

Loop detectors LOOP

- diagnostic function
- accepts reliable loop constructions of 40μH ... 1000μH
- display of loop frequency
- error diagnostic display
- quick reaction time, 10ms/20ms
- several operating modes adjustable
- high response sensitivity
- adjustable impulse mode for loop 2
- special functions possible on request



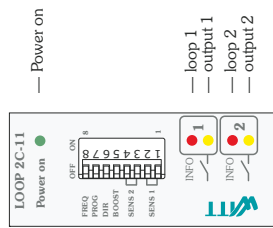
Declaration of conformity
EMC directive 2014/30/EU
EN 61000-6-2 and EN 61000-6-3



Technical Data

operating voltage	24VDC or 230VAC	switching output	potential-free
power consumption	max. 2VA / 2W	degree of protection	changeover contacts
reaction time	10ms (1-channel loop) 20ms (2-channel loop)	operating temperature	max. 250V/6A
loop inductance	40...1000μH	storage temperature	IP30
loop frequency	20...120kHz	connection	-20...+60°C -35...+70°C
display	displayed via LED blink code	weight	11-pin plugin base for screw- and DIN-rail mounting, cable diameter max. 1,5 mm ²
adjustable operating modes	LED red error diagnosis LED yellow switching state LED green Power-On	size	incl. plugin base: max. 163g (230V) 35x65x75mm, size without plugin base
1 channel device:	boost function		
2 channel device:	- pulse output - pulse output for loop 2 approx. 1s after leaving of loop, - direction detection		

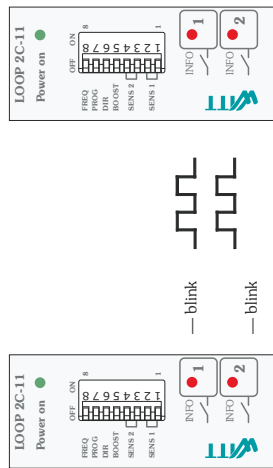
Diagnostic function



Start/operation

When the loop is switched on all LED's will light up for about 3s.

green LED = power on
yellow LED = switching state



Diagnostic

The loop frequency is shown with the red blinking LED.

slow blinking: 10kHz
fast blinking: 1kHz
e.g.: 5x long/3x short = 53kHz
nominal = 20...120kHz

Error report

If the loop was defective due to a loose contact, for instance, the red LED flashes.

red blinking LED = loop defective

Functional description operating modes

Boost

Increase of sensitivity for the safe detection of for example trucks or truck and trailer combinations. Hereby faulty switching is being avoided.

Pulse output - 1 channel device

The second relay of the 1-channel LOOP can be used as a pulse generator. If the loop is in use the relay is activated for 800ms which is for controls that can not work with a continuous contact.

Pulse output - 2 channel device

With DIP switch 7 in ON-position the output is a pulse output when leaving the loop. This function is realised for approx. 1s.

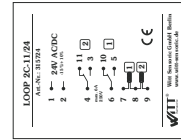
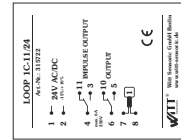
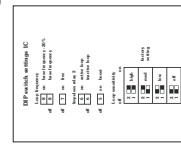
Direction detection

With this function one of the two loops of the 2-channel system can be deactivated which is necessary for cross traffic masking. Always when loop 1 is active before loop 2 the door/gate stays closed. If loop 2 is active first the door/gate will open.

Base frequency -20%

Reduces the frequency of loop 1 by about 20%. Thus interference with other loops is being reduced.

Terminal assignments



loop 1 = relay 2
loop 2 = relay 1