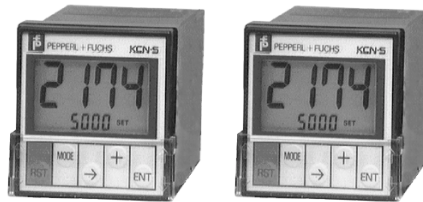


- Addition/Subtraction Counters
- 1 preselection
- 4 decade devices
- LCD indicator with background illumination



### Order code

KCN-4SR-V  
KCN-4SR-C1

KCN-4ST-V  
KCN-4ST-C1

### Technical data

#### General data

Preselection

Data storage

#### Controls and indicators

Type

Number of decade devices

Digit height (Counter value/preselection)

Parameter assignment

Scaling factor

Decimal point

Reset

#### Inputs

Counting frequency

Input impedance

Input voltage

Operating modes of inputs

#### Delay times

External reset

Manual reset

Automatic reset

Disconnection time on power failure

Time delay before availability

Counter inhibit input

Switch on/switch off delay, timer operation

#### Outputs

Output

Delay times at

30 Hz/1 kHz/2 kHz/5 kHz

Counter functions

Timer functions

Timer pulse duration

#### Electrical data

Alternating voltage (KCN-...-V)

Direct voltage (KCN-...-C1)

Power supply for sensor (KCN-...-V)

#### Ambient conditions

Ambient temperature

Storage temperature

Relative air humidity

Weight (AC-Type/DC-Type)

Dimensions (L x H x D)

AC-Type

DC-Type

single  
double in timer operation  
10 years, EEPROM

LCD

4

13 mm/4 mm

via keypad, menu driven

0.001 ... 9.999

freely adjustable

manual

30 Hz/1 kHz/2 kHz/5 kHz

2.2 k $\Omega$  (positive logic)

low: 0 ... 6 V DC

high: 16 ... 30 V DC

addition/subtraction or  
90° phase shift

5 ms

0.1 s

500  $\mu$ s (2.5 ms for 5 kHz  
counting frequency)

$\geq 1$  s

$\leq 1$  s

2.5 ms (On/Off delay)

15 ms

2 x relay 220 V AC, 2 A,  
(Ohmic load)

$\leq 19$  ms/ $\leq 6$  ms

$\leq 5.5$  ms/ $\leq 7.5$  ms

see graphic page 29

see graphic page 29

10 ... 9990 ms

90 ... 264 V AC, 5 VA

10 ... 28 V DC, 2 W

20 ... 28 V DC, 15 mA

-10 ... 50 °C

-25 ... 70 °C

35 ... 85 % (non-  
condensing)

220 g/110 g

48 x 48 x 96 mm

48 x 48 x 61 mm

single  
double in timer operation  
10 years, EEPROM

LCD

4

13 mm/4 mm

via keypad, menu driven

0.001 ... 9.999

freely adjustable

manual

30 Hz/1 kHz/2 kHz/5 kHz

2.2 k $\Omega$  (positive logic)

low: 0 ... 6 V DC

high: 16 ... 30 V DC

addition/subtraction or  
90° phase shift

5 ms

0.1 s

500  $\mu$ s (2.5 ms for 5 kHz  
counting frequency)

$\geq 1$  s

$\leq 1$  s

2.5 ms (On/Off delay)

15 ms

2 x PNP, normally-closed  
collector, 24 V, 15 mA

$\leq 14$  ms/ $\leq 1$  ms

$\leq 0.5$  ms/ $\leq 2.5$  ms

see graphic page 29

see graphic page 29

10 ... 9990 ms

90 ... 264 V AC, 5 VA

10 ... 28 V DC, 2 W

20 ... 28 V DC, 15 mA

-10 ... 50 °C

-25 ... 70 °C

35 ... 85 % (non-  
condensing)

220 g/110 g

48 x 48 x 96 mm

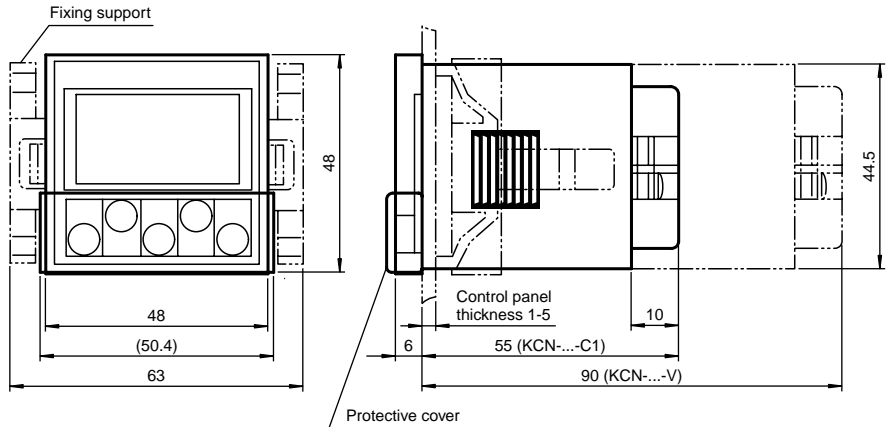
48 x 48 x 61 mm

Connection  
Maximum permissible core cross-section

KCN-4SR-V	KCN-4ST-V
KCN-4SR-C1	KCN-4ST-C1
Screw terminals	Screw terminals
0.34 ... 1.5 mm <sup>2</sup>	0.34 ... 1.5 mm <sup>2</sup>

KCN-4SR-V  
KCN-4SR-C1  
KCN-4ST-V  
KCN-4ST-C1

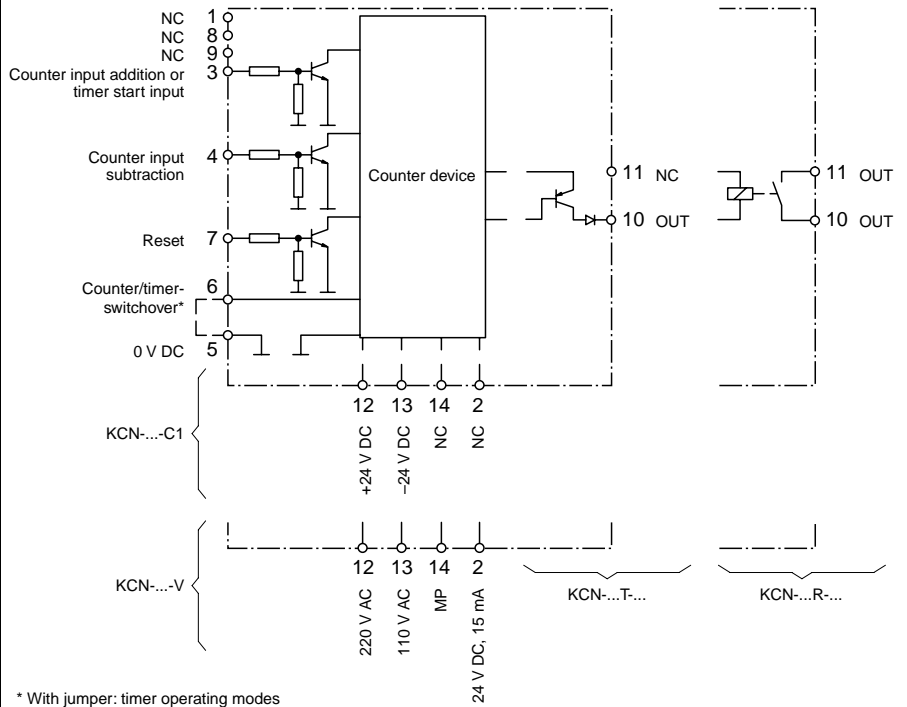
Dimensions



Additional features

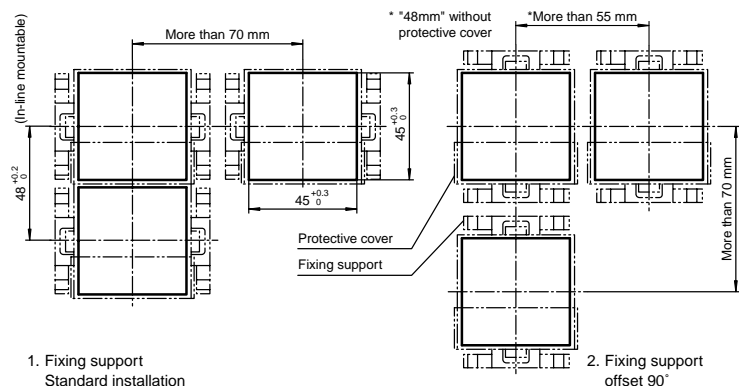
- Counting frequency up to 5 kHz
- Power supply for pulse counter
- Display storage
- Menu driven programming
- Transistor or relay output
- Power supply for sensors (only KCN-...-V)
- Protection class IP64 in accordance with DIN EN 60529 (front only)
- Shock resistance in accordance with DIN EN 60068-2-27
- Vibration resistance in accordance with DIN EN 60068-2-6

Electrical connection

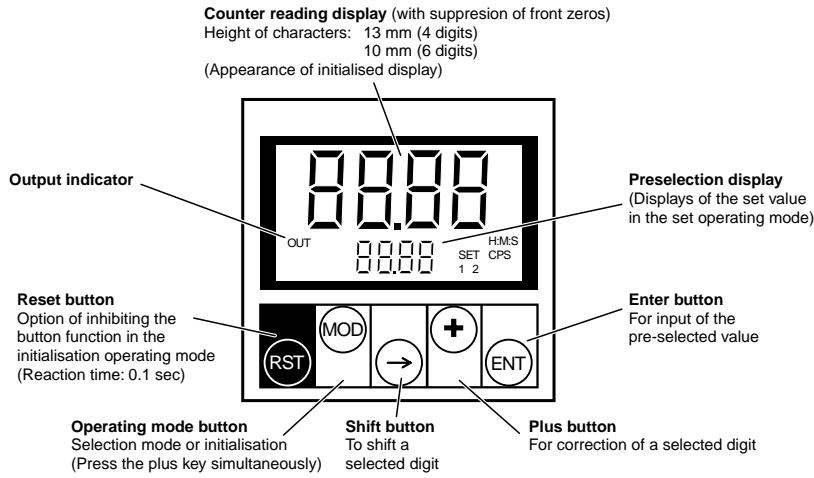


\* With jumper: timer operating modes  
NC = not used

Installed dimensions

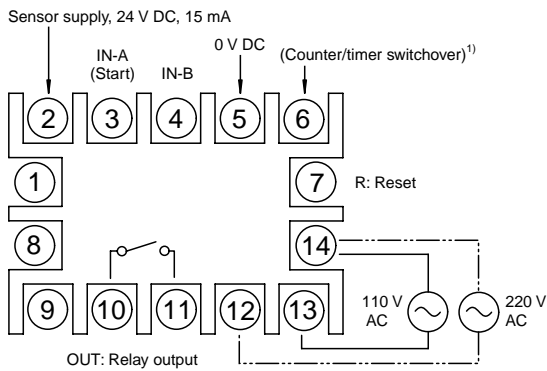


Issue date 14.06.2000

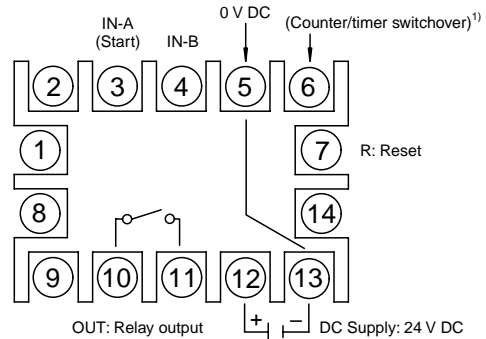


Terminal assignment

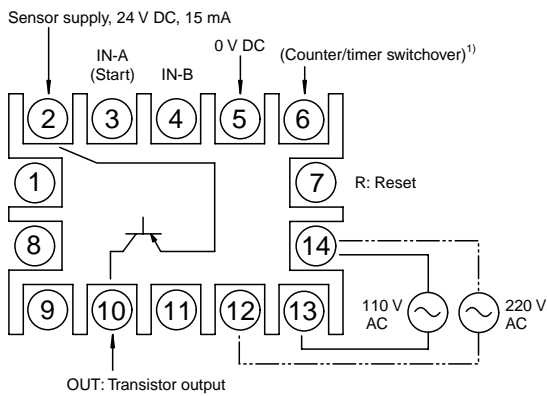
KCN-4SR-V



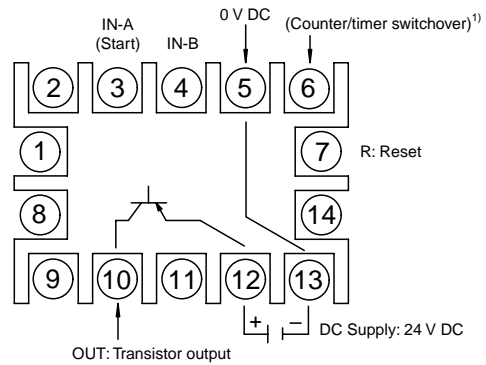
KCN-4SR-C1



KCN-4ST-V

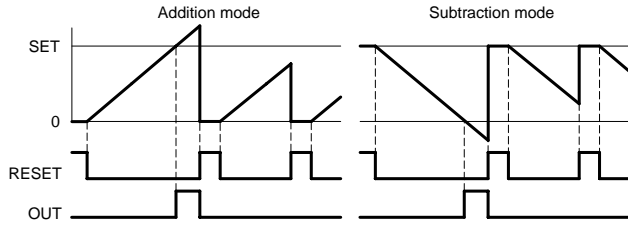


KCN-4ST-C1

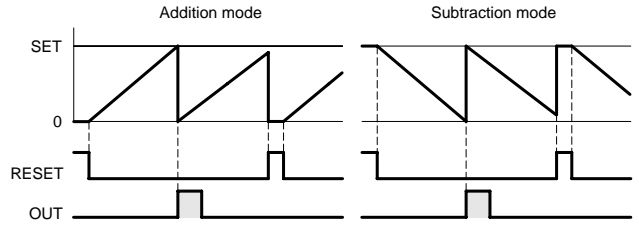


<sup>1)</sup> KCN-4S... only

**Mode 1** Output: Permanent output/counter advance



**Mode 2** Output: Pulse output/counter reset

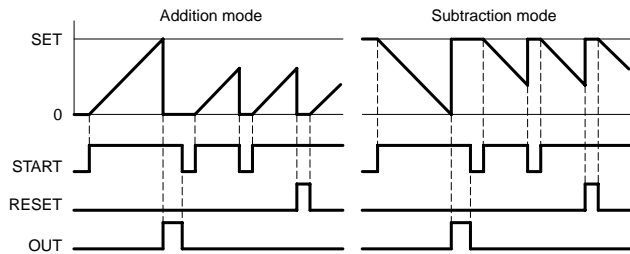


**Important:**

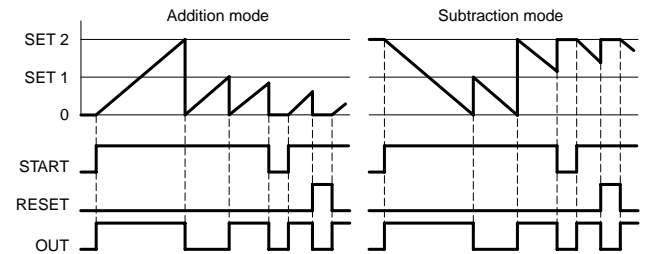
- indicates "Momentary impulse output" (10 ms to 9.99 sec)
- In mode 2 only counting rates of 30 Hz or 2 kHz are possible (Even if 5 kHz is selected, the 2 kHz setting becomes effective).

Timer functions

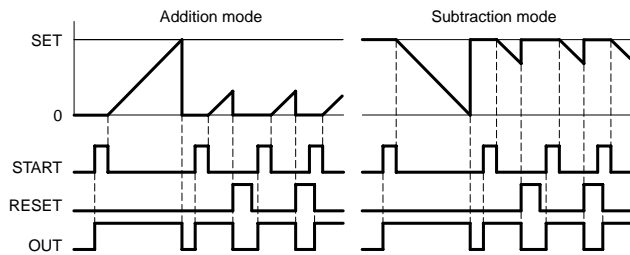
**Mode A: Signal on delay**



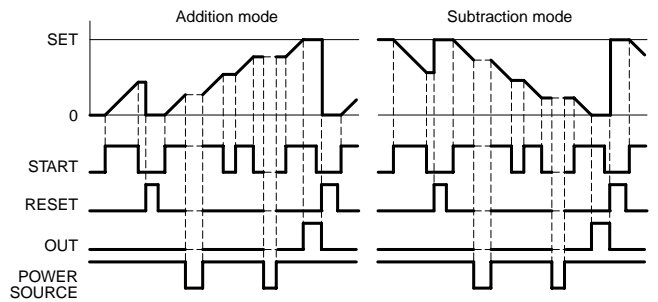
**Mode D: Clock pulse generator**



**Mode B: Signal off delay**



**Mode E: Integration**



**Mode C: One-shot**

