

Type 715



Your benefit

- 5 digit preset counter with one preset point, add./subtr.
- bright 5 digit LED display with 7,5 mm high characters
- programmable as pulse counter, frequency meter or timer
- Supply voltage: 230 V AC, 115 V AC or 11 ... 30 V DC
- approval

Further product features

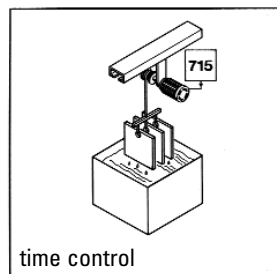
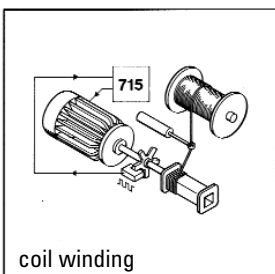
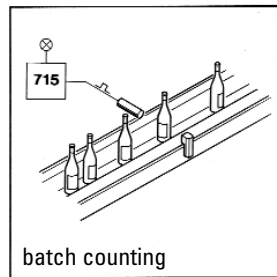
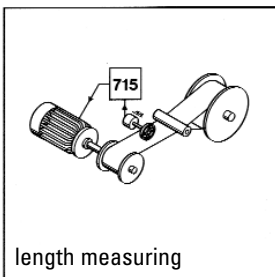
- display range -19999 ... 9999 with zero blanking
- easy programming of preset pint; one key for each digit
- Relay or optocoupler output
- prescaling factor 0.001 ... 9.999

Technical data

Supply voltage:	11 ... 30 V DC, with reverse polarity protection 115 V AC, 230 V AC
Current consumption:	max. 100 mA, 4 VA
Display:	5 digit 7 segment red LED display; 7.5 mm high characteristics
Polarity of input signals:	programmable, all inputs in common.
Input resistance:	approx. 10 kΩ
Count frequency:	via DIL switches separately selectable for INP A and INP B 30 Hz, 10 kHz (7.5 kHz for input mode E4) automatical reset 1 kHz without count losses (600 Hz for input mode E4)
Min. pulse length of the control inputs:	5 ms
Input sensitivity:	DC supply voltages: Low: 0 ... 0.2 x U _B [V DC] High: 0.6 x U _B ... 30 V DC AC supply voltages: Low 0 ... 4 V DC High 12 ... 30 V DC
Pulse shape:	variable (Schmitt Trigger characteristic)
Output Relay:	wit potential-free change-over contact

Optocoupler:	switching voltage max. 250 V AC/300 V DC switching current max. 3 A, switching current for DC min. 30 mA switching performance: max. 50 W for DC max. 2000 VA for AC
Responding time of outputs:	Relay: appr. 6 ms Optocoupler: appr. 1 ms
Data retention:	min. 10 Years or 10 ⁶ memory cycles
Transmitter voltage:	24 V DC -40 %/+15 %, 80 mA unstabilized for AC versions
Ambient temperature:	0 ... +50 °C
Storage temperature:	-25 ... +70 °C
EMC:	EN 61 000-6-4/EN 55011 class B EN 61 000-6-2
UL certified:	File E128604
Protection:	IP65 (front)
Weight:	appr. 240 g, (AC-version with relay)

Applications



Operating modes			
Operating modes	Counting starts at	Output signal at count value	Kind of signal
1	0	≥ preset value	permanent or timed signal
2	preset value	≤ 0	permanent or timed signal
3	0	= preset value	timed signal and autom. reset
4	preset value	= 0	timed signal and autom. reset

Selection of basic function

1. Pulse counter

Mode: see table

Decimal point: 0 ... 3 decimal places (only optical function)

Polarity: npn or pnp

Input modes:

E1: One count input and one count direction input. While this input is not activated the counter adds, if it is activated the counter will subtract.

E2: Differential input, one up input and one down input

E3: Quadrature input for two lines of count pulses 90° out of phase. Up and down counting is automatic.

E4: Quadrature input with pulse doubling. Each pulse edge of count input "A" will be counted. Up and down counting is automatic.

Prescaling factor: 0,001 ... 9,999

Output signal: Permanent signal or timed signal selectable (0,01 ... 99,98 s)

2. Frequency counter

Gate: Gate time selectable from 0,001 ... 99,99 s

Decimal point: 0 ... 3 decimal places

Polarity: npn or pnp

Input modes: see pulse counter E1 ... E4

Scaling factor: 0,001 ... 9,999

Output signal: Permanent or timed signal selectable (0,01 ... 99,98 s)

3. Timer

Operating mode: see pulse counter

Counting: s, min or h;

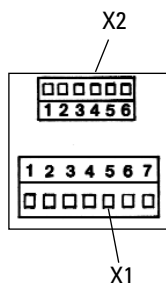
Resolution: 0,001; 0,01; 0,1 or 1,0

npn or pnp

Polarity: npn or pnp

Output signal: Permanent signal or timed signal (0,01 ... 99,98 s)

Connection diagram:



Plug connection X1:

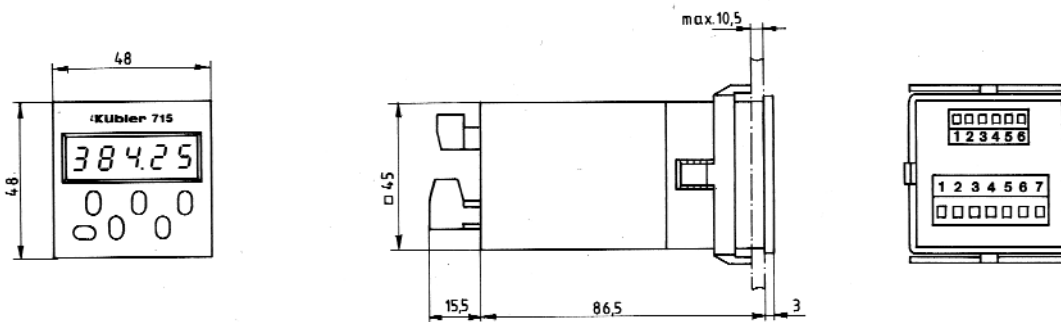
Pin	115/230 V AC version	11 ... 30 V DC version
1	+24 V DC transmitter voltage	–
2	0 V DC (GND)	–
3	Relay output common contact (C) Optocoupler output Emitter	
4	Relay output normally open contact (NO)	
5	Relay output normally closed (NC) Optocoupler output collector	
6	115 V AC/230 V AC	11 ... 30 V DC
7	115 V AC/230 V AC	0 V DC (GND)

Plug connection X2:

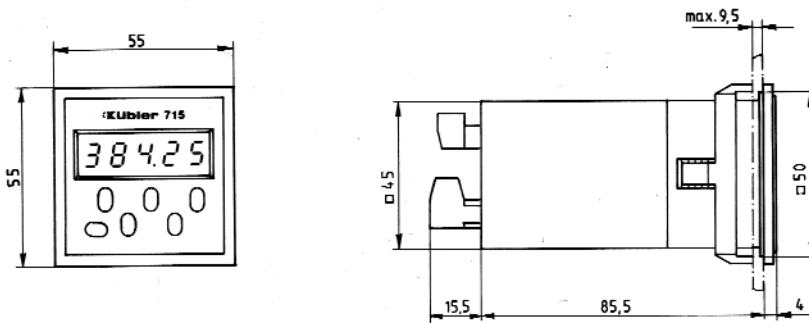
Pin	Designation	Function
1	INP A	Count input A
2	INP B	Count input B
3	Gate	gate input
4	Reset	reset input
5	Latch	display stop input
6	Key	keyboard lock input

Dimension:

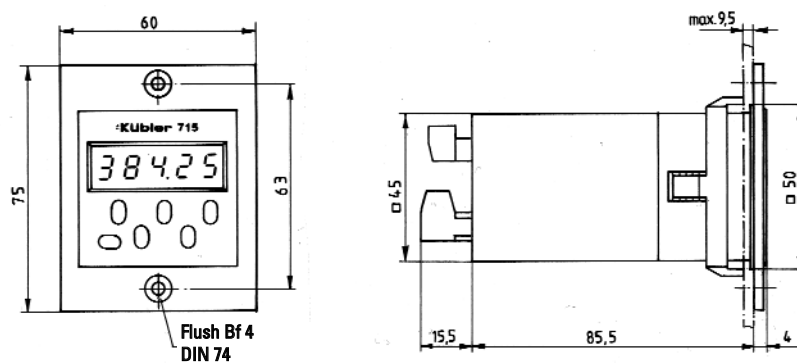
715: panel cut-out 45 x 45 mm



715: with front frame 2
panel cut-out 50 x 50 mm



715: with front frame 3
panel cut-out 50 x 50 mm



Delivery specification:

Counter 715

- 1 screw terminal plug 7 pin
- 1 screw terminal plug 6 pin
- 1 bezel for screw mount panel cut-out 50 x 50 mm
- 1 bezel for clip mount panel cut-out 50 x 50 mm
- 1 panel mounting clip
- 1 panel cut-out template
- 1 operating manual

Order code

6.715.01X.X00

Supply voltage
 0 = 230 V AC
 1 = 115 V AC
 3 = 11 ... 30 V DC

Output
 0 = Relay
 1 = Optocoupler