2TLA010030R3000	E1T* 1.5s 24DC Expansion relay	Sentry TSR20	2TLA010061R0000	TSR20 does not need to be monitored by another device like E1T.
2TLA010030R4000	E1T* 2s 24DC Expansion relay	Sentry TSR10	2TLA010060R0000	TSR10 does not need to be monitored by another device like E1T.
2TLA010030R5000	E1T* 3s 24DC Expansion relay	Sentry TSR10	2TLA010060R0000	TSR10 does not need to be monitored by another device like E1T.
2TLA010033R0000	BT50* 24DC Safety relay	Sentry BSR10	2TLA010040R0000	
2TLA010033R1000	BT50T* 24DC Safety relay	Sentry TSR20	2TLA010061R0000	
2TLA010033R2000	BT51* 24DC Safety relay	Sentry BSR11	2TLA010040R0200	
2TLA010033R3000	BT51T* 24DC Safety relay	Sentry TSR20	2TLA010061R0000	TSR20 has 3NO+1NC. BT51T has 4NO.

* Click on the red link to get to the corresponding Key Feature comparison

Conversion table C571, C572, C573, C575, C576, C577, C579, C581

Order code	Description	Replaced by	Order code	Comments
1SAR501020R0001	C571 24VAC/VDC, 2NO	Sentry BSR10	2TLA010040R0000	Sentry BSR10 has 3NO + 1NC No replacement for 24 VAC
1SAR501020R0003	C571 24 VDC, 2NO	Sentry BSR10	2TLA010040R0000	Sentry BSR10 has 3NO + 1NC
1SAR501020R0004	C571-AC 115 VAC, 2NO	Sentry SSR10M	2TLA010050R0100	Sentry SSR10M has 3NO + 1NC
1SAR501020R0005	C571-AC 230 VAC, 2NO	Sentry SSR10M	2TLA010050R0100	Sentry SSR10M has 3NO + 1NC
1SAR501031R0001	C573 24 VAC/VDC, 3NO + 1NC	Sentry BSR10	2TLA010040R0000	Sentry BSR10 has 3NO + 1NC No replacement for 24 VAC
1SAR501032R0002	C572 24 VAC, 3NO + 2NC	No replacement	-	
1SAR501032R0003	C572 24 VDC, 3NO + 2NC	Sentry SSR10	2TLA010050R0000	Sentry SSR10 has 3NO + 1NC
1SAR501032R0004	C572 115 VAC, 3NO + 2NC	Sentry SSR10M	2TLA010050R0100	Sentry SSR10M has 3NO + 1NC
1SAR501032R0005	C572 230 VAC, 3NO + 2NC	Sentry SSR10M	2TLA010050R0100	Sentry SSR10M has 3NO + 1NC
1SAR501120R0001	C576 24 VAC/VDC, 2NO, auto start	Sentry SSR10	2TLA010050R0000	Sentry SSR10 has 3NO + 1NC No replacement for 24 VAC
1SAR501220R0001	C577 24 VAC/VDC, 2 No, monitored start	Sentry SSR10	2TLA010050R0000	Sentry SSR10 has 3NO + 1NC No replacement for 24 VAC
1SAR501331R0001	C581 24 VAC/VDC, 3NO + 1NC	Sentry SSR10	2TLA010050R0000	Sentry SSR10 has 3NO + 1NC No replacement for 24 VAC
1SAR501331R0004	C581 115 VAC, 3NO + 1NC	Sentry SSR10M	2TLA010050R0100	Sentry SSR10M has 3NO + 1NC
1SAR501331R0005	C581 230 VAC, 3NO + 1NC	Sentry SSR10M	2TLA010050R0100	Sentry SSR10M has 3NO + 1NC
1SAR502040R0001	C579 expansion 24 VAC/VDC, 4NO	Sentry BSR23	2TLA010041R0600	Sentry SSR10 has 3NO + 1NC No replacement for 24 VAC
1SAR502040R0004	C579-AC expansion 115 VAC, 4NO	Sentry SSR10M	2TLA010050R0100	Sentry SSR10M has 3NO + 1NC
1SAR502040R0005	C579-AC expansion 230 VAC, 4NO	Sentry SSR10M	2TLA010050R0100	Sentry SSR10M has 3NO + 1NC
1SAR504022R0002	C575 24 VAC, 2NO + 2NC	No replacement		
1SAR504022R0003	C575 24 VDC, 2NO + 2NC	Sentry SSR20	2TLA010051R0000	Sentry SSR20 has 3NO + 1NC
1SAR504022R0004	C575 115 VAC, 2NO + 2NC	Sentry SSR20M	2TLA010051R0100	Sentry SSR20M has 3NO + 1NC
1SAR504022R0005	C575 230 VAC, 2NO + 2NC	Sentry SSR20M	2TLA010051R0100	Sentry SSR20M has 3NO + 1NC

Conversion table C574

Order code	Description	Replaced by	Order code	Comments
1SAR533141R0002	C574 24 VAC, 2NO + 2NO delayed + 1NC	No replacement		
1SAR533141R0003	C574 24 VDC, 2NO + 2NO delayed + 1NC (Auto reset - Off-delay 0,5-30 s)	<i>Sentry SSR32 for off-delay 0.5s</i> or <i>Sentry SSR42 for off-delay 1.5s</i>	<i>2TLA010052R0400</i> or <i>2TLA010053R0400</i>	The proposed solution offers a 0.5 or 1.5 sec off-delay. If another delay is necessary, please contact your local ABB Jokab Safety representative.
1SAR533141R0004	C574 115 VAC, 2NO + 2NO delayed + 1NC (Auto reset - Off-delay 0,5-30 s)	<i>Sentry SSR10M</i> + <i>Sentry TSR20M</i>	<i>2TLA010050R0100</i> + <i>2TLA010061R0100</i>	The proposed solution offers a 0.5 and 1.5 sec off-delay. If another delay is necessary, please contact your local ABB Jokab Safety representative.
1SAR533141R0005	C574 230 VAC, 2NO + 2NO delayed + 1NC (Auto reset - Off-delay 0,5-30 s)	<i>Sentry SSR10M</i> + <i>Sentry TSR20M</i>	<i>2TLA010050R0100</i> + <i>2TLA010061R0100</i>	The proposed solution offers a 0.5 and 1.5 sec off-delay. If another delay is necessary, please contact your local ABB Jokab Safety representative.
1SAR533241R0002	C574 24 VAC, 2NO + 2NO delayed + 1NC	No replacement		
1SAR533241R0003	C574 24 VDC, 2NO + 2NO delayed + 1NC (Manual reset - Off-delay 0,5-30 s)	<i>Sentry SSR32 for off-delay 0.5s</i> or <i>Sentry SSR42 for off-delay 1.5s</i>	<i>2TLA010052R0400</i>	The proposed solution offers a 0.5 or 1.5 sec off-delay. If another delay is necessary, please contact your local ABB Jokab Safety representative.
1SAR533241R0004	C574 115 VAC, 2NO + 2NO delayed + 1NC (Manual reset - Off-delay 0,5-30 s)	<i>Sentry SSR10M</i> + <i>Sentry TSR20M</i>	<i>2TLA010050R0100</i> + <i>2TLA010061R0100</i>	The proposed solution offers a 0.5 and 1.5 sec off-delay. If another delay is necessary, please contact your local ABB Jokab Safety representative.
1SAR533241R0005	C574 230 VAC, 2NO + 2NO delayed + 1NC (Manual reset - Off-delay 0,5-30 s)	<i>Sentry SSR10M</i> + <i>Sentry TSR20M</i>	<i>2TLA010050R0100</i> + <i>2TLA010061R0100</i>	The proposed solution offers a 0.5 and 1.5 sec off-delay. If another delay is necessary, please contact your local ABB Jokab Safety representative.

JSBR4 - Key feature comparison

JSBR4



Sentry SSR20



Sentry USR10



Best of the class

Width x depth x height	45 x 120 x 74 mm	22.5 x 120 x 120 mm	22.5 x 120 x 120 mm
Functional safety data	PL e, SIL 3, Cat. 4	PL e, SIL 3, Cat. 4	PL e, SIL 3, Cat. 4
Supply voltage	+24 VDC, 24 VAC, 115 VAC or 230 VAC	SSR20: +24 VDC SSR20M: 85-265 VAC/120-375 VDC	+24 VDC
Input types	Two-hand	Two-hand	1 & 2 channels, OSSD, Two-hand, contact mats
Number of safety outputs	3NO + 1NC	3NO + 1NC	3NO + 1NC
Rated output current	AC15: 2 A – DC13: 1 A	AC15: 5 A – DC13: 6 A	AC15: 5 A – DC13: 6 A
Manual / auto reset	Manual reset	Manual and auto reset selectable by switch	Manual and auto reset selectable by buttons and display
Timer functions	-	-	On-delay, off-delay, time bypass, time reset
Timer range / Accuracy	-	-	0-999 sec, Accuracy \pm 1%
Other functions	Test / Start	Test / Start	Test / Start Error codes, error log, password protection
Approvals	cCSAus, TÜV, CCC	cULus, TÜV, CCC	cULus, TÜV, CCC
Diagnostic	3 LEDs	3 RGB LEDs	3 RGB LEDs Display with error codes and error log
Connection blocks	Screws, detachable	Screws, detachable	Screws, detachable
Accessories	-	Coding kit for terminal block	Coding kit for terminal block

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JSBT5 - Key feature comparison

JSBT5



Sentry BSR10



Best of the class

Width x depth x height	22.5 x 99 x 82 mm	22.5 x 120 x 120 mm
Functional safety data	PL e, SIL 3, Cat. 4	PL e, SIL 3, Cat. 4
Supply voltage	+12 VDC, 24 VAC/VDC	+24 VDC
Input types	1 & 2 channels (No monitoring of two-channel fault)	1 & 2 channels (No monitoring of two-channel fault)
Number of safety outputs	3NO + 1NC	3NO + 1NC
Rated output current	AC15: 2 A – DC13: 1 A	AC15: 5 A – DC13: 6 A
Manual / auto reset	-	-
Timer functions	-	-
Timer range / Accuracy	-	-
Other functions	Test / Start	Test / Start
Approvals	cCSAus, TÜV	cULus, TÜV, CCC
Diagnostic	1 LED	3 LEDs
Connection blocks	Screws, non-detachable	Screws, detachable
Accessories	-	Coding kit for terminal block

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JSBT5T - Key feature comparison

JSBT5T



Sentry TSR20



Best of the class

Width x depth x height	22.5 x 99 x 82 mm	22.5 x 120 x 120 mm
Functional safety data	PL e, SIL 3, Cat. 4	PL e, SIL 3, Cat. 4
Supply voltage	24 VAC/VDC	+24 VDC
Input types	1 & 2 channels (equivalent) (No monitoring of two-channel fault)	1 & 2 channels (equivalent), OSSD
Number of safety outputs	3NO + 1NC	3NO + 1NC
Rated output current	AC15: 2 A – DC13: 1 A	AC15: 5 A – DC13: 6 A
Manual / auto reset	-	-
Timer functions	Off-delay	Off-delay
Timer range / Accuracy	0.5s/ Accuracy \pm 20%	0.5 or 1.5s selectable by switch / Accuracy < 1 %
Other functions	Test / Start	Test / Start
Approvals	cCSAus, TÜV	cULus, TÜV, CCC
Diagnostic	1 LED	3 RGB LEDs
Connection blocks	Screws, non-detachable	Screws, detachable
Accessories	-	Coding kit for terminal block

[Back to the conversion table – JSBT5](#)

JSHT - Key feature comparison

JSHT



Sentry TSR10



Best of the class

Width x depth x height	45 x 120 x 74 mm	22.5 x 120 x 120 mm
Functional safety data	PL e, SIL 3, Cat. 4	PL e, SIL 3, Cat. 4
Supply voltage	+24 VDC	+24 VDC
Input types	1 & 2 channels (equivalent)	1 & 2 channels (equivalent), OSSD
Number of safety outputs	1NO + 1NO	3NO + 1NC
Rated output current	AC15: 3 A – DC13: 2 A	AC15: 5 A – DC13: 6 A
Manual / auto reset	-	-
Timer functions	JSHT1: time reset JSHT2: time bypass	On-delay, off-delay, time reset, time bypass.
Timer range / Accuracy	Discrete values between 0.2 and 40 sec / Accuracy \pm 20%	0 – 999 sec / Accuracy \pm 1%
Other functions	Test / Start	Test / Start Configuration with buttons and display
Approvals	cCSAus, TÜV	cULus, TÜV, CCC
Diagnostic	3 LEDs	3 RGB LEDs Display with error codes and error log
Connection blocks	Screws, non-detachable	Screws, detachable
Accessories	-	Coding kit for terminal block

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JSR1T - Key feature comparison

JSR1T



Sentry BSR23



Sentry TSR10



Sentry TSR20



Best of the class

Width x depth x height	45 x 120 x 74 mm	22.5 x 120 x 120 mm	22.5 x 120 x 120 mm	22.5 x 120 x 120 mm
Functional safety data	PL e, SIL 3, Cat. 4	PL e, SIL 3, Cat. 4	PL e, SIL 3, Cat. 4	PL e, SIL 3, Cat. 4
Supply voltage	+24 VDC	+24 VDC	+24 VDC	+24 VDC
Input types	1 & 2 channels (equivalent)	1 & 2 channels (equivalent) must be monitored by another device	1 & 2 channels (equivalent), OSSD	1 & 2 channels (equivalent), OSSD
Number of safety outputs	4NO + 1NC	4NO + 1NC	3NO + 1NC	3NO + 1NC
Rated output current	AC15: 2 A – DC13: 1 A	AC15: 5 A – DC13: 6 A	AC15: 5 A – DC13: 6 A	AC15: 5 A – DC13: 6 A
Manual / auto reset	-	-	-	-
Timer functions	Off-delay	-	On-delay, off-delay, time reset, time bypass	Off-delay
Timer range / Accuracy	0, 0.5, 1, 1.5, 2, 3, 5, 8 or 10 sec Accuracy ± 20%	-	0 – 999 s Accuracy ± 1%	0.5s or 1.5s selectable by switch Accuracy ± 1%
Other functions	-	-	Test / Start Configuration by buttons and display	Test / Start
Approvals	cCSAus, TÜV	cULus, TÜV, CCC	cULus, TÜV, CCC	cULus, TÜV, CCC
Diagnostic	3 LEDs	3 LEDs	3 RGB LEDs Display w/ error codes and error log	3 RGB LEDs
Connection blocks	Screws, detachable	Screws, detachable	Screws, detachable	Screws, detachable
Accessories	-	Coding kit for terminal block	Coding kit for terminal block	Coding kit for terminal block

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JSR3T - Key feature comparison

JSR3T



Sentry TSR10



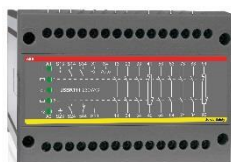
Best of the class

Width x depth x height	22.5 x 99 x 82 mm	22.5 x 120 x 120 mm
Functional safety data	PL e, SIL 3, Cat. 4	PL e, SIL 3, Cat. 4
Supply voltage	+24 VAC/VDC	+24 VDC
Input types	1 & 2 channels (equivalent)	1 & 2 channels (equivalent), OSSD
Number of safety outputs	1NO + 1NO	3NO + 1NC
Rated output current	AC15: 3 A – DC13: 2 A	AC15: 5 A – DC13: 6 A
Manual / auto reset	-	-
Timer functions	Off-delay	On-delay, off-delay, time reset, time bypass
Timer range / Accuracy	0.5, 1.5, 3, 4, 6.5, 7.5, 9, or 10 sec / Accuracy \pm 20%	0 – 999 sec / Accuracy \pm 1%
Other functions	- Trim potentiometer with up 30% time reduction.	Test / Start Configuration by buttons and display
Approvals	cCSAus, TÜV	cULus, TÜV, CCC
Diagnostic	1 LED	3 RGB LEDs Display with error codes and error log
Connection blocks	Screws, non-detachable	Screws, detachable
Accessories	-	Coding kit for terminal block

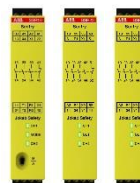
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JSBRT11 - Key feature comparison

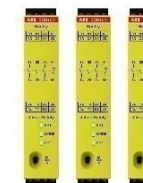
JSBRT11



Sentry SSR10 + 2 Sentry BSR23



3 x Sentry SSR10M



Best of the class

Width x depth x height	100 x 118 x 72 mm	67.5 x 120 x 120 mm	67.5 x 120 x 120 mm
Functional safety data	PL e, SIL 3, Cat. 4	PL e, SIL 3, Cat. 4	PL e, SIL 3, Cat. 4
Supply voltage	+24 VDC, 115 VAC or 230 VAC	+24 VDC	85-265 VAC/120-375 VDC
Input types	1 & 2 channels (antivalent), OSSD, contact mats	1 & 2 channels (equivalent), OSSD	2 channels (equivalent)
Number of safety outputs	7NO + 1NC	8NO + 3NC	7NO + 3NC
Rated output current	AC15: 2 A – DC13: 1 A	AC15: 5 A – DC13: 6 A	AC15: 5 A – DC13: 6 A
Manual / auto reset	Manual or auto reset selectable by connection (hardwire)	Manual or auto reset selectable by switch on SSR10	Manual or auto reset selectable by switch on each unit
Timer functions	-	-	-
Timer range / Accuracy	-	-	-
Other functions	Test / Start	Test / Start	Test / Start
Approvals	cCSAus, TÜV	cULus, TÜV, CCC	cULus, TÜV, CCC
Diagnostic	5 LEDs	3 LEDs on each unit	3 RGB LEDs on each unit
Connection blocks	Screws, detachable	Screws, detachable	Screws, detachable
Accessories	-	Coding kit for terminal block	Coding kit for terminal block

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RT6 - Key feature comparison

RT6



Sentry SSR10



Sentry USR10



Best of the class

Width x depth x height	45 x 120 x 84 mm	22.5 x 120 x 120 mm	22.5 x 120 x 120 mm
Functional safety data	PL e, SIL 3, Cat. 4	PL e, SIL 3, Cat. 4	PL e, SIL 3, Cat. 4
Supply voltage	+24 VDC, 24 VAC, 115 VAC or 230 VAC	SSR10: +24 VDC SSR10M: 85-265 VAC/120-375 VDC	+24 VDC
Input types	1 & 2 channels (equivalent & antivalent), OSSD, contact mats	SSR10: 1 & 2 channels (equivalent), OSSD SSR10M: 2 channels (equivalent)	1 & 2 channels (equivalent & antivalent), OSSD, Two-hand, contact mats
Number of safety outputs	3NO + 1NC	3NO + 1NC	3NO + 1NC
Rated output current	AC15: 2 A – DC13: 1 A	AC15: 5 A – DC13: 6 A	AC15: 5 A – DC13: 6 A
Manual / auto reset	Manual or auto reset selectable by connection (hardwire)	Manual or auto reset selectable by switch	Manual or auto reset selectable by buttons and display
Timer functions	-	-	On-delay, off-delay, time bypass, time reset
Timer range / Accuracy	-	-	0-999 sec, Accuracy ± 1%
Other functions	Test / Start Info output Y24	Test / Start	Test / Start Error codes, error log, password protection
Approvals	cCSAus, TÜV, CCC	cULus, TÜV, CCC	cULus, TÜV, CCC
Diagnostic	5 LEDs	3 RGB LEDs	3 RGB LEDs Display with error codes and error log
Connection blocks	Screws, detachable	Screws, detachable	Screws, detachable
Accessories	-	Coding kit for terminal block	Coding kit for terminal block

[Back to conversion table – RT6](#)

JSR2A - Key feature comparison

JSR2A



Sentry BSR23



Sentry SSR10M



Best of the class

Width x depth x height	45 x 120 x 74 mm	22.5 x 120 x 120 mm	22.5 x 120 x 120 mm
Functional safety data	PL e, SIL 3, Cat. 4	PL e, SIL 3, Cat. 4	PL e, SIL 3, Cat. 4
Supply voltage	24 VAC/VDC, 115 VAC, 230 VAC	+24 VDC	SSR10M: 85-265 VAC/120-375 VDC
Input types	1 & 2 channels (equivalent)	1 & 2 channels (equivalent) (must be monitored by another device)	2 channels (equivalent)
Number of safety outputs	4NO + 1NC	4NO + 1NC	3NO + 1NC
Rated output current	AC15: 4 A – DC13: 1.2 A Resistive load up to 10A / 250V	AC15: 5 A – DC13: 6 A	AC15: 5 A – DC13: 6 A
Manual / auto reset	-	-	Manual and auto reset selectable by switch
Timer functions	-	-	-
Timer range / Accuracy	-	-	-
Other functions	-	-	Test / Start
Approvals	cCSAus, TÜV	cULus, TÜV, CCC	cULus, TÜV, CCC
Diagnostic	3 LEDs	3 LEDs	3 RGB LEDs
Connection blocks	Screws, detachable	Screws, detachable	Screws, detachable
Accessories	-	Coding kit for terminal block	Coding kit for terminal block

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RT7 - Key feature comparison

RT7



**Sentry SSR32
Sentry SSR42**



**Sentry SSR10M + Sen-
try TSR20M**



Sentry USR22



Best of the class

Width x depth x height	45 x 120 x 84 mm	22.5 x 120 x 120 mm	45 x 120 x 120 mm	22.5 x 120 x 120 mm
Functional safety data	PL e, SIL 3, Cat. 4	PL e, SIL 3, Cat. 4	PL e, SIL 3, Cat. 4	PL e, SIL 3, Cat. 4
Supply voltage	+24 VDC, 115 VAC or 230 VAC	+24 VDC	85-265 VAC/120-375 VDC	+24 VDC
Input types	1 & 2 channels (equivalent & anti-valent), OSSD, contact mats	1 & 2 channels (equivalent), OSSD	2 channels (equivalent)	1 & 2 channels (equivalent & anti-valent), OSSD, Two-hand, contact mats
Number of safety outputs	2NO + 2NO	2NO + 2NO	1NO+1NC + delayed (3NO+1NC)	2NO + 2NO
Rated output current	AC15: 2 A – DC13: 1 A	AC15: 3 A – DC13: 3 A	AC15: 5 A – DC13: 6 A	AC15: 3 A – DC13: 3 A
Manual / auto reset	Manual or auto reset selectable by connection (hardwire)	Manual or auto reset selectable by switch	Manual or auto reset selectable by switch on SSR10M	Manual or auto reset selectable by buttons and display
Timer functions	Off-delay	Off-delay	Off-delay	On-delay, off-delay, time bypass, time reset
Timer range / Accuracy	Discrete values between 0 and 3s Accuracy ±20%	SSR32: 0.5s / Accuracy ± 1% SSR42: 1.5s / Accuracy ± 1%	0.5s and 1.5s selectable by switch Accuracy ± 1%	0-999 sec Accuracy ± 1%
Other functions	Test / Start Info outputs Y14, Y24, Y34	Test / Start	Test / Start	Test / Start, error codes, error log, password protection
Approvals	cCSAus, TÜV	cULus, TÜV, CCC	cULus, TÜV, CCC	cULus, TÜV, CCC
Diagnostic	5 LEDs	3 RGB LEDs	3 RGB LEDs	3 RGB LEDs Display with error codes and error log
Connection blocks	Screws, detachable	Screws, detachable	Screws, detachable	Screws, detachable
Accessories	-	Coding kit for terminal block	Coding kit for terminal block	Coding kit for terminal block

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RT9 - Key feature comparison

RT9



Sentry SSR10



Sentry USR10



Best of the class

Width x depth x height	22.5 x 120 x 84 mm	22.5 x 120 x 120 mm	22.5 x 120 x 120 mm
Functional safety data	PL e, SIL 3, Cat. 4	PL e, SIL 3, Cat. 4	PL e, SIL 3, Cat. 4
Supply voltage	+24 VDC	SSR10: +24 VDC (SSR10M: 85-265 VAC/120-375 VDC)	+24 VDC
Input types	1 & 2 channels (equivalent & antivalent), OSSD, contact mats	1 & 2 channels (equivalent), OSSD	1 & 2 channels (equivalent & antivalent), OSSD, Two-hand, contact mats
Number of safety outputs	2NO	3NO + 1NC	3NO + 1NC
Rated output current	AC15: 2 A – DC13: 1 A	AC15: 5 A – DC13: 6 A	AC15: 5 A – DC13: 6 A
Manual / auto reset	Manual and auto reset selectable by connection (hardwire)	Manual and auto reset selectable by switch	Manual and auto reset selectable by buttons and display
Timer functions	-	-	On-delay, off-delay, time bypass, time reset
Timer range / Accuracy	-	-	0-999 sec, Accuracy \pm 1%
Other functions	Test / Start	Test / Start	Test / Start Error codes, error log, password protection
Approvals	cCSAus, TÜV, CCC	cULus, TÜV, CCC	cULus, TÜV, CCC
Diagnostic	5 LEDs	3 RGB LEDs	3 RGB LEDs Display with error codes and error log
Connection blocks	Screws, detachable	Screws, detachable	Screws, detachable
Accessories	-	Coding kit for terminal block	Coding kit for terminal block

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E1T - Key feature comparison

E1T



Sentry BSR23



Sentry TSR20



Sentry TSR10



Best of the class

Width x depth x height	22.5 x 120 x 84 mm	22.5 x 120 x 120 mm	22.5 x 120 x 120 mm	22.5 x 120 x 120 mm
Functional safety data	PL e, SIL 3, Cat. 4	PL e, SIL 3, Cat. 4	PL e, SIL 3, Cat. 4	PL e, SIL 3, Cat. 4
Supply voltage	+24 VDC	+24 VDC	+24 VDC	+24 VDC
Input types	1 & 2 channels (equivalent) must be monitored by another device	1 & 2 channels (equivalent) must be monitored by another device	1 & 2 channels (equivalent), OSSD	1 & 2 channels (equivalent, OSSD)
Number of safety outputs	4NO	4NO + 1NC	3NO + 1NC	3NO + 1NC
Rated output current	AC15: 2 A – DC13: 1 A	AC15: 5 A – DC13: 6 A	AC15: 5 A – DC13: 6 A	AC15: 5 A – DC13: 6 A
Manual / auto reset	-	-	-	-
Timer functions	Off-delay	-	Off-delay	On-delay, off-delay, time reset, time bypass
Timer range / Accuracy	Discrete values between 0 and 3s Accuracy $\pm 20\%$	-	0.5s or 1.5s selectable by switch Accuracy $\pm 1\%$	0 – 999 sec / Accuracy $\pm 1\%$
Other functions	-	-	Test / Start	Test / Start Configuration by buttons and display
Approvals	cCSAus, TÜV, CCC	cULus, TÜV, CCC	cULus, TÜV, CCC	cULus, TÜV, CCC
Diagnostic	2 LEDs	3 LEDs	3 RGB LEDs	3 RGB LEDs Display with error codes and error log
Connection blocks	Screws, detachable	Screws, detachable	Screws, detachable	Screws, detachable
Accessories	-	Coding kit for terminal block	Coding kit for terminal block	Coding kit for terminal block

[Back to conversion table – E1T](#)

BT50 - Key feature comparison

BT50



Sentry BSR10



Best of the class

Width x depth x height	22.5 x 120 x 84 mm	22.5 x 120 x 120 mm
Functional safety data	PL e, SIL 3, Cat. 4	PL e, SIL 3, Cat. 4
Supply voltage	+24 VDC	+24 VDC
Input types	1 & 2 channels (equivalent) (No monitoring of two-channel fault)	1 & 2 channels (equivalent) (No monitoring of two-channel fault)
Number of safety outputs	3NO + 1NC	3NO + 1NC
Rated output current	AC15: 2 A – DC13: 1 A	AC15: 5 A – DC13: 6 A
Manual / auto reset	-	-
Timer functions	-	-
Timer range / Accuracy	-	-
Other functions	Test / Start Max 4 pcs BT50 to one Pluto Q2 or Pluto Q3	Test / Start Max 10 pcs BSR10 to one Pluto Q2 or Pluto Q3
Approvals	cCSAus, TÜV, CCC	cULus, TÜV, CCC
Diagnostic	3 LEDs	3 LEDs
Connection blocks	Screws, detachable	Screws, detachable
Accessories	-	Coding kit for terminal block

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BT50T - Key feature comparison

BT50T



Sentry TSR20



Best of the class

Width x depth x height	22.5 x 120 x 84 mm	22.5 x 120 x 120 mm
Functional safety data	PL e, SIL 3, Cat. 4	PL e, SIL 3, Cat. 4
Supply voltage	+24 VDC	+24 VDC
Input types	1 & 2 channels (equivalent) (No monitoring of two-channel fault)	1 & 2 channels (equivalent), OSSD
Number of safety outputs	3NO + 1NC	3NO + 1NC
Rated output current	AC15: 2 A – DC13: 1 A	AC15: 5 A – DC13: 6 A
Manual / auto reset	-	-
Timer functions	Off-delay	Off-delay
Timer range / Accuracy	0, 0.5, 1, 1.5 sec selectable by connection (Hardwire) / Accuracy $\pm 20\%$	0.5s or 1.5s selectable by switch Accuracy $\pm 1\%$
Other functions	Test / Start	Test / Start
Approvals	cCSAus, TÜV, CCC	cULus, TÜV, CCC
Diagnostic	3 LEDs	3 RGB LEDs
Connection blocks	Screws, detachable	Screws, detachable
Accessories	-	Coding kit for terminal block

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BT51 - Key feature comparison

BT51



Sentry BSR11



Best of the class

Width x depth x height	22.5 x 120 x 84 mm	22.5 x 120 x 120 mm
Functional safety data	PL e, SIL 3, Cat. 4	PL e, SIL 3, Cat. 4
Supply voltage	+24 VDC	+24 VDC
Input types	1 & 2 channels (equivalent) (No monitoring of two-channel fault)	1 & 2 channels (equivalent) (No monitoring of two-channel fault)
Number of safety outputs	4NO	4NO
Rated output current	AC15: 2 A – DC13: 1 A	AC15: 5 A – DC13: 6 A
Manual / auto reset	-	-
Timer functions	-	-
Timer range / Accuracy	-	-
Other functions	Test / Start Max 4 pcs BT51 to one Pluto Q2 or Pluto Q3	Test / Start Max 10 pcs BSR11 to one Pluto Q2 or Pluto Q3
Approvals	cCSAus, TÜV, CCC	cULus, TÜV, CCC
Diagnostic	3 LEDs	3 LEDs
Connection blocks	Screws, detachable	Screws, detachable
Accessories	-	Coding kit for terminal block

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BT51T - Key feature comparison

BT51T



Sentry TSR20



Best of the class

Width x depth x height	22.5 x 120 x 84 mm	22.5 x 120 x 120 mm
Functional safety data	PL e, SIL 3, Cat. 4	PL e, SIL 3, Cat. 4
Supply voltage	+24 VDC	+24 VDC
Input types	1 & 2 channels (equivalent) (No monitoring of two-channel fault)	1 & 2 channels (equivalent), OSSD
Number of safety outputs	4NO	3NO + 1NC
Rated output current	AC15: 2 A – DC13: 1 A	AC15: 5 A – DC13: 6 A
Manual / auto reset	-	-
Timer functions	Off-delay	Off-delay
Timer range / Accuracy	0, 0.5, 1, 1.5 sec selectable by connection (Hardwire) / Accuracy ± 2 0%	0.5s or 1.5s selectable by switch / Accuracy ± 1 %
Other functions	Test / Start	Test / Start
Approvals	cCSAus, TÜV, CCC	cULus, TÜV, CCC
Diagnostic	3 LEDs	3 RGB LEDs
Connection blocks	Screws, detachable	Screws, detachable
Accessories	-	Coding kit for terminal block

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