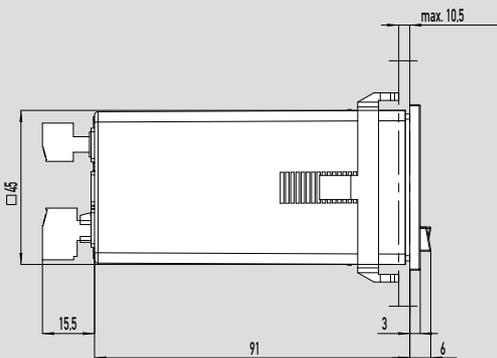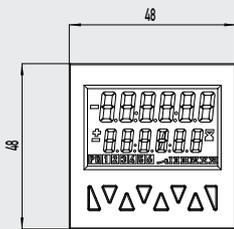## ■ Digital preselection counter

BAUSER

type 320 R

Multifunctional preselection counters, AC or DC, programmable as a pulse, frequency or time counter, 48 x 48 mm

These counters are easily programmable and cover the following application fields: preselection of pulses, cutting into lenghts, dosing, time control, speed and rate supervision, flow control. Batch counter with main counter and automatic reset, total counter with main counter and automatic reset.

Description:

- ■ 6 digit LCD preselection counter with polarity sign
- ■ 2-line indication for counter status and preselection value
- ■ symbols for active outputs and current preselection
- ■ programmable as pulse, frequency or time counter
- ■ simple operation and preselection of values via decade buttons
- ■ scaling over multiplication and division factor 0,0001 to 99,9999
- ■ one preselection
- ■ relay output
- ■ voltage: 90-...260 V AC or 10-...30 V DC
- ■ DIN housing 48 x 48 mm
- ■ electrical connection through plug-in screw terminals

Programmable features are:

- ■ operating mode, polarity of the inputs, input type, factor, decimal point
- ■ output signals as continuous or wiping contact
- ■ automatic repeat
- ■ period measurement as frequency counter, while programming
- ■ resolution in sec., min., h or h:min:sec as time counter

Inputs:

INP A, INP B
- ■ Counter input; the maximum counting frequency of these two inputs is settable on 30 Hz or 55 kHz. (Details see maual).

Gate
- ■ Static gate input; no counting while this input is activated.

Reset
- ■ Dynamic reset input: has the same function as the red SET button and resets the counter to zero (accumulative counting mode) or to the preselection value (subtractive counting mode).
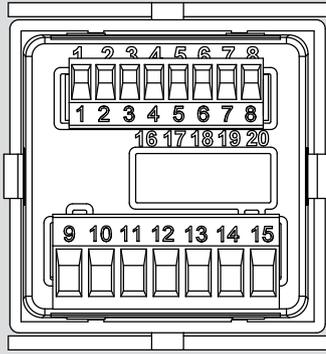
Lock
- ■ Static input for locking of the buttons; while this input is activated the buttons in front remain locked for operation.

MPI (multi purpose input (user input))
- ■ Programmable as display latch, set (set of set value), or teach input.

Outputs
- ■ 1 potential-free output as relay.

connection diagram

pin	description	AC-version / DC-version
1	+24 V DC	transmitter voltage supply
2	0 V DC (GND)	GND
3	INP A	count input A
4	INP B	count input B
5	Reset	reset input
6	Lock	key locking input
7	Gate	gate input
8	MPI	user input
		for set, teach and latch
9	n. c.	
10	n. c.	
11	output	
	relay common contakt (C)	
12	output relay	
	normally open (NO)	
13	output relay normally close (NC)	
14	supply voltage	
	90 ... 260 V AC, bzw. 10 - 30 V (DC-version)	
15	90 ... 260 V AC, bzw. 0 V (DC-version)	

Programming:

The programming of the counter 320 R takes place via decade buttons on the front of the unit. A user guidance on the display offers an operation without problems. Here you can effect all adjustments and the corresponding parameters can be selected out of one menu.

Programmable are:

Polarity of the inputs

■ Switching positive (PNP) or negative (NPN). The selection is valid for all inputs at the same time.

Operation variants, pulse or time counting

■ accumulative with starting to count from zero

■ subtractive with starting to count from the preselection value

■ accumulative with automatical reset by reaching the preselection value

■ subtractive with automatical setting on the preselection value by reaching of zero

■ main counter with automatical reset and batch counter

■ main counter with automatical reset and total counter

Input variants, pulse and frequency counter

■ cntdir: 1 counting input, 1 switching input for the counting direction

■ updn: 1 counting input upwards, 1 counting input down

■ quad: up up both input adding mode, quadrature input

■ quad2: quadrature input with pulse doubling (only counter)

■ quad4: quadrature input with pulse quadruplication (only counter)

■ A/B: ratio measurement A/B

■ A%B: percentage differential counting

■ upup: 1+2 counting input upwards

Decimals

■ The indication can be effected without, with 1-5 decimal places after the decimal point.

Factor

■ For an optimal transmitter adjustment the counting values can be preselected with a factor between 0.0001 - 99.9999 and divisor between 01.0000 - 99.9999.

Output signal

■ The output signal can be preselected as make or break contact, positive or negative wiping signal, duration 0.01 to 99.99 sec.

Frequency counter with a high accuracy period measurement

■ Measuring range 1/sec and 1/min and 6 different input modes programmable.

Time counter

■ The counting can be done in h, min. or sec., with a resolution of 0,001; 0,01; 0,1 and 1,0 or in h:min:sec. 4 different input modes (start) programmable.

■ Digital preselection counter

Included in delivery

- ■ **1 preselection, 1 relay output**
- ■ **plug-in screw terminals, 7-pole, grid 5,08 mm, core cross section max. 2.5 mm**
- ■ **plug-in screw terminals, 8-pole, grid 3,81 mm, core cross section max. 1.5 mm**
- ■ **frontal frame for retaining clip fixing 48 x 48 mm mounting cross section 45 x 45 mm**
- ■ **retaining clip**

Technical specifications:

indication:	2 lines, 6 digits, 7 segments LC-display with polarity sign
character height:	9 / 7 mm
preselection:	1 preselection
counting input:	2 counting inputs, 8 input variants programmable
polarity of the inputs:	programmable, switching positive (PNP) or negative (NPN)
input resistance:	5 kOhm
max. counting frequency:	55 kHz, reducable to 30 Hz (details see manual)
min. pulse time of the control inputs:	10 msec.
min. pulse time of the reset input:	1 msec.
switching level of the inputs:	at AC supply: Log "0": 0...4 V DC, Log "1": 12...30 V DC
	at DC supply: Log "0": 0...0,2 x Ub, Log "1": 0,6 x Ub...30 V DC
pulse form:	variable, Schmitt-trigger input
output:	1 relay output
transmitter voltage:	24 V DC, 80 mA at 90-...260 V AC, DC supply 80 mA
	external voltage is connected through
value recording:	minimum 10 years or 10^6 memory cycles
interference resistance:	EN 61000-6-2
interference transmission:	EN 55011, class B
operation temperature:	-20 to +65 °C
housing:	48 x 48 mm DIN
protection class:	IP 65 (front)
operating voltage:	90 - 260 V AC
	10 - 30 V DC