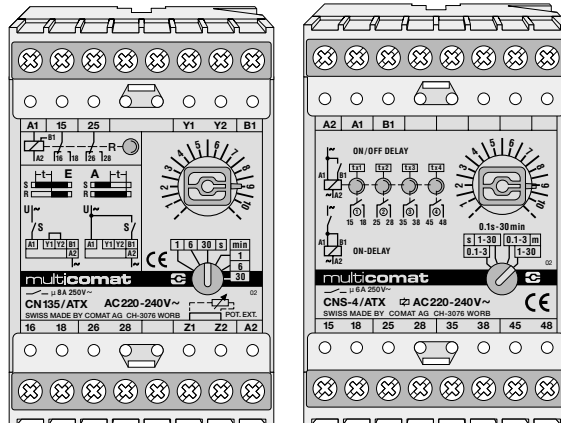
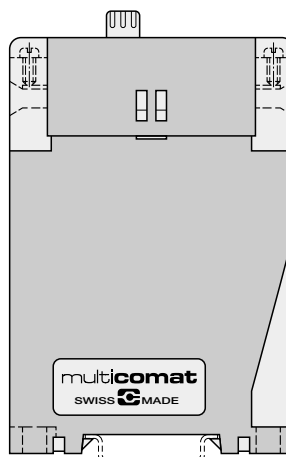


Programmable time delay relays CN



- Industrial time delay relays CN 135 with 2 output contacts
- Electronic program sequence relays CNS-4 with 4 individually delayed N/O-contacts
- Programmable timing modes
- Programmable time ranges from 0,1 s – 30 min
- Design 50 x 75 mm (mounting standard grid as DIN 43 660)
- Case for snap fastening on DIN-rail TS 35 (DIN 46 277) or screw fixture
- Hook-up wiring by means of two quick-release screw block terminals or faston connectors acc. DIN 46 247
- Possibility of interchanging the device without disconnecting the wiring
- Connection for external potentiometer (CN 135)



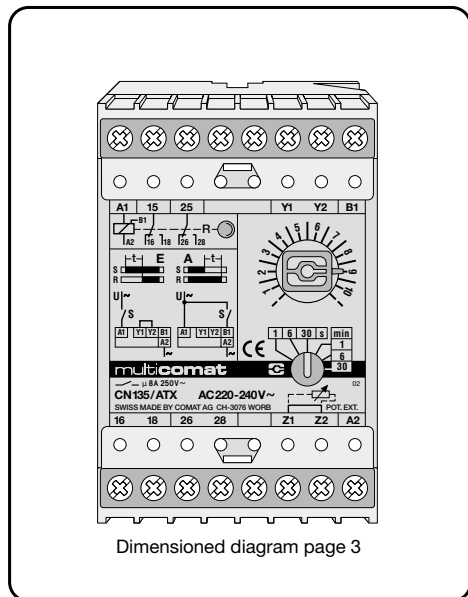
M 1:2

Type	Time range	Partial range		
CN135	0,1 s – 30 min	0,1 – 1 s	0,6 – 6 s	3 – 30 s
		0,1 – 1 min	0,6 – 6 min	3 – 30 min

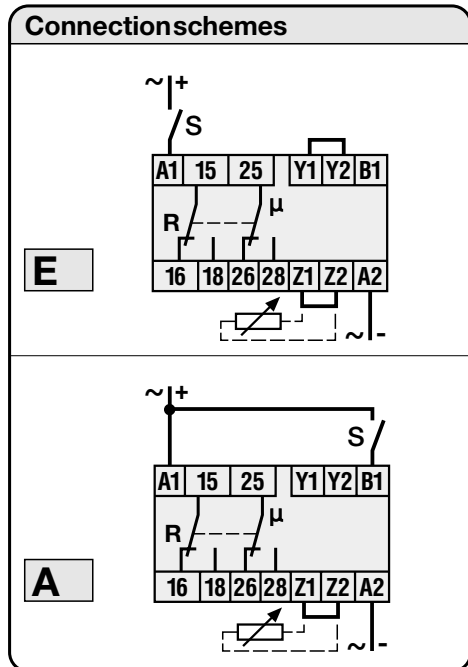
The partial ranges are programmable at the range switch

Voltage, current consumption, type					
	AC 50/60 Hz		AC40–60 Hz oder DC		Type
	U min – U max	I max	U min – U max	I max	
AC220–240V~	-15% – +10%	15 mA			CN 135/ATX
AC110–120V~	-15% – +10%	20 mA			CN 135/ANP
UC24–48V~			-15% – +25%	45 mA	CN135/UFK

Example of order: 1 time delay relay CN 135/ATX



Timing modes	Diagram	Description
On delay		S ⇒ R on with delay SOFF ⇒ R off
Off delay		S ⇒ R on SOFF ⇒ R off with delay



Technical Data		General
Repeat accuracy ¹⁾		±0,2% oder 20 ms
Voltage stability		1%/V // <1,5%
Temperature stability		0,15%/°C ΔTamb
Time range tolerance max.		t min. -25% +0% / t max. -0% +25%
Remote potentiometer		1 M Ω, lin.
Remote circuit capacity max.		1000 pF/Δt 1%
Reset time during time expiry	E: 50 ms; A: 25 ms	
Reset time after time expiry	E: 20 ms; A: 10 ms	
Triggering time		AC: ≥ 40 ms; DC: ≥ 25 ms
Triggering delay time		5 ms/DC, 15 ms/AC
Load of triggering contact S		E: see voltage table; A: 0,7 W
Operating temperature range		-25... + 60°C
Storage temperature range		-25... + 85°C
Humidity		10...90% n. kond.
Transient voltage protection		3 kV, 50 μs / 2,5W
Specifications		SEV, VDE 0435/0110 Gr. C, CE
Protection/case material		IP 40/Noryl SE 1 to UL 94 V-1
Weight incl. packing		appr. 240 g, with transformer 330 g

¹⁾ referred to the set time Daten bei Tamb=25°C und Vnom

Technical Data	output circuit
Switching current max.	8A
Switching voltage max.	250V~
Breaking capacity	AC: 1500VA; DC: ...250W
Mechanical life	3x10 ⁷ operations
Contact material	Ag Ni

Valid for ohmic load or for inductive loading with spark arrest.

Accessories

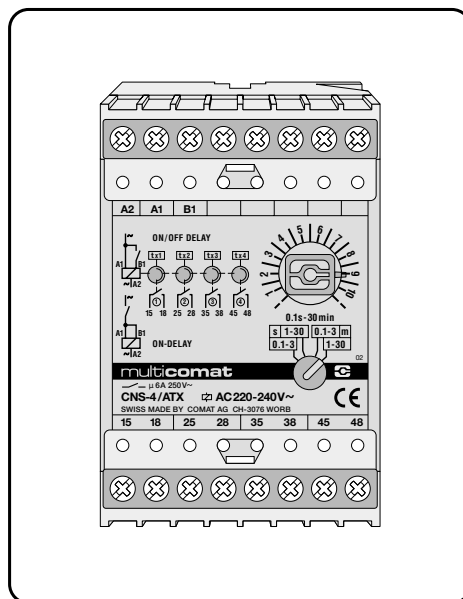
Remote potentiometer (order no. SP-01/1M)

Ready-to-fit adjustable potentiometer with connection terminals. Front protection IP65

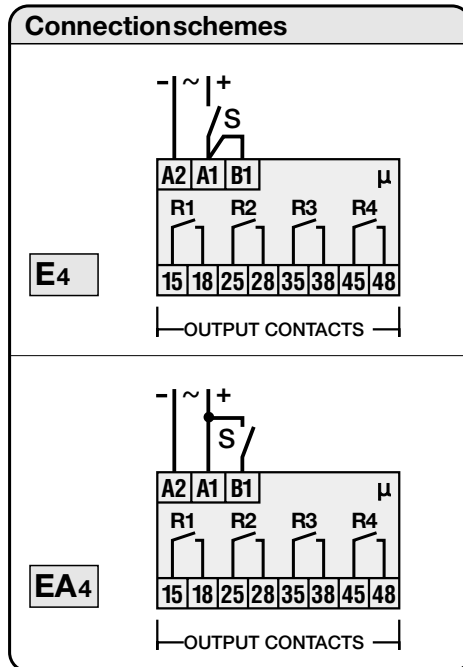
Type	Time range	Partial range	
CNS-4	0,1 s – 30 min	0,1 – 3 s	1 – 30 s
		0,1 – 3 min	1 – 30 min
The partial ranges are programmable at the range switch			

Voltage, current consumption, type					
Symbol	AC 50/60 Hz		AC40–60 Hz oder DC		Type
	U min – U max	I max	U min – U max	I max	
AC220–240V~	-15% – +10%	15mA			CNS-4/ATX
AC110–120V~	-15% – +10%	30mA			CNS-4/ANP
UC24–48V~			-15% – +25%	90 mA	CNS-4/UFK

Example of order: 1 program time delay relay CNS-4/ATX



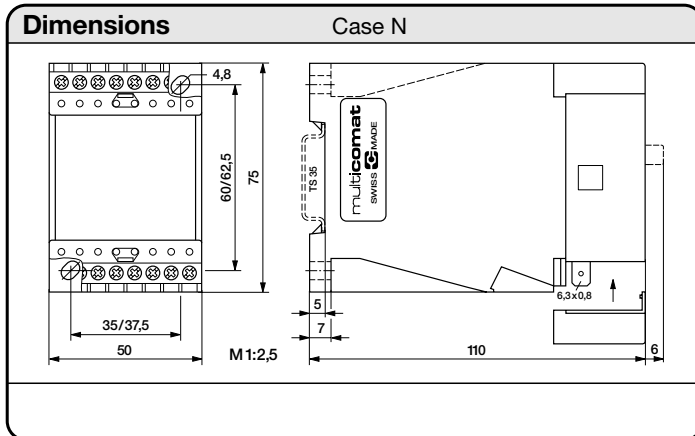
Timing modes	Diagram	Description
ON-DELAY		<p>After closing triggering contact S the N/O-contacts of the output relays R1 to R4 close as follows: R1 after 1xt, R2 after 2xt, R3 after 3xt and R4 after 4xt. After opening S the closed R1 to R4 immediately release to the N/O-position.</p>
ON/OFF-DELAY		<p>After closing triggering contact S the N/O-contacts of the output relays R1 to R4 close as follows: R1 after 1xt, R2 after 2xt, R3 after 3xt and R4 after 4xt. After opening S the closed contacts R1 to R4 release in delayed reverse sequence from 1xt to 4xt to the N/O-position.</p>



Technical Data	General
Repeat accuracy ¹⁾	± 0,2% oder 20 ms
Voltage stability	1% / V // <1,5%
Temperature stability	0,05% / °C Δ Tamb
Time range tolerance max.	t min. -25% +0% / t max. -0% +25%
Reset time during time expiry	50 ms
Reset time after time expiry	50 ms
Load of triggering contact S	E4: see voltage table; EA4: 0,7 W
Operating temperature range	-25... + 60 °C
Storage temperature range	-25... + 85 °C
Humidity	10%...90% n. kond.
Transient voltage protection	3 kV, 50 μs / 2,5Ws
Specifications	SEV, VDE 0435/0110 Gr.C, CE
Protection/case material	IP 40/Noryl SE 1 to UL 94 V-1
Weight incl. packing	ca. 360 g

¹⁾ referred to the set time Daten bei Tamb=25°C und Vnom

Technical Data	output circuit
Switching current max.	6A
Switching voltage max.	250V~
Breaking capacity	AC: 1500VA; DC: ...250W
Mechanical life	3x10 ⁷ operations
Contact material	Ag Ni
Valid for ohmic load or for inductive loading with spark arrest.	





Kühn Controls AG

Notes:

You want more information about this product, please call us: tel: +49 (0)7082-940000 or send us a fax: +49 (0)7082-940001, or email: sales@kuehn-controls.de or visit our Website: www.kuehn-controls.de