

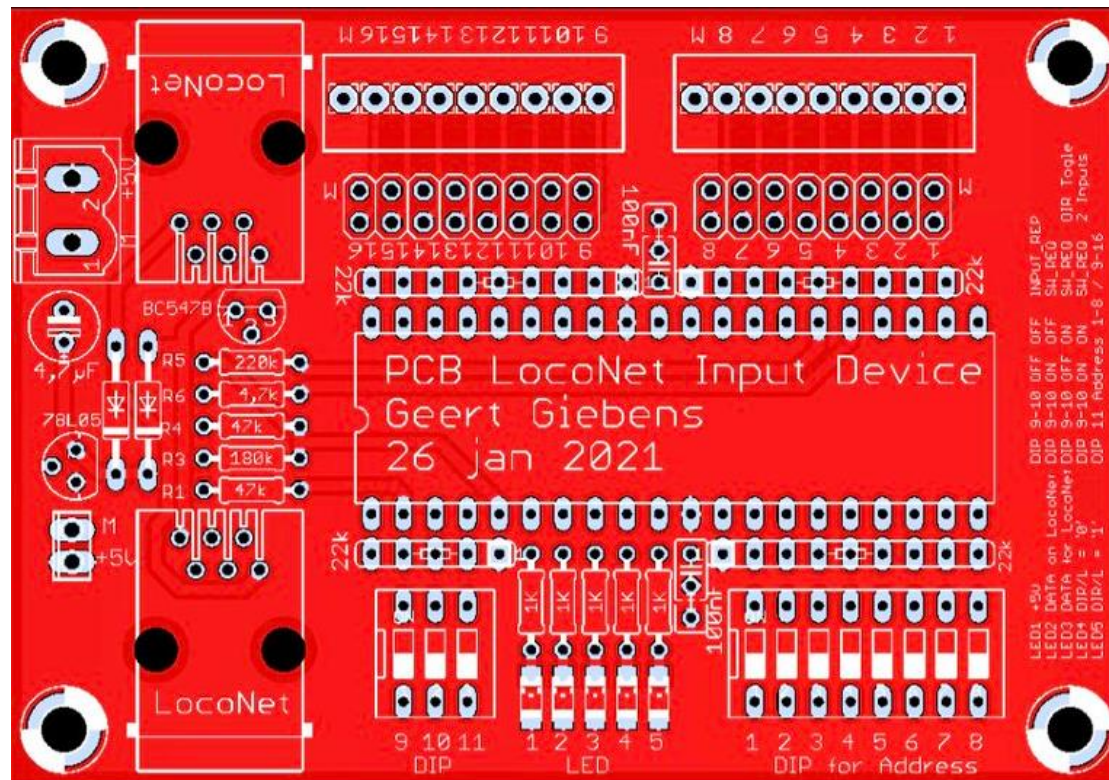
This device can send a LocoNet message. This device has 16 inputs that all have the same function.

With this device it has been chosen to perform the settings of function and address with dip switches. No programming with a computer or central station is required.

There are several options for cabling connections on this device, including plug-in connections for easy device exchange.

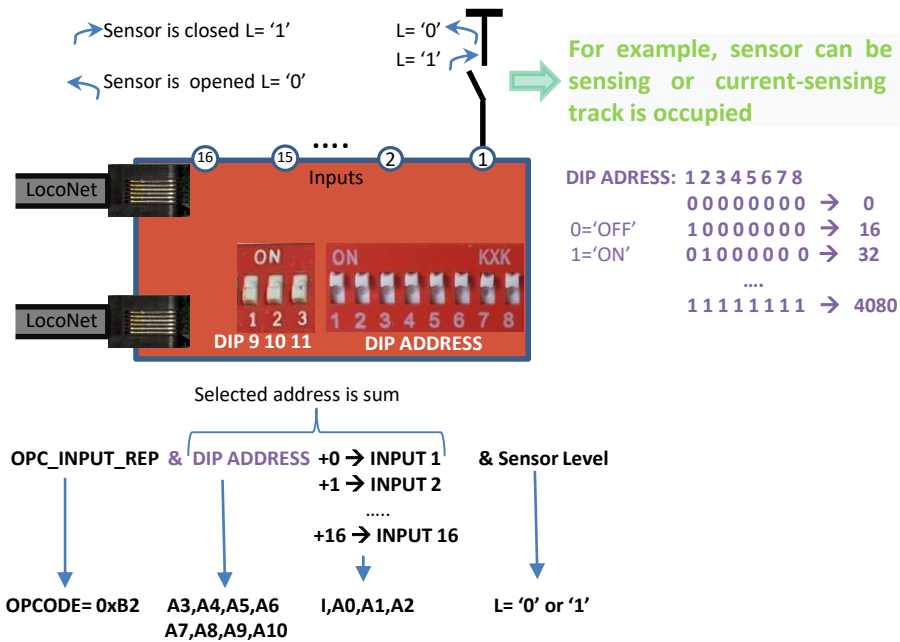
The function can be selected via DIP9 and DIP10. The address of input 1 can be set with DIP ADDRESS1-8 (and optionally DIP11) in steps of 16 per device . The other 15 inputs have an ascending address with respect to input 1.

More information about the LocoNet opcodes can be found in 'Personal Use Edition 1.0 SPECIFICATION' on Digitrax website.



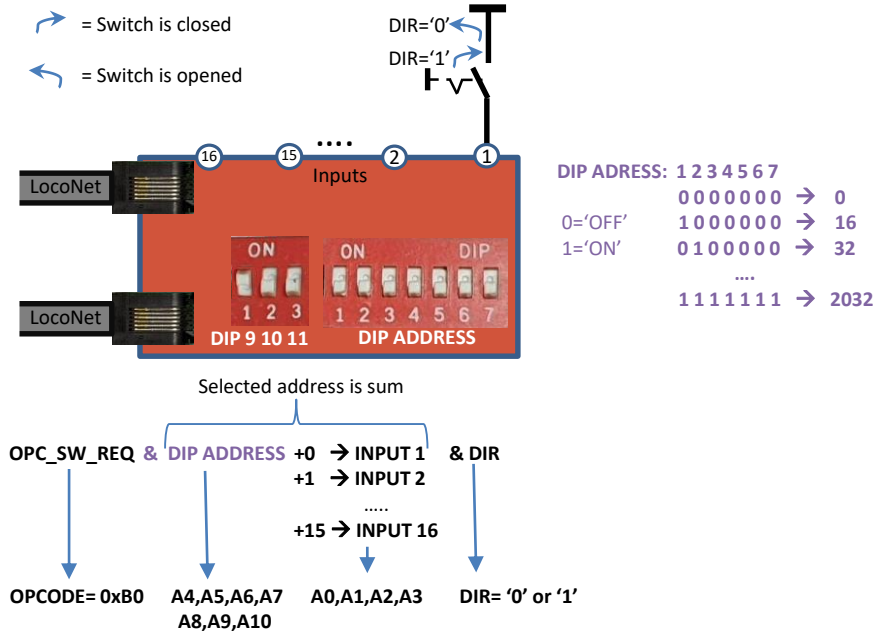
DIP 9 = 'OFF'  
 DIP10 = 'OFF'  
 DIP11 = XXX

Device give LocoNet command OPC\_INPUT\_REP with selected address. Sensor is high L='1' as switch is closed, and sensor is low L='0' where switch is opened.



**DIP 9 = 'ON'**  
**DIP10 = 'OFF'**  
**DIP11 = XXX**

Device give LocoNet command OPC\_SW\_REQ with selected address, and DIR = '1' as switch is closed, and DIR = '0' where switch is opened.

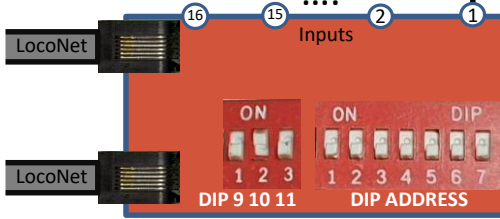


DIP 9 = 'OFF'  
DIP10 = 'ON'  
DIP11 = XXX

Device give LocoNet command OPC\_SW\_REQ with selected address, and DIR is alternating between '0' and '1' every time the button is pressed.  
The current DIR state is stored in EEPROM, so that it can be taken over after power-on.

→ = Push Button

Alternating { DIR='0' DIR='1' }



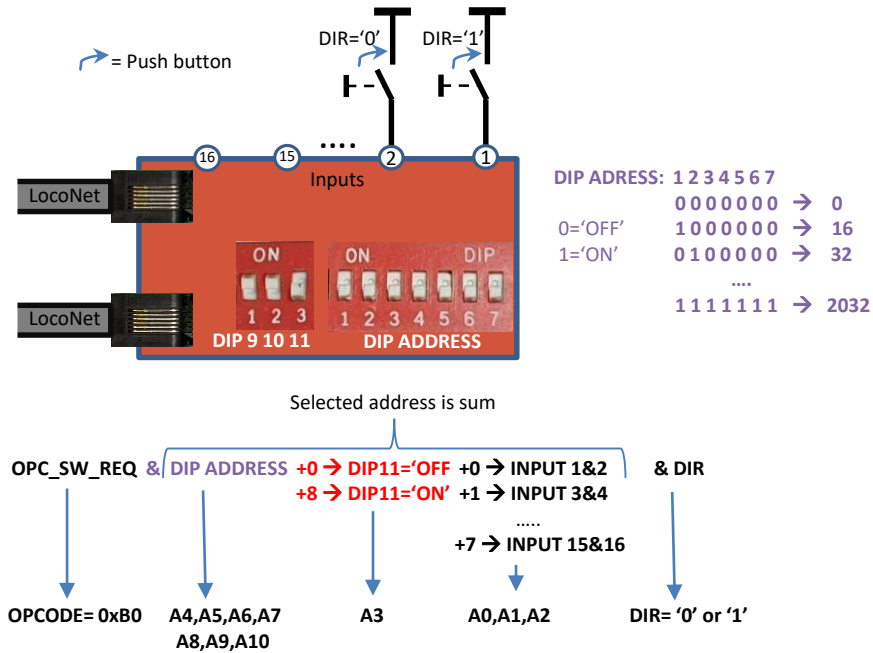
DIP ADDRESS: 1 2 3 4 5 6 7  
0000000 → 0  
0='OFF' 1000000 → 16  
1='ON' 0100000 → 32  
....  
1111111 → 2032

Selected address is sum

OPC\_SW\_REQ & DIP ADDRESS +0 → INPUT 1 & DIR  
+1 → INPUT 2  
.....  
+15 → INPUT 16  
↓  
OPCODE= 0xB0 A4,A5,A6,A7 A8,A9,A10 A0,A1,A2,A3 DIR= '0' Alternating '1'

**DIP 9 = 'ON'**  
**DIP10 = 'ON'**  
**DIP11 = 'OFF' or 'ON'**

Device give LocoNet command OPC\_SW\_REQ and two consecutive inputs with the same selected address. First input gives DIR='1' when button closed. Second input gives DIR='0' when button closed.



Indication leds on this device:

**LED1:** 5V present. If 5V for device comes from LocoNet (via 78L05 voltage stabilizer) and the LED does not light up, there is a problem with the network.

**LED2:** Lights up (0.1s) when a message is read from LocoNet. All messages are read, including those coming from this device. Failure to illuminate this LED may indicate a problem with the network.

**LED3:** Lights up when this device has LocoNet commands in send buffer and goes out when all commands have been sent successfully. If this LED stays on, it may indicate that there is a problem with the network.

**LED4:** Lights up (0.2s) when a LocoNet command is placed in the sent buffer where DIR = '1'.

**LED5:** Lights up (0.2s) when a LocoNet command is placed in the sent buffer where DIR = '0'.