

relais SFR



CATALOGUES 2021

ELESTA



ELESTA

ABOUT ELESTA ELEKTROTECHNIK AG

Elesta Elektrotechnik AG
Elestastrasse 16
CH-7310 Bad Ragaz

Since 1952, under the name Elesta switching relays have been manufactured that must satisfy particularly high quality requirements and demands on reliability in their applications. Thus, the users of Elesta relays will also in future have the guarantee that they will out in front in terms of quality, reliability and user benefits.

Elesta Elektrotechnik AG uses only the best material, and processes these very carefully, accompanied by elaborate inspection methods. These inspections include the regular checking of all products by the VDE, UL and ISO9001.

Elesta Elektrotechnik AG pays considerable attention to the external appearance of its products. This is, as it were, a sign of the care with which the individual relay components are produced and assembled into the different products.

ELESTA

Elesta Elektrotechnik Ag,
Elestastrasse 16,
CH-7310, Bad Ragaz,
Tel.: +41-81-300 42 00,
Fax: +41-81-300 42 01
Email: info@elesta.ch;
Website : www.elesta.ch

SFR - industry relay



the SFR-industry relay

SFR industry relays are the ideal relays for control systems.

A simple construction guarantees the safety of these relays. The large contact rivet ($\varnothing 3$ mm) guarantees the extraordinary life time.

An ideal product for control systems in combination with the socket program and the accessories.

features

- large contacts ($\varnothing 3$ mm)
- extraordinary life time
- mechanical lever integrated in the cover
- large separating walls between the contacts guarantees high creeping and leakage distance
- mechanical position indication
- complete accessory
- all relays are 100% computer tested

applications

- switch panel making
- machine and plant industry
- switching between functions



type number key

SFR 143 A 024VDC

coil voltages

006 VAC	006 VDC
012 VAC	012 VDC
024 VAC	024 VDC
048 VAC	048 VDC
115 VAC	110 VDC
230 VAC	220 VDC

option

A = Mechanical Position Indication
 F = Free Wheel Diode
 L = Electrical Position Indication
 B = NO Lockable / Normal Push Button
 M = Magnetic blow out (only for SFR 123)

relay version

SFR 143	- 4 Change over	- 5 A - 14 pin
SFR 143H	- 4 Change over	- 5 A - 14 pin
SFR 143S	- 4 Change over	- 7 A - 14 pin
SFR 143-3L1	- 3 Change over	- 5 A - 14 pin
SFR 143-3L2	- 3 Change over	- 5 A - 14 pin
SFR 183	- 2 Change over	- 5 A - 8 pin
SFR 123	- 2 Change over	- 10 A - 8 pin
SFR 123-G	- 2 NO Contact	- 10 A - 6 pin
SFR 123-X	- 1 NO 1NC Contact	- 10 A - 6 pin
SFR 123-Y	- 1 NO Double Break Contact	- 10 A - 4 pin
SFR 123-W	- 1 CO Wolform Contact	- 10 A - 4 pin
SFR 123-M	- 2 Change over	- DC Switching Relay - 10 A - 8 pin
SFR 123-G-M	- 2 NO	- DC Switching Relay - 10 A - 6 pin
SFR 123-Y-M	- 1 NO - Double Break	- DC Switching Relay - 10 A - 4 pin

order samples

manual actuation	position indication	free wheel diode	No Push Button	Magnetic Blow Out						
•	•				SFR 143 AL	VDC/AC	SFR 183 AL	VDC/AC	SFR 123 AL	VDC/AC
•	•	•			SFR 143 AFL	VDC/AC	SFR 183 AFL	VDC/AC	SFR 123 AFL	VDC/AC
•	•	•	•		SFR 143 AFLB	VDC/AC	SFR 183 AFLB	VDC/AC	SFR 123 AFLB	VDC/AC
•	•	•	•	•					SFR 123 AFLBM	VDC/AC



SFR 143 - Industry relay, 4-pole- 6A - 14 pin



number of contacts **4 Change Over**
 switching current range **1 mA to 6 A**
 inrush current **15 A**
 specialities standard **mechanical position indication**
mechanical actuation with lever

order numbers

SFR 143 A ..VDC/AC

contact specifications

contact material code 1 (STANDARD)	AgCuNi + 0.2μ Au
code 2	AgCuNi + 5.0μ Au
contact type	single contact
nominal switching capacity	250 VAC 6AAC1 30 VDC 6 A DC1 440 VAC 4 A AC1
electric life expectancy at nominal load	≥ 100,000 operations 250 VAC, 6 A, AC1 (360 operations/h)
peak inrush current max.	15 A for 20 ms
switching current range	1mA to 6 A
switching power range	0.3 VA to 1250 VA

option

electrical position indication
 SFR 143 AL ..VDC/AC
 electrical position indication with free
 wheeling diode
 SFR 143 AFL VDC
 electrical position indication without
 manual Push Button
 SFR 143 ALB VDC
 electrical position indication with free
 wheeling diode without manual Push Button
 SFR 143 AFLB VDC

general data

mechanic life expectancy	10 x 10 ⁶ operations
mechanical switching frequency	20 Hz
pull-in time	8 0ms at DC / 3-9 ms at AC
release time	3,5 ms at DC / 4-12 ms at AC
bounce time normally open contact	3,0 ms at DC / 1-8 ms at AC
bounce time break contact	8.0 ms at DC / 19-16 ms at AC
shock resistance	AK: > 10 g
test voltage, coil/contact	2000 V _{eff}
test voltage, set of contacts/set of contacts	2000 V _{eff}
test voltage, open contact	1000 V _{eff}
insulation resistance	250 MΩ
creeping resistance	CTI 250
weight	app. 43 g
installation situation	any
ambient temperature	-40 to +70 °C
protection standard	IP 40

accessories

plug-in socket	ZFE-148
accessories 1	ZFE-008
accessories 2	ZPE-1-L
plug-in socket	ZFD-148
accessories 1	ZFD-008
accessories 2	ZFD-B1
plug-in socket	ZFI-148
accessories 1	ZFI-008
accessories 2	ZPE-1-L
PCB socket	ZFR-014
accessories 1	ZFR-008

tests, instructions

certificates	VDE
insulation group	VDE 0110 / group C 250 VAC



SFR 143 H - Industry relay, 4-pole- 6A - 14 pin



number of contacts **4 Change Over**
 switching current range **1 mA to 6 A**
 inrush current **15 A**
 specialities / standard **mechanical position indication**
mechanical actuation with lever

order numbers

SFR 143 H A ..VDC/AC

contact specifications

contact material code 1 (STANDARD)	AgCuNi + 0.2μ Au
code 2	AgCuNi + 5.0μ Au
contact type	single contact
nominal switching capacity	250 VAC 6AAC1 30 VDC 6 A DC1 440 VAC 4 A AC1
electric life expectancy at nominal load	≥ 300,000 operations 250 VAC, 6 A, AC1 (360 operations/h)
peak inrush current max.	15 A for 20 ms
switching current range	1mA to 6 A
switching power range	0.3 VA to 1250 VA

options

electrical position indication
 SFR 143 H AL ..VDC/AC

electrical position indication with free wheeling diode
 SFR 143 H AFL VDC

electrical position indication without manual Push Button
 SFR 143 H ALB VDC

electrical position indication with free wheeling diode without manual Push Button
 SFR 143 H AFLB VDC

general data

mechanic life expectancy	10 x 10 ⁶ operations
mechanical switching frequency	20 Hz
pull-in time	8.0ms at DC / 3-9 ms at AC
release time	3.5 ms at DC / 4-12 ms at AC
bounce time normally open contact	3.0 ms at DC / 1-8 ms at AC
bounce time break contact	8.0 ms at DC / 9-16 ms at AC
shock resistance	AK: > 10 g
test voltage, coil/contact	2000 V _{eff}
test voltage, set of contacts/set of contacts	2000 V _{eff}
test voltage, open contact	1000 V _{eff}
insulation resistance	250 MΩ
creeping resistance	CTI 250
weight	app. 43 g
installation situation	any
ambient temperature	-40 to +70 °C
protection standard	IP 40

accessories

plug-in socket	ZFE-148
accessories 1	ZFE-008
accessories 2	ZPE-1-L
plug-in socket	ZFD-148
accessories 1	ZFD-008
accessories 2	ZFD-B1
plug-in socket	ZFI-148
accessories 1	ZFI-008
accessories 2	ZPE-1-L
PCB socket	ZFR-014
accessories 1	ZFR-008

tests, instructions

certificates	VDE
insulations group	VDE 0110 / group C 250 VAC



SFR 143 S - Industry relay, 4-pole - 7A - 14 pin



number of contacts **4 Change Over**
 switching current range **1 mA to 7 A**
 inrush current **15 A**
 specialities / standard **mechanical position indication**
mechanical actuation with lever

order numbers

SFR 143S A ..VDC/AC

contact specifications

contact material code 1 (STANDARD)	AgCuNi + 0.2 μ Au
code 2	AgCuNi + 5.0 μ Au
contact type	single contact
nominal switching capacity	250 VAC 7 A AC1 30 VDC 7 A DC1
electric life expectancy	$\geq 100'000$ operations 250 VAC, 1 A, AC1 (360 operations/h)
max. inrush current	15 A for 20 ms
switching current range	1mA to 7 A
switching power range	0.3 VA to 1750 VA

options

electrical position indication
 SFR 143 S AL ..VDC/AC
 electrical position indication with free
 wheeling diode
 SFR 143 S AFL VDC
 electrical position indication without
 manual Push Button
 SFR 143 S ALB VDC
 electrical position indication with free
 wheeling diode without manual Push Button
 SFR 143 S AFLB VDC

general data

mechanic life expectancy	10 x 10 ⁶ operations
mechanical switching frequency	20 Hz
pull-in time	8 ms at DC / 3-9 ms at AC
release time	3,5 ms at DC / 4-12 ms at AC
bounce time normally open contact	3,0 ms at DC / 1-8 ms at AC
bounce time break contact	8 ms at DC / 9-16 ms at AC
shock resistance	AK: > 10 g
test voltage, coil/contact	2000 V _{eff}
test voltage, set of contacts/set of contacts	2000 V _{eff}
test voltage, open contact	1000 V _{eff}
insulation resistance	250 M Ω
creeping resistance	CTI 250
weight	app. 43 g
installation situation	any
ambient temperature	-40 to +70 °C
protection standard	IP 40

accessories

plug-in socket	ZFE-148
accessories 1	ZFE-008
accessories 2	ZPE-1-L
plug-in socket	ZFD-148
accessories 1	ZFD-008
accessories 2	ZFD-B1
plug-in socket	ZFI-148
accessories 1	ZFI-008
accessories 2	ZPE-1-L
PCB socket	ZFR-014
accessories 1	ZFR-008

tests, instructions

certificates	VDE
insultions group	VDE 0110 / group C 250 VAC



SFR 143 3L1 - Bi-stable relay 3-pole - 6A - 14 pin



number of contacts **3 Change Over - Bi-stable relay with two common coils**
 switching current range **1 mA to 6 A**
 inrush current **15 A**
 specialities / standard **mechanical position indication**
 mechanical actuation with lever

order numbers

SFR 143 3L1 ...VDC/AC

contact specifications

contact material code 1 (STANDARD)	AgCuNi + 0.2μ Au
code 2	AgCuNi + 5.0μ Au
contact type	single contact
nominal switching capacity	250 VAC 6 A AC1 30 VDC 6 A DC1
electric life expectancy at normal load	≥ 100'000 operations 250 VAC, 6 A, AC1 (360 operations/h)
max. inrush current	15 A for 20 ms
switching current range	1mA to 6 A
switching power range	0.3 VA to 1250 VA

options

electrical position indication
 SFR 143 3L1 ..VDC/AC

general data

mechanic life expectancy	10 x 10 ⁶ operations
mechanical switching frequency	20 Hz
pull-in time	8 ms at DC / 3-9 ms at AC
release time	3,5 ms at DC / 4-12 ms at AC
bounce time normally open contact	3,0 ms at DC / 1-8 ms at AC
bounce time break contact	8 ms at DC / 9-16 ms at AC
shock resistance	AK: > 10 g
test voltage, coil/contact	2000 V _{eff}
test voltage, set of contacts/set of contacts	2000 V _{eff}
test voltage, open contact	1000 V _{eff}
insulation resistance	250 MΩ
creeping resistance	CTI 250
weight	app. 43 g
installation situation	any
ambient temperature	-40 to +70 °C
protection standard	IP 40

accessories

plug-in socket	ZFE-148
accessories 1	ZFE-008
accessories 2	ZPE-1-L
plug-in socket	ZFD-148
accessories 1	ZFD-008
accessories 2	ZFD-B1
plug-in socket	ZFI-148
accessories 1	ZFI-008
accessories 2	ZPE-1-L
PCB socket	ZFR-014
accessories 1	ZFR-008

tests, instructions

certificates	VDE
insultions group	VDE 0110 / group C 250 VAC



SFR 143 3L2 - Bi-stable relay, 3-pole - 6A - 14 pin



number of contacts **3 Change Over - Bi-stable relay with two independent coils**
 switching current range **1 mA to 6 A**
 inrush current **15 A**
 specialities / standard **mechanical position indication**
mechanical actuation with lever

order numbers

SFR 143 3L2 ..VDC/AC

contact specifications

contact material code 1 (STANDARD)	AgCuNi + 0.2 μ Au
code 2	AgCuNi + 5.0 μ Au
contact type	single contact
nominal switching capacity	250 VAC 6AACI 30 VDC 6ADCI
electric life expectancy at normal load	\geq 100'000 operations 250 VAC, 6 A, AC1 (360 operations/h)
max. inrush current	15 A for 20 ms
switching current range	1mA to 6 A
switching power range	0.3 VA to 1250 VA

options

electrical position indication
 SFR 143 3L1 ..VDC/AC

general data

mechanic life expectancy	10 x 10 ⁶ operations
mechanical switching frequency	20 Hz
pull-in time	8 ms at DC / 3-9 ms at AC
release time	3,5 ms at DC / 4-12 ms at AC
bounce time normally open contact	3,0 ms at DC / 1-8 ms at AC
bounce time break contact	8 ms at DC / 9-16 ms at AC
shock resistance	AK: > 10 g
test voltage, coil/contact	2000 V _{eff}
test voltage, set of contacts/set of contacts	2000 V _{eff}
test voltage, open contact	1000 V _{eff}
insulation resistance	250 M Ω
creeping resistance	CTI 250
weight	app. 43 g
installation situation	any
ambient temperature	-40 to +70 °C
protection standard	IP 40

accessories

plug-in socket	ZFE-148
accessories 1	ZFE-008
accessories 2	ZPE-1-L
plug-in socket	ZFD-148
accessories 1	ZFD-008
accessories 2	ZFD-B1
plug-in socket	ZFI-148
accessories 1	ZFI-008
accessories 2	ZPE-1-L
PCB socket	ZFR-014
accessories 1	ZFR-008

tests, instructions

certificates	VDE
insulations group	VDE 0110 / group C 250 VAC



SFR 183 - Industry relay, 2-pole - 6A - 8 pin



number of contacts **2 Change Over**
 switching current range **1 mA to 6A**
 inrush current **15 A**
 specialities / standard **mechanical position indication**
mechanical actuation with lever

order numbers

SFR 183 A ..VDC/AC

contact specifications

contact material code 1 (STANDARD)	AgCuNi + 0.2 μ Au
code 2	AgCuNi + 5.0 μ Au
contact type	single contact
nominal switching capacity	250 VAC 6 AAC1 30 VDC 6 A DC1 440 VAC 4 A AC1
electric life expectancy at normal load	\geq 100'000 operations 250 VAC, 6 A, AC1 (360 operations/h)
max. inrush current	15 A for 20 ms
switching current range	1mA to 6 A
switching power range	0.3 VA to 1250 VA

options

electrical position indication
 SFR 183 AL ..VDC/AC
 electrical position indication with free
 wheeling diode
 SFR 183 AFL VDC
 electrical position indication without
 manual Push Button
 SFR 183 ALB VDC
 electrical position indication with free
 wheeling diode without manual Push Button
 SFR 183 AFLB VDC

general data

mechanic life expectancy	10 x 10 ⁶ operations
mechanical switching frequency	20 Hz
pull-in time	8.0ms at Dc / 3-9 ms at ACAC
release time	3,5 ms at DC / 4-12 ms at AC
bounce time normally open contact	3,0 ms at DC / 1-8 ms at AC
bounce time break contact	8 ms at DC / 19-16 ms at AC
shock resistance	AK: > 10 g
test voltage, coil/contact	2000 V _{eff}
test voltage, set of contacts/set of contacts	2000 V _{eff}
test voltage, open contact	1000 V _{eff}
insulation resistance	250 M Ω
creeping resistance	CTI 250
weight	app. 43 g
installation situation	any
ambient temperature	-40 to +70 °C
protection standard	IP 40

accessories

plug-in socket	ZFE-088
accessories 1	ZFE-008
accessories 2	ZPE-1-L
plug-in socket	ZFD-088
accessories 1	ZFD-008
accessories 2	ZFD-B1
plug-in socket	ZFI-088
accessories 1	ZFI-008
accessories 2	ZPE-1-L
PCB socket	ZFR-012
accessories 1	ZFR-008

tests, instructions

certificates	VDE
insulations group	VDE 0110 / group C 250 VAC



SFR 123 - Industry relay, 2-pole - 10A - 8 pin



number of contacts **2 Change Over**
 switching current range **1 mA to 10 A**
 inrush current **30 A**
 specialities / standard **mechanical position indication**
mechanical actuation with lever

order numbers

SFR 123 A ..VDC/AC

contact specifications

contact material code 1 (STANDARD)	AgCuNi + 0.2μ Au
code 2	AgCuNi + 5.0μ Au
contact type	single contact
nominal switching capacity	250 VAC 10 AAC1 30 VAC 10 A AC1
electric life expectancy at normal load	≥ 100'000 operations 250 VAC, 10 A, AC1 (360 operations/h)
max. inrush current	30 A for 20ms
switching current range	1mA to 10A
switching power range	0.3 VA to 2500 VA

options

electrical position indication
 SFR 123 AL ..VDC/AC

electrical position indication with free
 wheeling diode
 SFR 123 AFL VDC

electrical position indication without
 manual Push Button
 SFR 123 ALB VDC

electrical position indication with free
 wheeling diode without manual Push Button
 SFR 123 AFLB VDC

general data

mechanic life expectancy	AC: Million / DC: 20 Million
mechanical switching frequency	20 Hz
pick up voltage	≤ 0.8 x U _N
release voltage	≤ 0.1 x U _N
nominal power	1.2 VA (A) / 1 W (DC)
pick up time / bounce time	16 ms / ≤ 3 ms
release up time / bounce time	8 ms / ≤ 1 ms
shock resistance	AK : > 10 g
test voltage, coil / contact	2500 V _{eff}
test voltage, set of contacts/set of contacts	2500 V _{eff}
test voltage, open contact	1000 V _{eff}
insulation resistance @ 500VDC	≥ 1G Ω
creeping resistance	CTI 250
weight	app. 43 g
installation situation	any
ambient temperature	-40 to +70 °C
protection standard	IP 40

accessories

plug-in socket	ZFE-088
accessories 1	ZFE-008
accessories 2	ZPE-1-L
plug-in socket	ZFD-088
accessories 1	ZFD-008
accessories 2	ZFD-B1
plug-in socket	ZFI-088
accessories 1	ZFI-008
accessories 2	ZPE-1-L
PCB socket	ZFR-012
accessories 1	ZFR-008

tests, instructions

certificates	VDE
insulations group	VDE 0110 / group C 250 VAC



SFR 123 W - Industry wolform relay, 1-pole - 10A - 4 pin



number of contacts **1 pole normally open relay for high inrush current**
 switching current range **1 mA to 10 A**
 inrush current **30 A**
 specialities / standard **mechanical position indication**
 mechanical actuation with lever

order numbers

SFR 123 W A ..VDC/AC

contact specifications

contact material code 1 (STANDARD)	AgCuNi + 0.2μ Au
code 2	AgCuNi + 5.0μ Au
contact type	single contact
nominal switching capacity	250 VAC 10 AAC1 30 VAC 10 A AC1
electric life expectancy at normal load	≥ 100'000 operations 250 VAC, 10 A, AC1 (360 operations/h)
max. inrush current	30 A for 20ms
switching current range	1mA to 10A
switching power range	0.3 VA to 2500 VA

options

electrical position indication
 SFR 123 W AL ..VDC/AC

electrical position indication with free wheeling diode
 SFR 123 W AFL VDC

electrical position indication without manual Push Button
 SFR 123 W ALB VDC

electrical position indication with free wheeling diode without manual Push Button
 SFR 123 W AFLB VDC

general data

mechanic life expectancy	AC: Millfon / DC: 20 Million
mechanical switching frequency	20 Hz
pick up voltage	≤ 0.8 x U _N
release voltage	≤ 0.1 x U _N
nominal power	1.2 VA (A) / 1 W (DC)
pick up time / bounce time	16 ms / ≤ 3 ms
release up time / bounce time	8 ms / ≤ 1 ms
shock resistance	AK : > 10 g
test voltage, coil / contact	2500 V _{eff}
test voltage, set of contacts/set of contacts	2500 V _{eff}
test voltage, open contact	1000 V _{eff}
insulation resistance @ 500VDC	≥ 1G Ω
creeping resistance	CTI 250
weight	app. 43 g
installation situation	any
ambient temperature	-40 to +70 °C
protection standard	IP 40

accessories

plug-in socket	ZFE-088
accessories 1	ZFE-008
accessories 2	ZPE-1-L
plug-in socket	ZFD-088
accessories 1	ZFD-008
accessories 2	ZFD-B1
plug-in socket	ZFI-088
accessories 1	ZFI-008
accessories 2	ZPE-1-L
PCB socket	ZFR-012
accessories 1	ZFR-008

tests, instructions

certificates	VDE
insulations group	VDE 0110 / group C 250 VAC



SFR 123 Y - Industry relay, 1 NO - Double Break - 6 pin



number of contacts **1 NO Double Break**
 switching current range **1 mA to 10A**
 inrush current **30 A**
mechanical position indication
mechanical actuation with lever

order numbers

SFR 123 Y A ..VDC/AC

contact specifications

contact material code 1 (STANDARD) code 2	AgCuNi + 0.2 μ Au AgCuNi + 5.0 μ Au
contact type	single contact
nominal switching capacity	250 VAC 10AAC1 30 VAC 10 A DCI
electric life expectancy at nominal load	$\geq 100'000$ operations 250 VAC, 10 A, AC1 (360 operations/h)
peak inrush current max.	15 A for 20 ms
switching current range	1mA to 10 A
switching power range	0,3 VA to 1760 VA

options

electrical position indication SFR 123Y AL VDC/AC
electrical position indication with free wheeling diode SFR 123 Y AFL VDC
electrical position indication without manual Push Button SFR 123 Y ALB VDC
electrical position indication with free wheeling diode without manual Push Button SFR 123 Y AFLB VDC

general data

mechanic life expectancy	10×10^6 operations
mechanical switching frequency	20 Hz
pull-in time	8. 0ms at DC / 3-9 ms at AC
release time	3,5 ms at DC / 4-12 ms at AC
bounce time normally open contact	3,0 ms at DC / 1-8 ms at AC
bounce time break contact	8 ms at DC / 19-16 ms at AC
shock resistance	AK: > 10 g
test voltage, coil/contact	2500 V _{eff}
test voltage, set of contacts/set of contacts	2500 V _{eff}
test voltage, open contact	2000 V _{eff}
insulation resistance	250 M Ω
creeping resistance	CTI 250
weight	app. 43 g
installation situation	any
ambient temperature	-40 to +70 °C
protection standard	IP 40

accessories

plug-in socket	ZFE-088
accessories 1	ZFE-008
accessories 2	ZPE-1-L
plug-in socket	ZFD-088
accessories 1	ZFD-008
accessories 2	ZFD-B1
plug-in socket	ZFI-088
accessories 1	ZFI-008
accessories 2	ZPE-1-L
PCB socket	ZFR-012
accessories 1	ZFR-008

tests, instructions

certificates	VDE
insultions group	VDE 0110 / group C 250 VAC



SFR 123 M - Industry DC Switching relay, 2-pole - 10A - 8 pin



number of contacts **2 Change Over DC Switching relay**
 switching current range **1 mA to 10A**
 inrush current **30 A**
mechanical position indication
mechanical actuation with lever

order numbers

SFR 123 M-B ..VDC/AC

contact specifications

contact material (STANDARD)	AgCuNi
code 1	AgCuNi + 0.2μ Au
code 2	AgCuNi + 5.0μ Au
contact type	single contact
nominal switching capacity	250 VAC 10A AC1 30 VDC 10ADC1 110 VAC 5A DC1 220 VDC 3ADC1 L/R 7ms
electric life expectancy at nominal load	≥ 100'000 operations 250 VAC, 10 A, AC1 (360 operations/h)
peak inrush current max.	10 A
switching current range	30 A
switching power range	250 V

options

electrical position indication without manual Push Button
 SFR 123 M-LB ..VDC/AC
 electrical position indication with free wheeling diode without manual Push Button
 SFR 123 M-FLB ..VDC

general data

mechanic life expectancy	AC: Million / DC: 20 Million
mechanical switching frequency	20 Hz
pick up voltage	≤ 0.8 x U _N
release voltage	≤ 0.1 x U _N
nominal power	1.2 VA (A) / 1 W (DC)
pick up time / bounce time	16 ms / ≤ 3 ms
release up time / bounce time	8 ms / ≤ 1 ms
shock resistance	AK : > 10 g
test voltage, coil / contact	2500 V _{eff}
test voltage, set of contacts/set of contacts	2500 V _{eff}
test voltage, open contact	1000 V _{eff}
insulation resistance @ 500VDC	≥ 1G Ω
creeping resistance	CTI 250
weight	app. 43 g
installation situation	any
ambient temperature	-40 to +70 °C
protection standard	IP 40

accessories

plug-in socket	ZFE-088
accessories 1	ZFE-008
accessories 2	ZPE-1-L
plug-in socket	ZFD-088
accessories 1	ZFD-008
accessories 2	ZFD-B1
plug-in socket	ZFI-088
accessories 1	ZFI-008
accessories 2	ZPE-1-L
PCB socket	ZFR-012
accessories 1	ZFR-008

tests, instructions

certificates	VDE
insulations group	VDE 0110 / group C 250 VAC



SFR 123 G - Industry relay, 2-pole - 10A - 6 pin



number of contacts **2 NO Contact (Normally Open Contacts)**
 switching current range **1 mA to 10A**
 inrush current **30 A**
 specialities **mechanical position indication**
mechanical actuation with lever

order numbers

SFR 123 G A ..VDC/AC

contact specifications

contact material code 1 (STANDARD) code 2	AgCuNi + 0.2μ Au AgCuNi + 5.0μ Au
contact type	single contact
nominal switching capacity	250 VAC 10A AC1 30 VAC 10A DC1
electric life expectancy at nominal load	≥ 100'000 operations 250 VAC, 10 A, AC1 (360 operations/h)
peak inrush current max.	15 A for 20 ms
switching current range	1 mA to 10 A
switching power range	0,3 VA to 2500 VA

options

electrical position indication
 SFR 123 G AL ..VDC/AC
 electrical position indication with free
 wheeling diode
 SFR 123 G AFL VDC
 electrical position indication without
 manual Push Button
 SFR 123 G ALB VDC
 electrical position indication with free
 wheeling diode without manual Push Button
 SFR 123 G AFLB VDC

general data

mechanic life expectancy	10 x 10 ⁶ operations
mechanical switching frequency	20 Hz
pull-in time	8.0 ms at DC / 3-9 ms at AC
release time	3,5 ms at DC / 4-12 ms at AC
bounce time normally open contact	3,0 ms at DC / 1-8 ms at AC
bounce time break contact	8.0 ms at DC / 9-16 ms at AC
shock resistance	AK: > 10 g
test voltage, coil/contact	2500 V _{eff}
test voltage, set of contacts/set of contacts	2500 V _{eff}
test voltage, open contact	2000 V _{eff}
insulation resistance	250 MΩ
creeping resistance	CTI 250
weight	app. 43 g
installation situation	any
ambient temperature	-40 to +70 °C
protection standard	IP 40

accessories

plug-in socket	ZFE-088
accessories 1	ZFE-008
accessories 2	ZPE-1-L
plug-in socket	ZFD-088
accessories 1	ZFD-008
accessories 2	ZFD-B1
plug-in socket	ZFI-088
accessories 1	ZFI-008
accessories 2	ZPE-1-L
PCB socket	ZFR-012
accessories 1	ZFR-008

tests, instructions

certificates	VDE
insulations group	VDE 0110 / group C 250 VAC



SFR 123 GM - Industry DC Switching relay, 2-pole - 10A - 6 pin



number of contacts **2 NO DC Switching relay**
 switching current range **1 mA to 10A**
 inrush current **30 A**
mechanical position indication
mechanical actuation with lever

order numbers

SFR 123 G A ..VDC/AC

contact specifications

contact material (STANDARD)	AgCuNi
code 1	AgCuNi + 0.2µ Au
code 2	AgCuNi + 5.0µ Au
contact type	single contact
nominal switching capacity	250 VAC 10AAC1 30 VDC 10ADC1 220 VDC 10ADC1 220 VDC 5ADC1 L/R 7ms
electric life expectancy at nominal load	≥ 100'000 operations 250 VAC, 10 A, AC1 (360 operations/h)
max inrush current max.	30 A for 20 ms
switching current range	1mA for 10A
switching power range	250 V

options

electrical position indication without manual Push Button
 SFR 123 GM-LB ..VDC/AC
 electrical position indication with free wheeling diode without manual Push Button
 SFR 123 GM-FLB ..VDC

general data

mechanic life expectancy	AC: Millfon / DC: 20 Million
mechanical switching frequency	20 Hz
pick up voltage	≤ 0.8 x U _N
release voltage	≤ 0.1 x U _N
nominal power	1.2 VA (A) / 1 W (DC)
pick up time / bounce time	16 ms / ≤ 3 ms
release up time / bounce time	8 ms / ≤ 1 ms
shock resistance	AK : > 10 g
test voltage, coil / contact	2500 V _{eff}
test voltage, set of contacts/set of contacts	2500 V _{eff}
test voltage, open contact	1000 V _{eff}
insulation resistance @ 500VDC	≥ 1G Ω
creeping resistance	CTI 250
weight	app. 43 g
installation situation	any
ambient temperature	-40 to +70 °C
protection standard	IP 40

accessories

plug-in socket	ZFE-088
accessories 1	ZFE-008
accessories 2	ZPE-1-L
plug-in socket	ZFD-088
accessories 1	ZFD-008
accessories 2	ZFD-B1
plug-in socket	ZFI-088
accessories 1	ZFI-008
accessories 2	ZPE-1-L
PCB socket	ZFR-012
accessories 1	ZFR-008

tests, instructions

certificates	VDE
insulations group	VDE 0110 / group C 250 VAC



SFR 123 X - Industry relay, 1 NO + 1NC - 10A - 6 pin



number of contacts **1 NO + 1 NC Contact**
 switching current range **1 mA to 10A**
 inrush current **30 A**
 specialities **mechanical position indication**
mechanical actuation with lever

order numbers

SFR 123 X A ..VDC/AC

contact specifications

contact material code 1 (STANDARD) code 2	AgCuNi + 0.2 μ Au AgCuNi + 5.0 μ Au
contact type	single contact
nominal switching capacity	250 VAC 10AAC1 30 VAC 10 A DC1
electric life expectancy at nominal load	\geq 100'000 operations 250 VAC, 10 A, AC1 (360 operations/h)
peak inrush current max.	15 A for 20 ms
switching current range	1mA to 10 A
switching power range	0,3 VA to 2500 VA

options

electrical position indication SFR 123 X AL VDC/AC
electrical position indication with free wheeling diode SFR 123 X AFL VDC
electrical position indication without manual Push Button SFR 123 X ALB VDC
electrical position indication with free wheeling diode without manual Push Button SFR 123 X AFLB VDC

general data

mechanic life expectancy	10 x 10 ⁶ operations
mechanical switching frequency	20 Hz
pull-in time	8. 0ms at DC / 3-9 ms at AC
release time	3,5 ms at DC / 4-12 ms at AC
bounce time normally open contact	3,0 ms at DC / 1-8 ms at AC
bounce time break contact	8 ms at DC / 19-16 ms at AC
shock resistance	AK: > 10 g
test voltage, coil/contact	2500 V _{eff}
test voltage, set of contacts/set of contacts	2500 V _{eff}
test voltage, open contact	2000 V _{eff}
insulation resistance	250 M Ω
creeping resistance	CTI 250
weight	app. 43 g
installation situation	any
ambient temperature	-40 to +70 °C
protection standard	IP 40

accessories

plug-in socket	ZFE-088
accessories 1	ZFE-008
accessories 2	ZPE-1-L
plug-in socket	ZFD-088
accessories 1	ZFD-008
accessories 2	ZFD-B1
plug-in socket	ZFI-088
accessories 1	ZFI-008
accessories 2	ZPE-1-L
PCB socket	ZFR-012
accessories 1	ZFR-008

tests, instructions

certificates	VDE
insultions group	VDE 0110 / group C 250 VAC



SFR 123 Y-M - Industry DC Switching relay, 1 NO - Double Break - 6 pin



number of contacts **1 NO Double Break - DC Switching relay**
 switching current range **1 mA to 10A**
 inrush current **30 A**
mechanical position indication
mechanical actuation with lever

order numbers

SFR 123 YM-B ..VDC/AC

contact specifications

contact material (STANDARD)	AgCuNi
code 1	AgCuNi + 0.2µ Au
code 2	AgCuNi + 5.0µ Au
contact type	single contact
nominal switching capacity	250 VAC 10AAC1 30 VDC 10ADC1 220 VDC 5ADC1 110 VDC 7ADC1 L/R 7ms
electric life expectancy at nominal load	≥ 100'000 operations 250 VAC, 10 A, AC1 (360 operations/h)
peak inrush current max.	10 A
switching current range	30 A
switching power range	250 V

options

electrical position indication	SFR 123Y AL VDC/AC
electrical position indication with free wheeling diode	SFR 123 Y AFL VDC
electrical position indication without manual Push Button	SFR 123 Y ALB VDC
electrical position indication with free wheeling diode without manual Push Button	SFR 123 Y AFLB VDC

general data

mechanic life expectancy	AC: Million / DC: 20 Million
mechanical switching frequency	20 Hz
pick up voltage	≤ 0.8 x U _N
release voltage	≤ 0.1 x U _N
nominal power	1.2 VA (A) / 1 W (DC)
pick up time / bounce time	16 ms / ≤ 3 ms
release up time / bounce time	8 ms / ≤ 1 ms
shock resistance	AK : > 10 g
test voltage, coil / contact	2500 V _{eff}
test voltage, set of contacts/set of contacts	2500 V _{eff}
test voltage, open contact	1000 V _{eff}
insulation resistance @ 500VDC	≥ 1G Ω
creeping resistance	CTI 250
weight	app. 43 g
installation situation	any
ambient temperature	-40 to +70 °C
protection standard	IP 40

accessories

plug-in socket	ZFE-088
accessories 1	ZFE-008
accessories 2	ZPE-1-L
plug-in socket	ZFD-088
accessories 1	ZFD-008
accessories 2	ZFD-B1
plug-in socket	ZFI-088
accessories 1	ZFI-008
accessories 2	ZPE-1-L
PCB socket	ZFR-012
accessories 1	ZFR-008

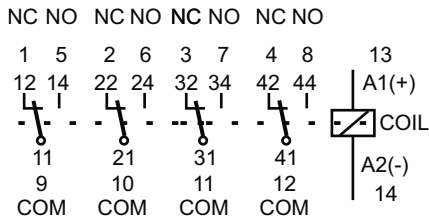
tests, instructions

certificates	VDE
insulations group	VDE 0110 / group C 250 VAC

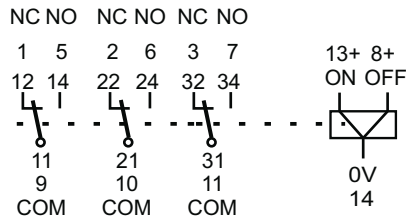


Circuit Diagram

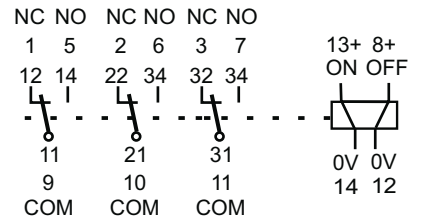
SFR 143 / 143H / 143S



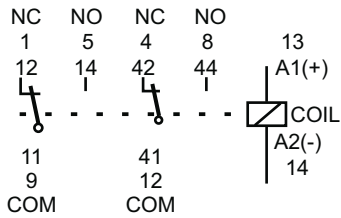
SFR 143-3L1



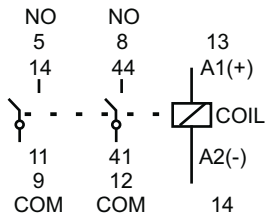
SFR 143-3L2



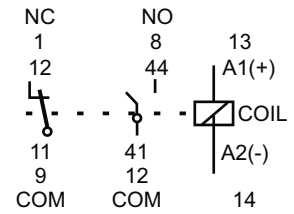
SFR 183 / 123



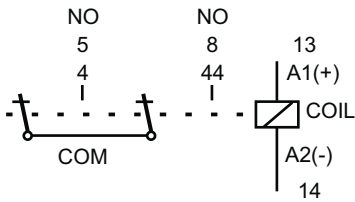
SFR 123-G



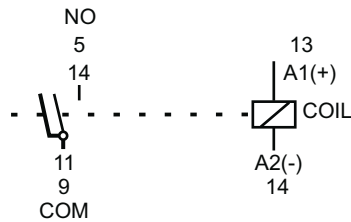
SFR 123-X



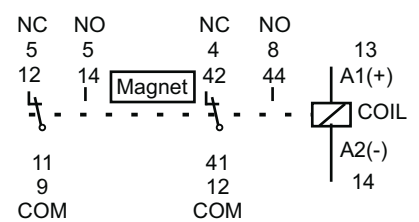
SFR 123 Y



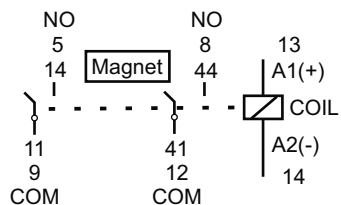
SFR 123-W



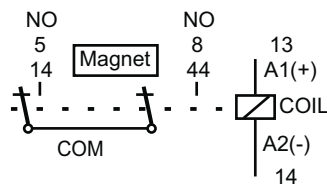
SFR 123-M



SFR 123-G-M

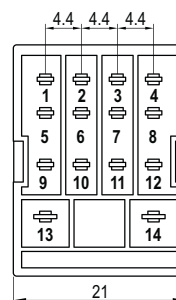
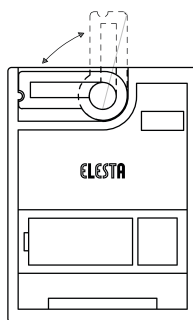
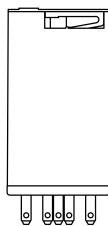
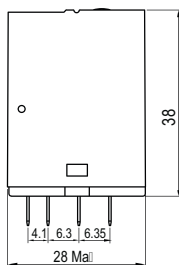


SFR 123-Y-M

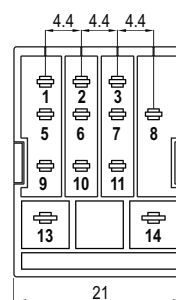
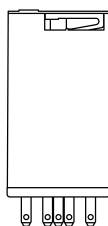
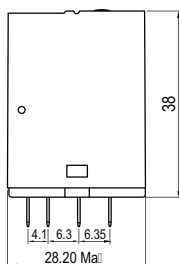


Dimensions Details

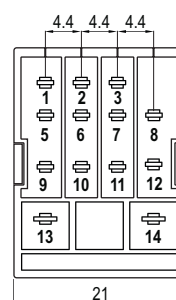
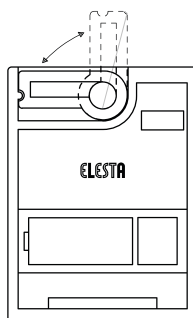
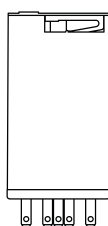
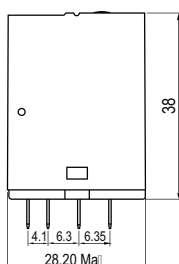
SFR 143, S143H, S143S



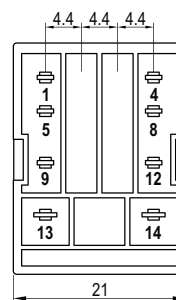
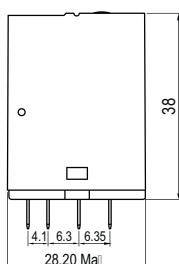
SFR 143-3L1



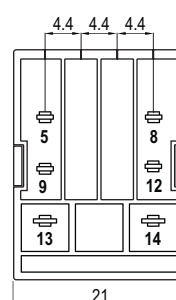
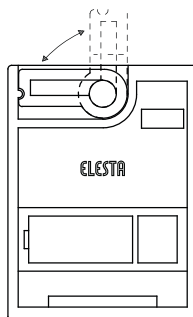
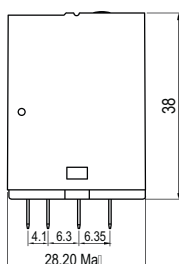
SFR 143-3L2



SFR 183, SFR 123, SFR 123M

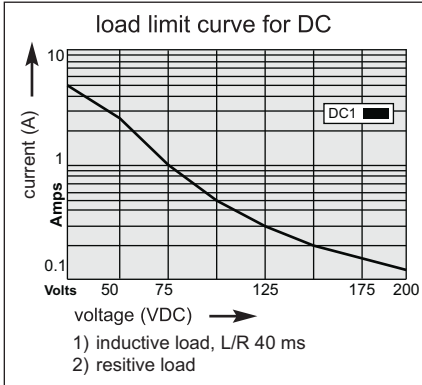


SFR 123G, SFR 123GM, SFR 123X, SFR 123Y, SFR 123YM



SFR - contact specification

AgCuNi single contact



data valid for relay

contact material
contact type
nominal switching capacity

SFR 143, SFR 143-3L1
SFR 183, SFR 143-3L2
AgCuNi
single contact
250 VAC 5 A AC1
440 VAC 4 A AC1
220 VDC 10 ADC1
220 VDC 7ADC1 L/R 7ms

electric life expectancy

app. 100'000 operations
250 VAC, 5 A, AC1 (360 operations/h)

max. inrush current

15 A for 20 ms

switching current range

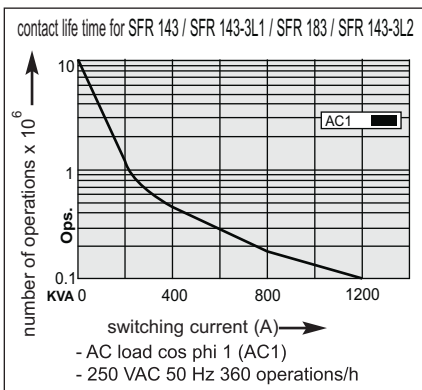
1mA to 7A

switching power range

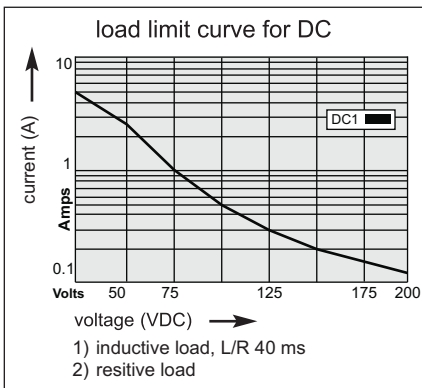
0.3 VA to 1750 VA

contact resistance

20mΩ



AgCuNi single contact



data valid for relay

contact material
contact type
nominal switching capacity
electric life expectancy

SFR 143S
AgCuNi
single contact
250 VAC 7 A AC1
app. 100'000 operations
250 VAC, 7 A, AC1 (360 operations/h)

max. inrush current

15 A for 20 ms

switching current range

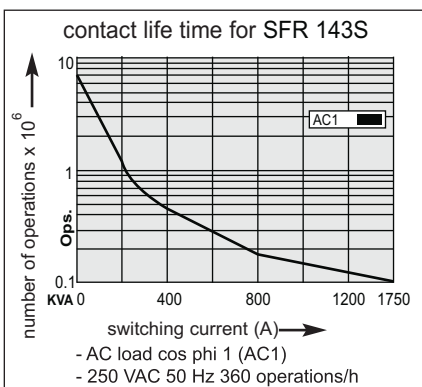
1mA to 7A

switching power range

0.3 VA to 1750 VA

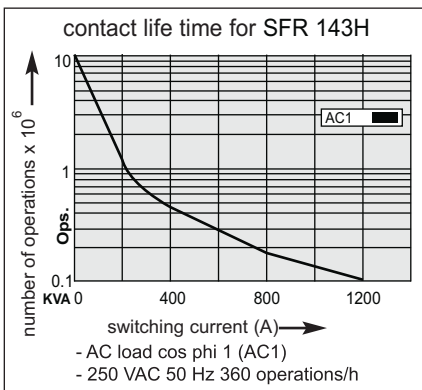
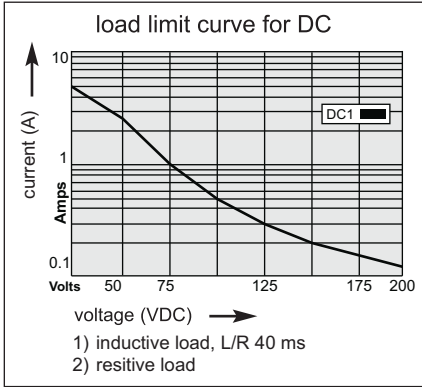
contact resistance

20mΩ



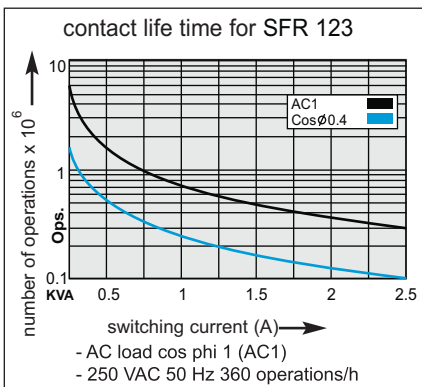
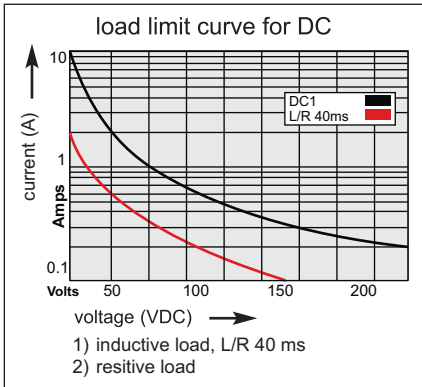
SFR - contact specification

AgCuNi single contact



data valid for relay	SFR 143H
contact material	AgCuNi
contact type	single contact
nominal switching capacity	250 VAC 5 A AC1
electric life expectancy	app. 100'000 operations
	250 VAC, 5 A, AC1 (360 operations/h)
max. inrush current	15 A for 20 ms
switching current range	1mA to 7A
switching power range	0.3 VA to 1200 VA
contact resistance	20mΩ

AgCuNi single contact

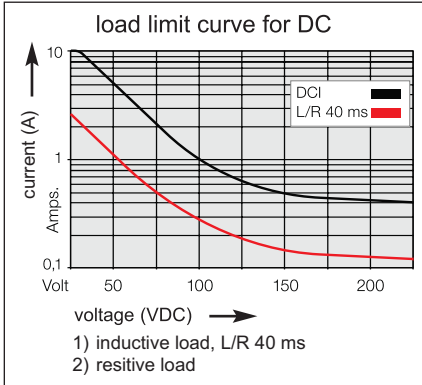


data valid for relay	SFR 123
contact material	AgCuNi
contact type	single contact
nominal switching capacity	250 VAC 10 A AC1
electric life expectancy	app. 100'000 operations
	250 VAC, 10 A, AC1 (360 operations/h)
max. inrush current	30A for 20 ms
switching current range	1mA to 10A
switching power range	0.3 VA to 1750 VA
contact resistance	20mΩ



SFR - contact specification

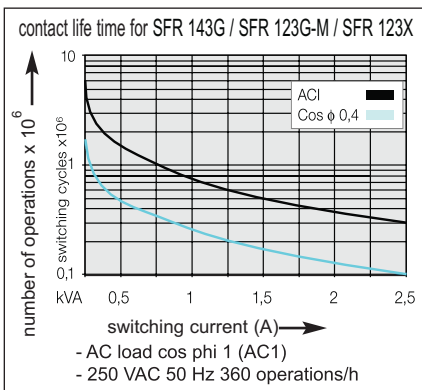
AgCuNi single contact



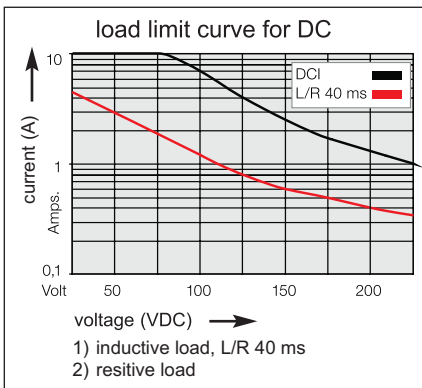
data valid for relay

contact material
contact type
nominal switching capacity
electric life expectancy

SFR 143G SFR 123G-M SFR 123X
AgCuNi
single contact
250 VAC 10 A AC1
app. 100'000 operations 250 VAC, 10 A, AC1 (360 operations/h)
max. inrush current 30 A for 20 ms
switching current range 1mA to 10A
switching power range 0.3 VA to 2500 VA
contact resistance 20mΩ



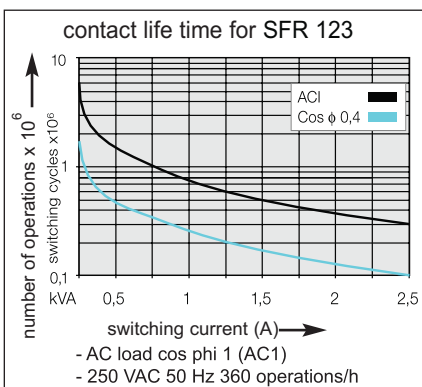
AgCuNi single contact



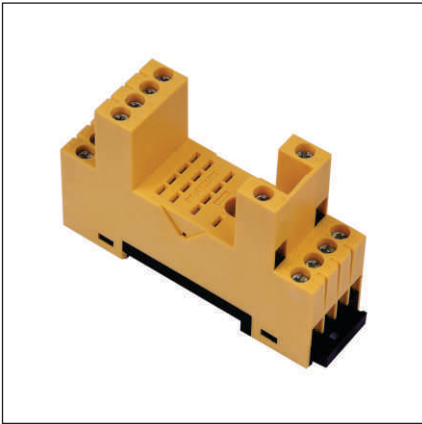
data valid for relay

contact material
contact type
nominal switching capacity
electric life expectancy

SFR 123Y, SFR 123Y-M
AgCuNi
single contact
250 VAC 10 A AC1
app. 100'000 operations 250 VAC, 10 A, AC1 (360 operations/h)
max. inrush current 30A for 20 ms
switching current range 1mA to 10A
switching power range 0.3 VA to 2500 VA
contact resistance 20mΩ



ZFD - 148 socket with accessories - 4 pole



ZFD-148 matching to SFR-143 Series Relays

order numbers

ZFD-148

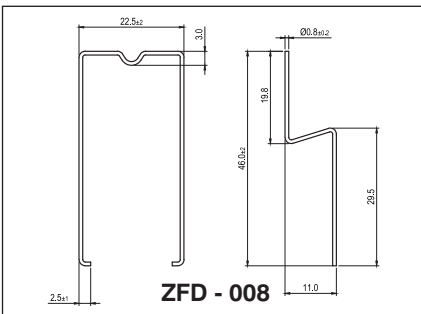
accessories - 1

metal clamp ZFD - 008

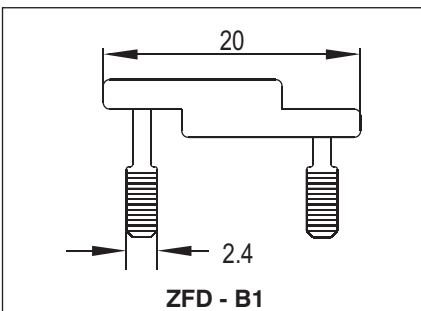
accessories - 2

1 way bridge ZFD - B1

dimensions for accessories - 1



dimensions for accessories - 2



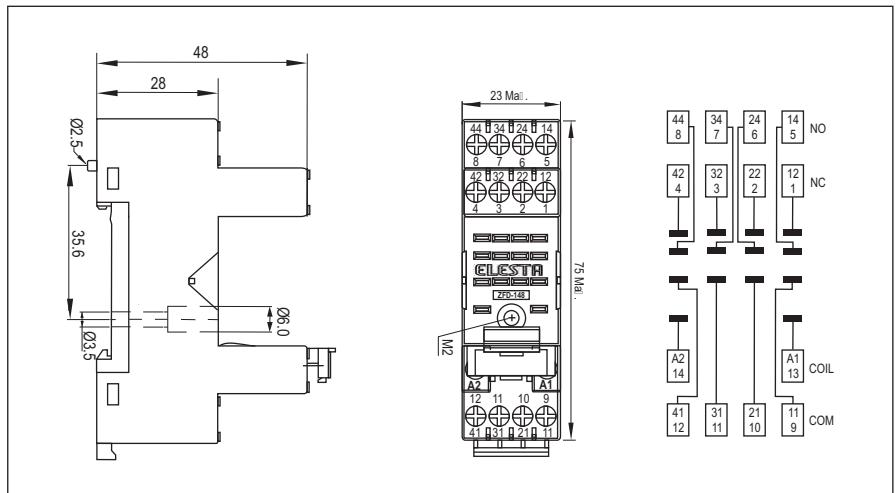
general data

nominal dat	max. 7 A 250 V
weight	app. 61gms
installation situation	any
ambient temperature	-40 to +85 °C
number of poles	4-pole
Hard brass tin-plated terminals	0.3 x 1 mm
Max. Screw Torque	1.2 Nm
Screw Dimensions	M3 Pozi
Solid Wire	4 mm ² or 2 x 2.25 mm ² sq
Multi Core	22 14 AWG
Ferrule Tip Terminals	4 mm ² sq
Dimensions (LxBxH)	75 x 23 x 48 in mm

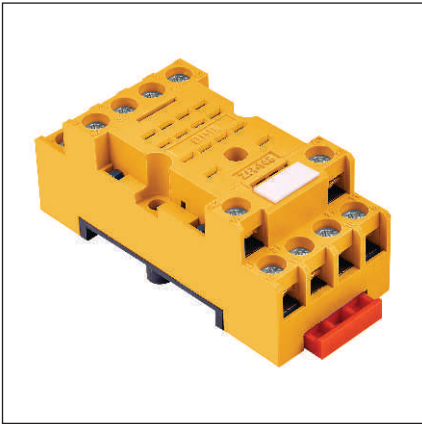
tests, instructions

certificates CE, UL, VDE, CSA

dimensions



ZFI - 148 socket with accessories - 4 pole



ZFI-148 matching to SFR-143 Series Relays

order numbers

ZFI-148

general data

nominal dat	max. 7 A 250 V
weight	app. 46gms
installation situation	any
ambient temperature	-40 to +85 °C
number of poles	4-pole
Hard brass tin-plated terminals	0.3 x 1mm
Max. Screw Torque	0.6 Nm
Screw Dimensions	M3 Pozi
Dimensions (LxBxH)	66 x 29.6 x 27 in mm

accessories - 1

metal clamp ZFI - 008

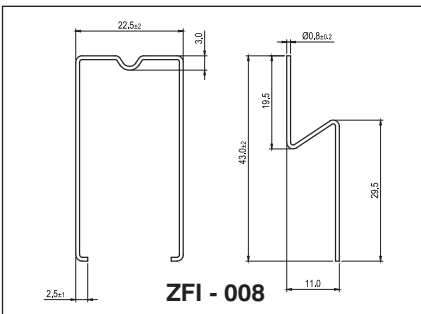
accessories - 2

c terminals ZPE - 1 - L

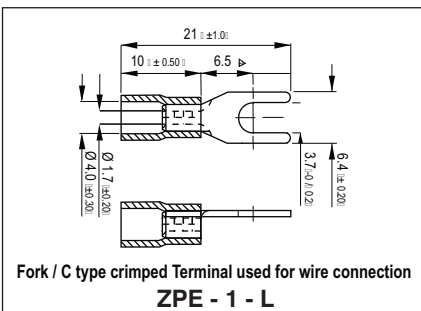
tests, instructions

certificates CE, UL, VDE

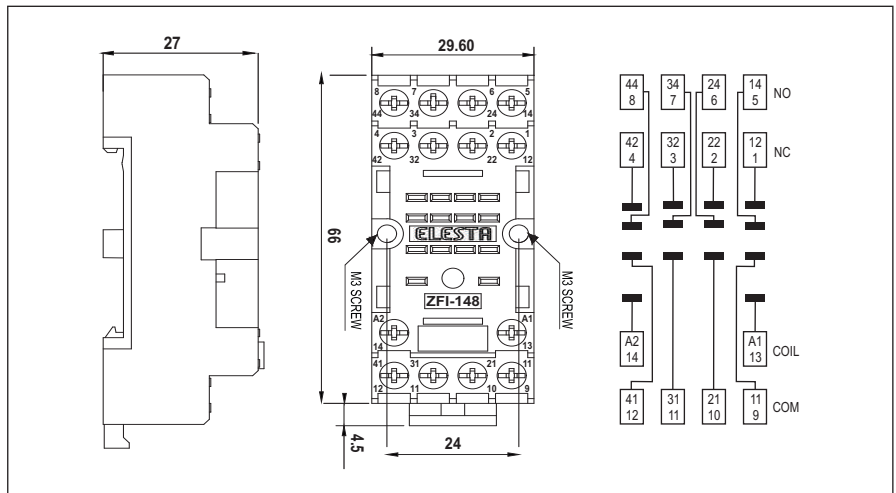
dimensions for accessories - 1



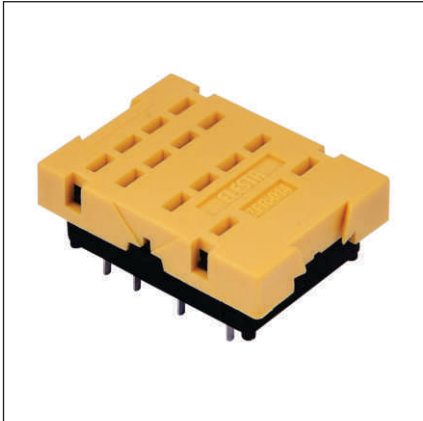
dimensions for accessories - 2



dimensions



ZFR - 014 socket with accessories - 4 pole



ZFR-014 matching to SFR-143 Series Relays

order numbers

ZFR-014

general data

nominal data	max. 7 A 250 V
weight	app. 8gms
installation situation	any
ambient temperature	-40 to +85 °C
number of poles	4-pole
Hard brass tin-plated terminals	0.3 x 1mm
protection standar	IP 40
Dimensions (LxBxH)	30 x 22 x 10 in mm

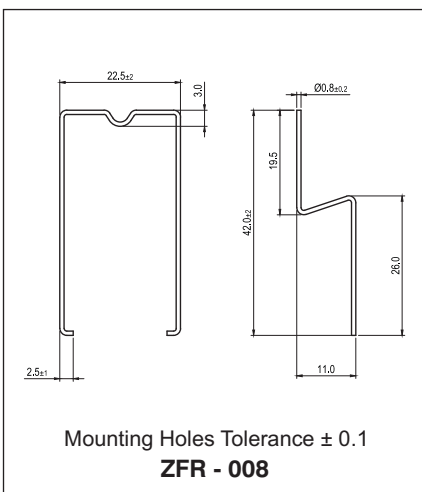
accessories - 1

metal clamp ZFR - 008

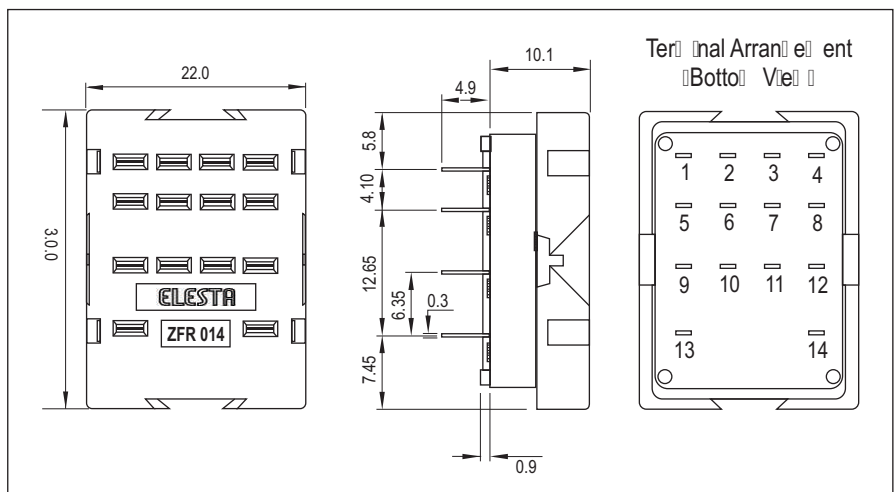
tests, instructions

certificates CE, UL, CSA, VDE

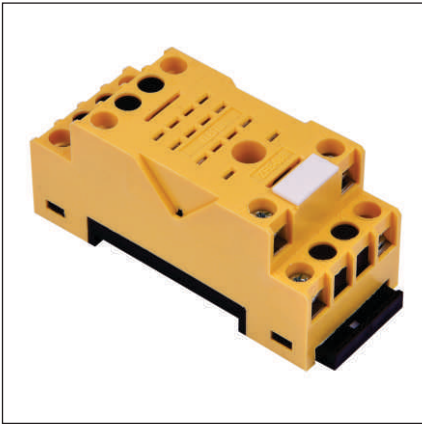
dimensions for accessories - 1



dimensions



ZFE - 088 socket with accessories - 2 pole



ZFE-088 matching to SFR-183 / 123 Series Relays

order numbers

ZFE-088

general data

nominal dat	max. 7 A 250 V
weight	app. 62gms
installation situation	any
ambient temperature	-40 to +85 °C
number of poles	2-pole
Hard brass tin-plated terminals	0.3 x 1 mm
Max. Screw Torque	0.6 Nm
Screw Dimensions	M3 Pozi
Dimensions (LxBxH)	72 x 28.7 x 32 in mm

accessories - 1

metal clamp ZFE - 008

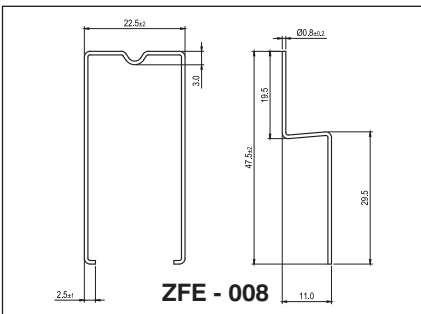
accessories - 2

c terminals ZPE - 1 - L

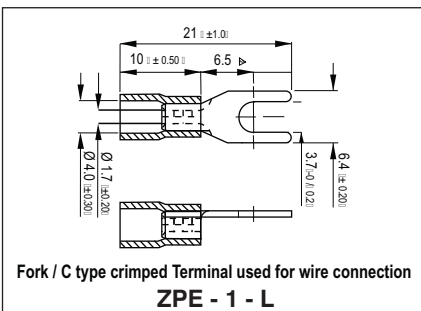
tests, instructions

certificates CE, UL, VDE

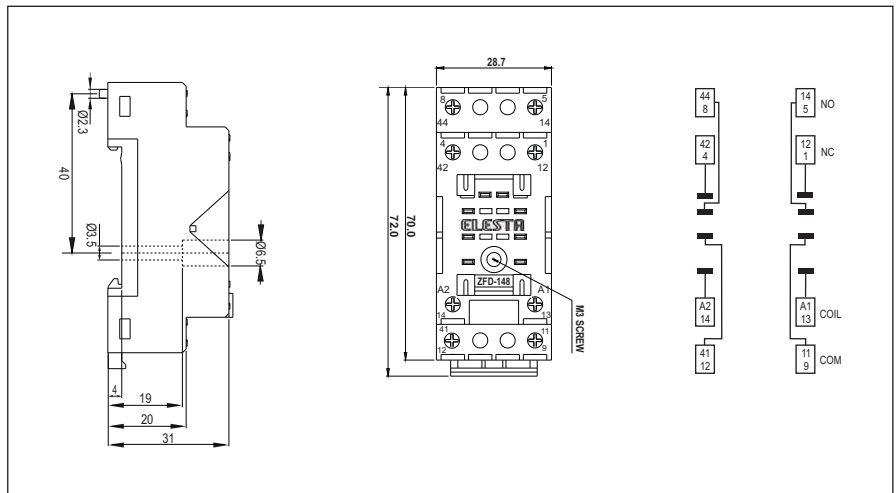
dimensions for accessories - 1



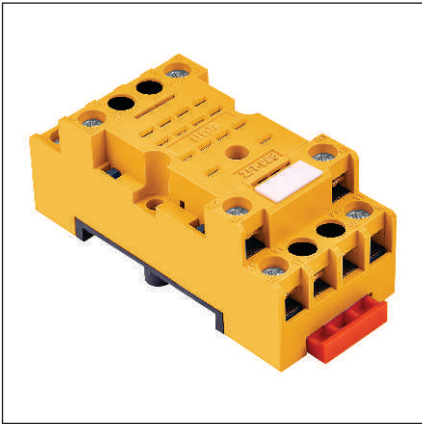
dimensions for accessories - 2



dimensions



ZFI - 088 socket with accessories - 2 pole



ZFI-088 matching to SFR-183 / 123 Series Relays

order numbers

ZFI-088

general data

nominal dat	max. 7 A 250 V
weight	app. 46gms
installation situation	any
ambient temperature	-40 to +85 °C
number of poles	2-pole
Hard brass tin-plated terminals	0.3 x 1mm
Max. Screw Torque	0.6 Nm
Screw Dimensions	M3 Pozi
Dimensions (LxBxH)	66 x 29.6 x 27 in mm

accessories - 1

metal clamp ZFI - 008

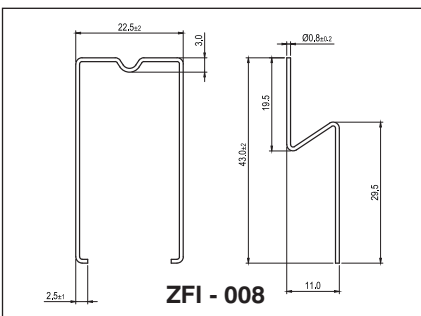
accessories - 2

c terminals ZPE - 1 - L

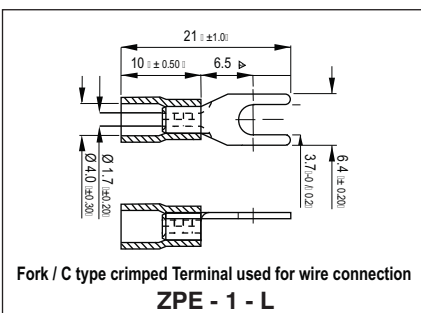
tests, instructions

certificates CE, UL, VDE

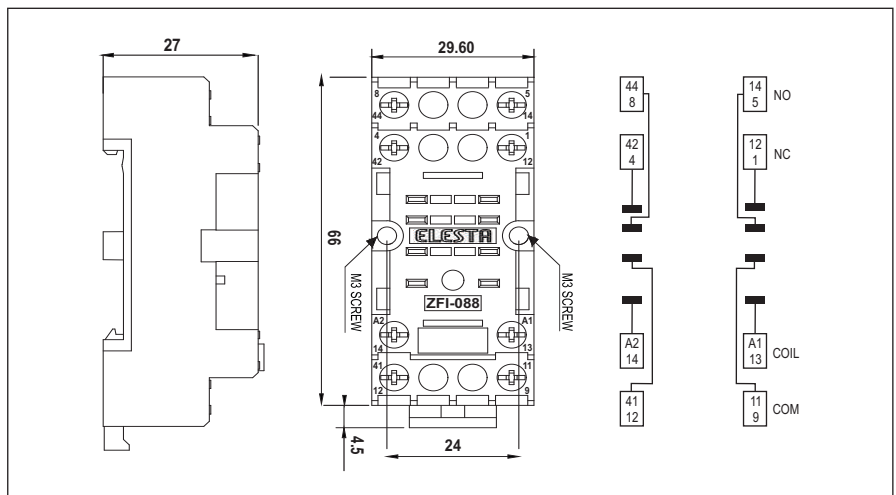
dimensions for accessories - 1



dimensions for accessories - 2



dimensions



ZFR - 012 socket with accessories - 2 pole



ZFR-012 matching to SFR-183 / 123 Series Relays

order numbers

ZFR-012

general data

nominal data	max. 7 A 250 V
weight	app. 8gms
installation situation	any
ambient temperature	-40 to +85 °C
number of poles	2-pole
Hard brass tin-plated terminals	0.3 x 1mm
protection standar	IP 40
Dimensions (LxBxH)	30 x 22 x 10 in mm

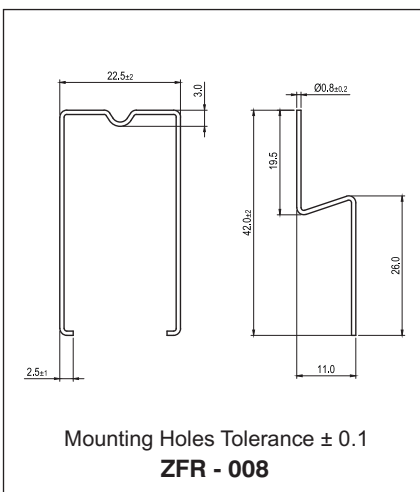
accessories - 1

metal clamp ZFR - 008

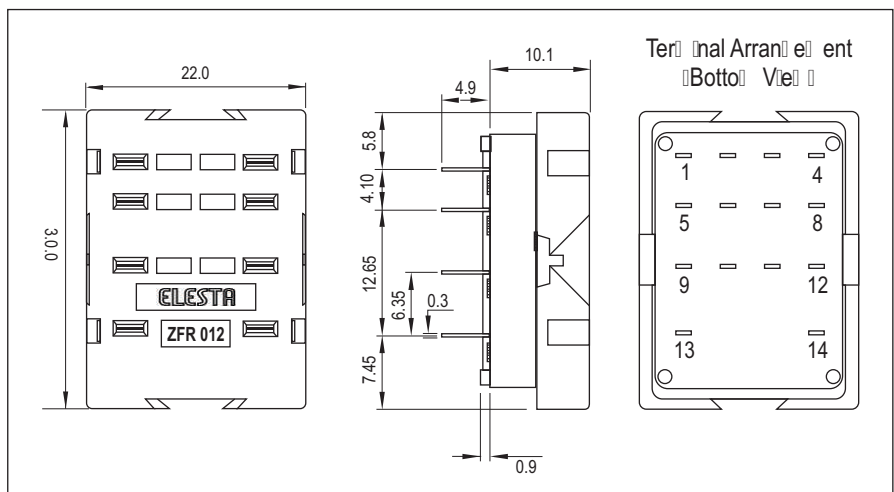
tests, instructions

certificates CE, UL, CSA, VDE

dimensions for accessories - 1



dimensions



ELESTA

Elesta Elektrotechnik Ag,
Elestastrasse 16,
CH-7310, Bad Ragaz,
Tel.: +41-81-300 42 00,
Fax: +41-81-300 42 01
Email: info@elesta.ch;
Website : www.elesta.ch

