HF-50

Retaining clip | Steel

General data

Ambient temperature storage	-40 … 85 °C
Ambient temperature operation	-25 … 60 °C
Module width	fig. 1
Weight	2 g
Housing material	Steel

Product references

Types	Product reference
Retaining clip	HF-50

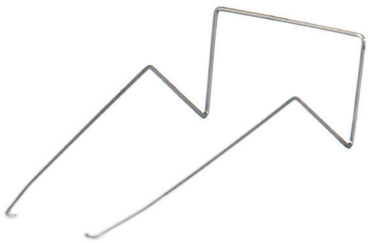
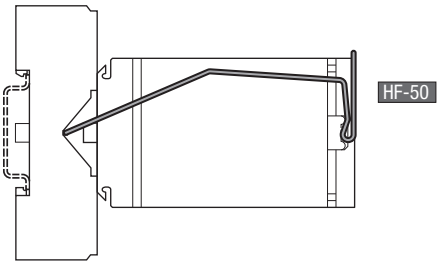


fig. 1. Dimensions (mm)



Time functions

Delay functions

E **On delay**

S ⇒ R on with delay
SOFF ⇒ R off

A **Off delay**

S ⇒ R on
SOFF ⇒ R off with delay

F **On and off delay**

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

Puls shaping

K **Puls shaping**

S (pulse or continuous contact)
⇒ R on for t
S --- no influence on R and t

L **Pulse shaping,** retrigger (subsequ.time operation from 0)

S (pulse or continuous contact)
⇒ R on for t
S on for t = tRESET

M **Puls shaping**

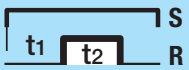
SOFF ⇒ R on for t
S --- no influence on R and t

Delayed pulse

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

Special functions

Y **Star-delta timer**

S ⇒ ⅄ on for t⅄
⅄OFF ⇒ △ on with delay for t⅄-△
SOFF ⇒ △ off

X1 **Restart delay**

S ⇒ R on
SOFF ⇒ R off and starts t
S ⇒ R restart only after t

Shot timing modes

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

Q **One shot leading and trailing edge**

S ⇒ R on for t1
SOFF ⇒ R on for t2
SOFF off for t1 ⇒ R off

Blinker functions

B **Blinker,** pulse start

S ⇒ R on/off periodically
according to t
SOFF ⇒ R off

B1 **Blinker,** pulse start, trailing pulse

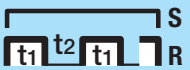
S ⇒ R on/off periodically
according to t
SOFF: last pulse = t

B2 **Blinker,** interval start

S ⇒ R after t on/off periodically
according to t
SOFF ⇒ R off

Repeat cycle timer

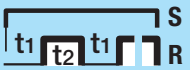
I **Repeat cycle timer,** pulse start



S ⇒ R on/off periodically
according to t1 and t2
SOFF ⇒ R off

P **Repeat cycle timer,** interval start

C55, CT1: t2 t1



S ⇒ R after t1 (t2) on/off periodically according to t2 and t1
SOFF ⇒ R off

Special functions

S **Step-on / Step-off switch**

S ⇒ R on/off

LS **Step-switching** (staircase lighting timer), with time lapse

S ⇒ R on and starts t
S on for t ⇒ R off

Stop / Reset

t STOP SSTOP interrupts t (t-addition)

t RESET SRESET reset t
t restarts immediately

T t is stopped ⇒ R on/off

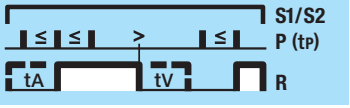
T Test

S = Triggering
R = Output circuit
⇒ = switches…

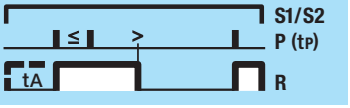
ON OFF

Pulse sequence monitoring

U



V



S1/S2 = Monitoring start
P = Pulse sequence
tP = Pulse separation

≤: Pulse separation is **smaller** than the time tP
>: Pulse separation is **larger** than the time tP

Start with S1 = **without** start-up short-out tA
Start with S2 = start-up short-out tA

tV = settable alarm delay
delay (tA = tV)

Time Cubes

Type	Function																				t-Stop	t-Reset	Ext. Poti	t max.				
	E	A	F	W	N	Q	K	L	M	B	B1	B2	G	H	I	P	S	LS	X1	U	V				sec	min	h	d	Page
CT..-E 30	●																									30			203
CT..-A 30		●																								30			203
CT..-K 30				●			●																			30			203
CT..-B 30										●																30			203

Modular plug-in Time Relays (CT-System)

Type	Function																				t-Stop	t-Reset	Ext. Poti	t max.				
	E	A	F	W	N	Q	K	L	M	B	B1	B2	G	H	I	P	S	LS	X1	U	V				sec	min	h	d	Page
CT32…	●	●		●	●		●			●	●															60*			209
CT33…	●	●	△	●	●	△	●	●		●	●		▲	▲													60*		210
CT36…															●	●											60*		211

Plug-in Time Relays

Type	Function																				t-Stop	t-Reset	Ext. Poti	t max.				
	E	A	F	W	N	Q	K	L	M	B	B1	B2	G	H	I	P	S	LS	X1	U	V				sec	min	h	d	Page
C55	●	●	●	●	●	●	●		●	●			●	●	●	●				●	●	●	●					60	186
C55.3	●	●	●	●	●	●	●		●	●			●	●	●	●				●	●	●	●					60	187
C55.4	●	●	●	●	●	●	●		●	●			●	●	●	●				●	●	●	●					60	188
C56	●	●	●	●	●	●	●		●	●			●	●	●	●				●	●	●	●					60	189
C64		■			■																					20			190
CS2	●	●		●	●		●			●		●											●			60*			193
CS3	●	●		●	●		●			●		●														60*			194

Plug-in Time Relays

Type	Function																				t-Stop	t-Reset	Ext. Poti	t max.				
	E	A	F	W	N	Q	K	L	M	B	B1	B2	G	H	I	P	S	LS	X1	U	V				sec	min	h	d	Page
C83	●	●	△	●	●	△	●	●		●	●		▲	▲													60*			191
C85			●			●							●	●	●	●											60*			192

DIN Time Relays

Type	Function																				t-Stop	t-Reset	Ext. Poti	t max.				
	E	A	F	W	N	Q	K	L	M	B	B1	B2	G	H	I	P	S	LS	Y	U	V				sec	min	h	d	Page
AA2 - AA2M		●																								1,5/12			154
AE2 - AE2M	●																									1,5/12			155
AL1								●																					170
AL3								●									●	●								60			171
AL4								●									●	●								60			172
AL5																	●												173
AM1	●			●						●		●														60			174
AM2	●	●		●			●																			60			175
AM3 [1]	●	●		●			●																			60			176
CM2	●	●		●			●															●	●	●			12		177
CM3	●	●		●	●		●			●	●																60*		178
CMD11 A		●																											152
CMD11 E	●																												153
CIM1	●	●		●	●		●			●	●						●	●									60*		160
CIM12	●	●		●	●		●			●	●						●	●									60*		161
CIM13	●	●		●	●		●			●	●						●	●									60*		162
CIM14	●	●		●	●		●			●	●						●	●									60*		163
CIM2	●	●						●	●			●	●	●													60*		164
CIM22	●	●						●	●			●	●	●													60*		165
CIM23	●	●						●	●			●	●	●													60*		166
CIM3			●			●							●	●	●	●											60*		167
CIM32			●			●							●	●	●	●											60*		168
CIM33			●			●							●	●	●	●											60*		169
CRV4	●	●	△	●	●	△	●	●	●	●	●	●	●	●			●	●						●			60*		180
CSV4	●	●	△	●	●	△	●	●	●	●	●	●	●	●			●	●						●			10*		181
CPF11		●					●	●																	0.6				179
CY1																			●										184

*** TF-60 Setting of long times**

The TF60 time setting methode permits short examination of long delay time settings. Elapsing times of hours can be monitored in the sec. range.

Example for a delay time of 38h:

1. Set range switch to 60sec
2. Set 38sec on the potentiometer (e.g. check 38sec by chronometer)
3. Set range switch to 60h

The delay time now amounts to 38h.

[1] alternatively with instantaneous contact
■ without auxiliary voltage (relay bistable)
□ without auxiliary voltage (relay monostable)
△ t2 = t1
▲ t2 = 0.5s