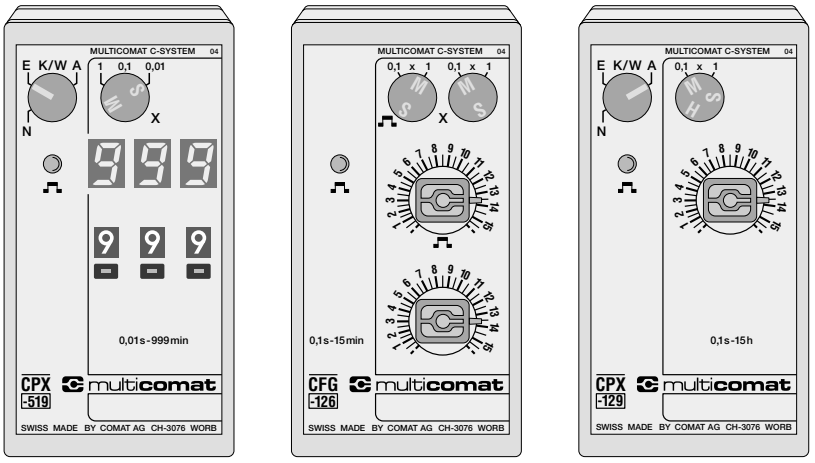
Plug-in time delay relays

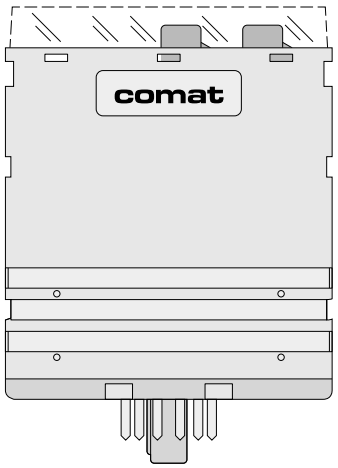
C



CE

Main caracteristics

- Plug-in industrial time delay relay with 2 delay changeover contacts.
- 11 pin submagnal plug as specification IEC 67-1-18a.
- Suitable for front panel mounting with accessory FZ-23.
- With transparent front cover FS-23.
- Programmable timing modes and time ranges.
- Digital indication of the residual time sequence.
- Digital time setting by decade switches or analog setting by potentiometer.
- Quartz time basis or RC oscillator with frequency divider.
- LED display of the relay function.
- Drive by two-wire proximity switch NAMUR or by potential free control contact.
- Pin-compatible for one or several timing modes.
- Conform with CE; IEC255.



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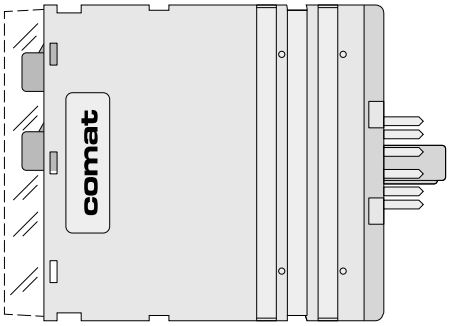
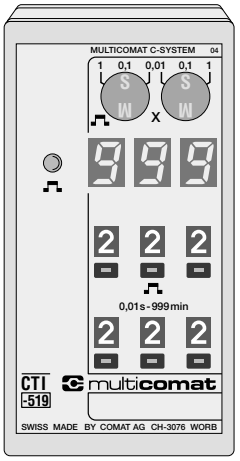
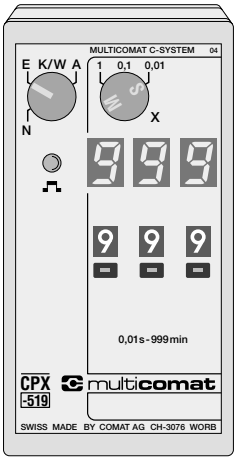
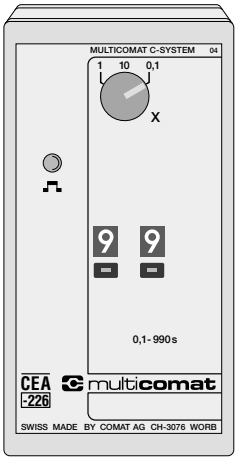
C-System









CTI-519

CPX-519

CEA-226

Specification

Repeat cycle timer

Pulse: interval
= 1:5,994 millions

Time delay relay

2 delay functions
3 single shot timing modes

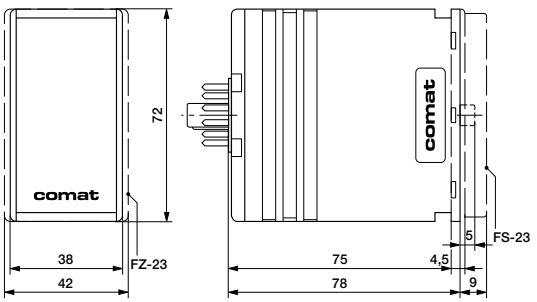
Time delay relay

on delay or
off delay

Functions										
	Connection diagram no.	**I**		**E**	**A**	**K**	**W**	**N**	**E**	**A**
	Method of programming	22/23		22/23	23	23	22	23	22/23	24
				Switch					Connection 5-6-7	
Time ranges		**2x0,01s–999min**		**0,01s–999min**					**0,1s–990s**	
	Partial ranges	2x6		6					3	
	1	0,01 – 9,99s		0,01 – 9,99s					0,1 – 9,9s	
	2	0,1 – 99,9s		0,1 – 99,9s					1 – 99s	
	3	1 – 999s		1 – 999s					10 – 990s	
	4	0,01 – 9,99min		0,01 – 9,99min						
	5	0,1 – 99,9min		0,1 – 99,9min						
	6	1 – 999min		1 – 999min						
Voltages										
AC 50/60 Hz	–15/+10%	**ANX:** AC 110–240V~		**ANX:** AC 110–240V~					**ATX:** AC 220–240V~	
AC 50/60 Hz	–15/+10%	**UFK:** UC 24–48V≂		**UFK:** UC 24–48V≂					**ANP:** AC 110–120V~	
AC 40/60 Hz or DC	–20/+25%	**UCB:** UC 12V≂		**UCB:** UC 12V≂					**UFK:** UC 24–48V≂	
AC 40/60 Hz or DC	–20/+25%	**DNX:** DC 110–240V⎓		**DNX:** DC 110–240V⎓					**UCB:** UC 12V≂	
DC	–15/+10%								**DNX:** DC 110–240V⎓	

Output circuit	1)
Switching current max.	6A
Switching voltage max.	250V~
Switching capacity	AC: 1200VA; DC: ...250W
Mechanical life	30 million operations
Contact material	Ag Ni 90/10

1) Values for resistiv load or for inductive loading with spark suppression. Other contact material on request.



Front mounting accessory FZ-23 (□ 38,5x70$^{+0,5}_{-0}$ mm, max. 3mm thick).
Transparent front cover FS-23 (part of the sope of delivery).

General 3)	Type C..-519 - 226	Type C..-129 - 102
Repeat accuracy	±2 [10] ms 1)	±0,5% [15 ms] 1)
Voltage stability	±2 ms 2)	±1% 2)
Temperature stability	±0,03% 2)	±0,1%/°C
Time range tolerance max.	±0,05%	–0+0,5%
Setting accuracy	±0,05%	–0/+5%
Reset time during t	50 [100] ms	50 [100] ms
Reset time after time expiry	50 ms	50 ms
Triggering time	≥15 ms	≥15 ms
Triggering delay time	10...15 ms	10...15 ms
Load of S (6 – 7)	12V=/2,5 mA	12V=/2,5 mA
Control line	max. 50Ω	max. 50Ω
Ambient temperature range	–25...+60°C	–25...+60°C
Storage temperature range	–25...+85°C	–25...+85°C
Climate	relative humidity 10–95%	relative humidity 10–95%
Transient voltage protection	CE, IEC 255.4, annex E, Kl. III	CE, IEC 255.4, annex E, Kl. III
Testing voltage	2 kV, 50 Hz, 1 min	2 kV, 50 Hz, 1 min
Standards	VDE 0435/0110 Gr. C, CE	VDE 0435/0110 Gr. C, CE
Protection/case material	IP40/Noryl SE1 (UL 94V-1)	IP40/Noryl SE1 (UL 94V-1)
Weight incl. packing	approx.135g, with transf. 230g	approx.120g, with transf. 215g

[ ] = with voltage control operation
3) Data at Tamb = 25°C and Unom

1) referred to the set time
2) max. tolerance total

1) referred to the set time
2) max. tolerance total

Examples of order: 1 Digital repeat cycle timer CTI-519/ANX

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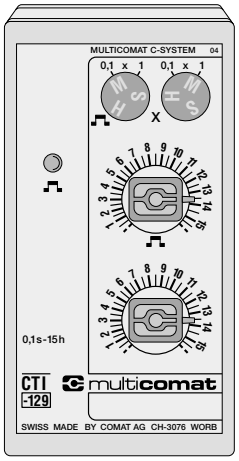
C-System

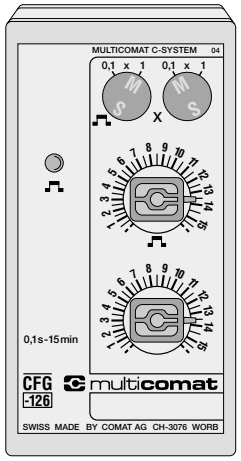


CTI-129

Repeat cycle timer

Pulse: interval
= 1:0,54 million

I
21
2x0,1s–15 h
2x6
0,1 – 1,5s
1 – 15s
0,1 – 1,5min
1 – 15min
0,1 – 1,5h
1 – 15h
ATX: AC 220–240V~
ANP: AC 110–120V~
UFK: UC 24–48V≂
UCB: UC 12V≂
DNX: DC 110–240V⎓

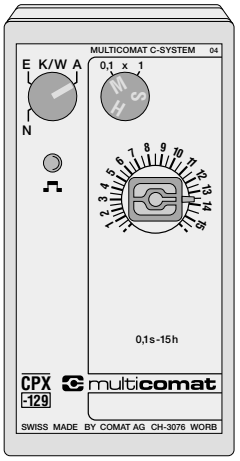


CFG-126

One shot cycle timer

3 double timing modes

F G H
24 23 22
Connection 5-6-7
2x0,1s–15min
2x4
0,1 – 1,5s
1 – 15s
0,1 – 1,5min
1 – 15min
ATX: AC 220–240V~
ANP: AC 110–120V~
UFK: UC 24–48V≂
UCB: UC 12V≂
DNX: DC 110–240V⎓

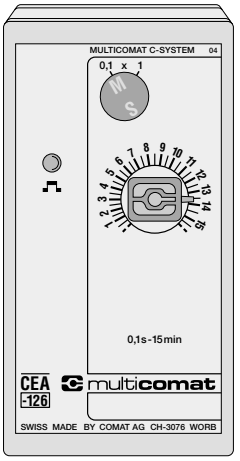


CPX-129

Time delay relay

2 delay modes
3 single shot timing modes

E A K W N
22/23 23 23 22 23
Switch
0,1s–15 h
6
0,1 – 1,5s
1 – 15s
0,1 – 1,5min
1 – 15min
0,1 – 1,5h
1 – 15h
ATX: AC 220–240V~
ANP: AC 110–120V~
UFK: UC 24–48V≂
UCB: UC 12V≂
DNX: DC 110–240V⎓

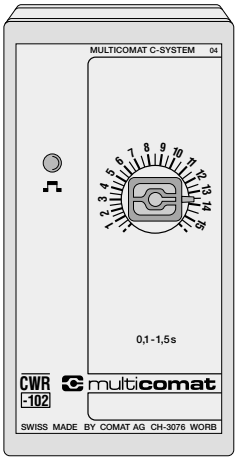


CEA-126

Time delay relay

On delay or
off delay

E A
22/23 24
Connection 5-6-7
0,1s–15 min
4
0,1 – 1,5s
1 – 15s
0,1 – 1,5min
1 – 15min
ATX: AC 220–240V~
ANP: AC 110–120V~
UFK: UC 24–48V≂
UCB: UC 12V≂
DNX: DC 110–240V⎓



CWR-102

Single shot relay

3 single shot timing modes

W N Q (t1 = t2)
22 24 23
Connection 5-6-7
0,1–1,5 s
ATX: AC 220–240V~
ANP: AC 110–120V~
UFK: UC 24–48V≂
UCB: UC 12V≂
DNX: DC 110–240V⎓

Functions

E On delay
S ⇒ R on with delay
SOFF ⇒ R off

A Off delay
S ⇒ R on
SOFF ⇒ R off with delay

K Pulse shaping
S (pulse or continuous contact)
⇒ R on for t
S ▬ no influence on R and t

W One shot leading edge
S ⇒ R on for t
SOFF ⇒ R off
(pulse clipping)

N One shot trailing edge
SOFF ⇒ R on for t
S on for t ⇒ R off

ON OFF
S = triggering
R = output circuit
⇒ = switches...

I Repeat cycle timer, pulse start
S ⇒ R periodically on/off
according to t1 and t2
SOFF ⇒ R off

F On and off delay
S ⇒ R on with delay (t1)
SOFF ⇒ R off with delay (t2)

G On delay - single shot
S (pulse or continuous contact)
⇒ R after t1 on for t2
S ▬ no influence on R and t

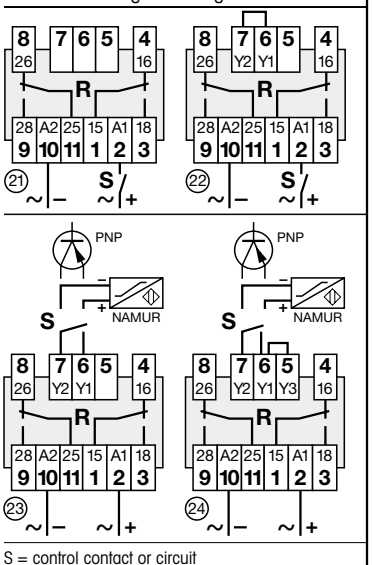
H On delay - single shot
S ⇒ R after t1 on for t2
SOFF ⇒ R off

Q One shot leading and trailing edge
S ⇒ R on for t1
SOFF ⇒ R on for t2
SOFF on for t1 ⇒ R off

ON OFF
S = triggering
R = output circuit
⇒ = switches...

Connection diagram

Terminal marking according to DIN 46199



S = control contact or circuit
R = ouput circuit

Examples of order: 1 Time delay relay CTI-129/ATX

Case S3

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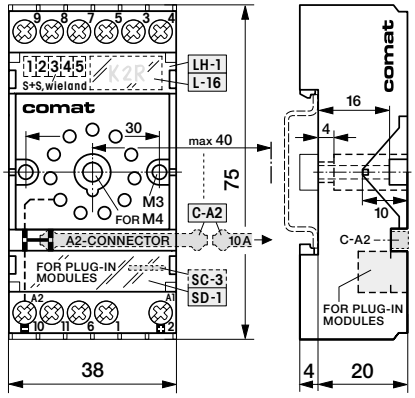
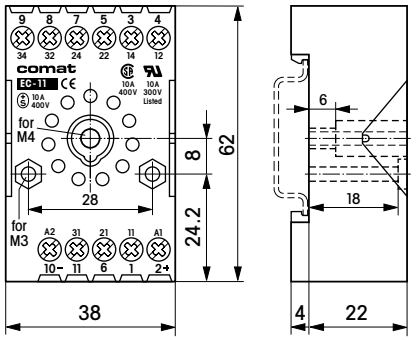
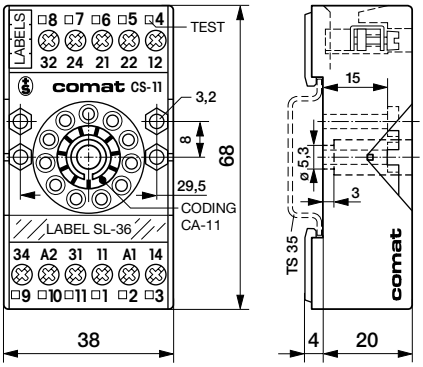
C11A
Relay socket with screw, connections for panel or DIN mounting-snap fit



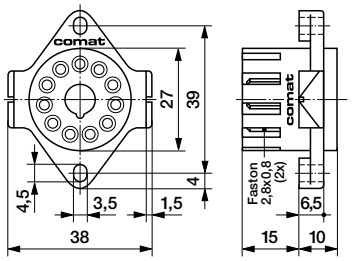
EC-11
Relay socket with screw, connections for panel or DIN mounting-snap fit



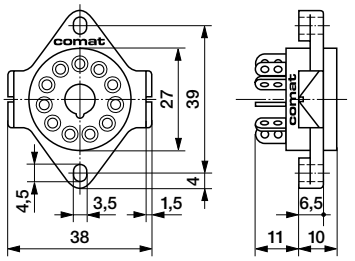
CS-11
Relay socket with screw, connections for panel or DIN mounting-snap fit



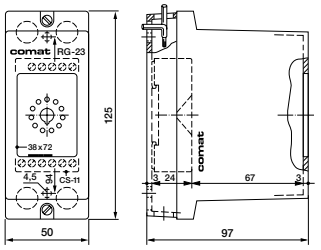
11 PGF
Relay socket for fasten connectors (2xAMP 2,8x0,8 DIN 46247)



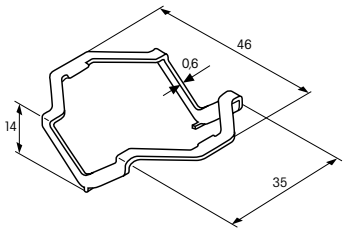
11 PGL
Relay socket for chassis mounting (solder tags: 3,8x0,8 mm)



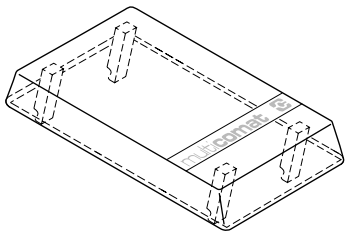
RG-23
Surface mounting case with built-in relay socket (protected connection terminals)



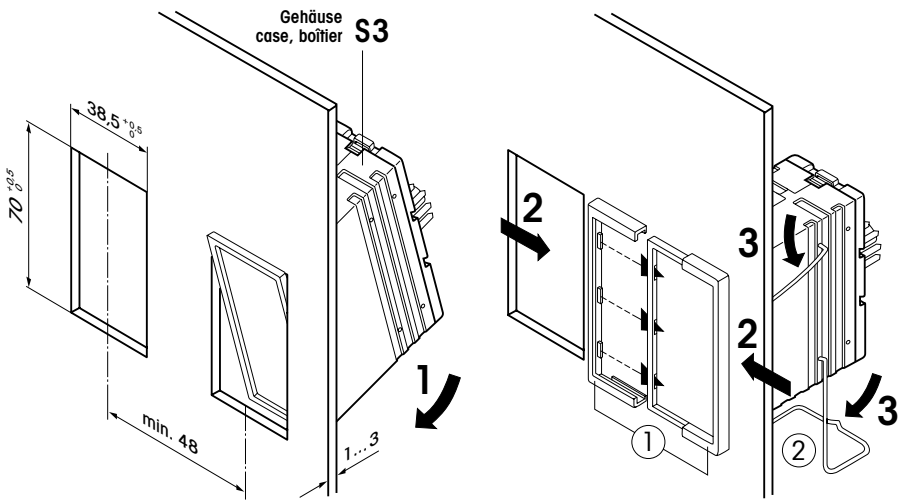
HF-24
Retaining clip made of special spring steel suitable for all relay sockets



FS-23
Transparent cover (always included with the relay)



FZ-23
Front of panel mounting accessory comprising 2 front frame parts ① and 2 retaining clips ②



Example of order: 1 Relay socket C11A