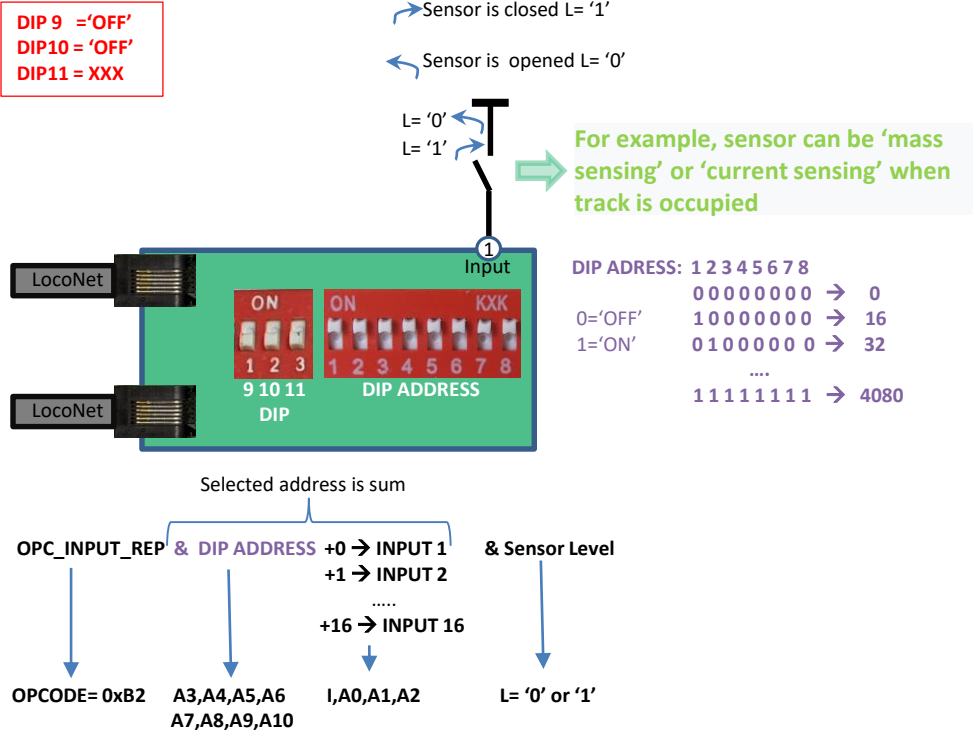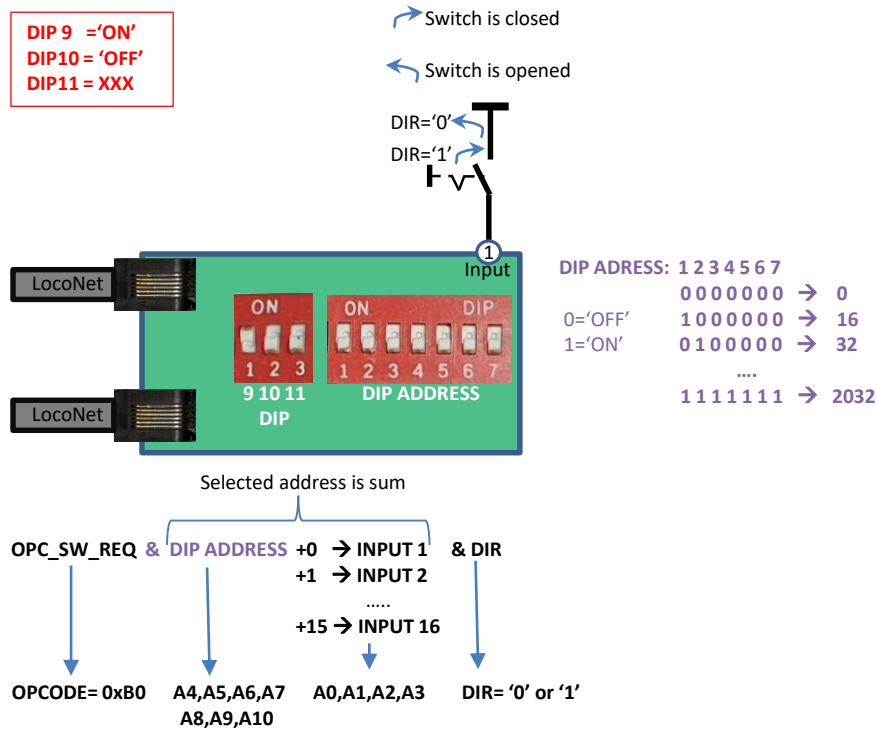**Device give LocoNet command OPC_INPUT_REP with selected address. Sensor is high L='1' as switch is closed, and sensor is low L='0' where switch is opened.**

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

Sensor is closed L= '1'

Sensor is opened L= '0'

L= '0'
L= '1'

For example, sensor can be 'mass sensing' or 'current sensing' when track is occupied

LocoNet

LocoNet

ON

ON   KXK

1 2 3

1 2 3 4 5 6 7 8

9 10 11   DIP ADDRESS
DIP

1
Input

DIP ADRESS: 1 2 3 4 5 6 7 8
              0 0 0 0 0 0 0 0 →   0
0='OFF'   1 0 0 0 0 0 0 0 →   16
1='ON'   0 1 0 0 0 0 0 0 →   32
                    ....
              1 1 1 1 1 1 1 1 →   4080

Selected address is sum

OPC_INPUT_REP   & DIP ADDRESS   +0 → INPUT 1   & Sensor Level
                                +1 → INPUT 2
                                   .....
                                +16 → INPUT 16

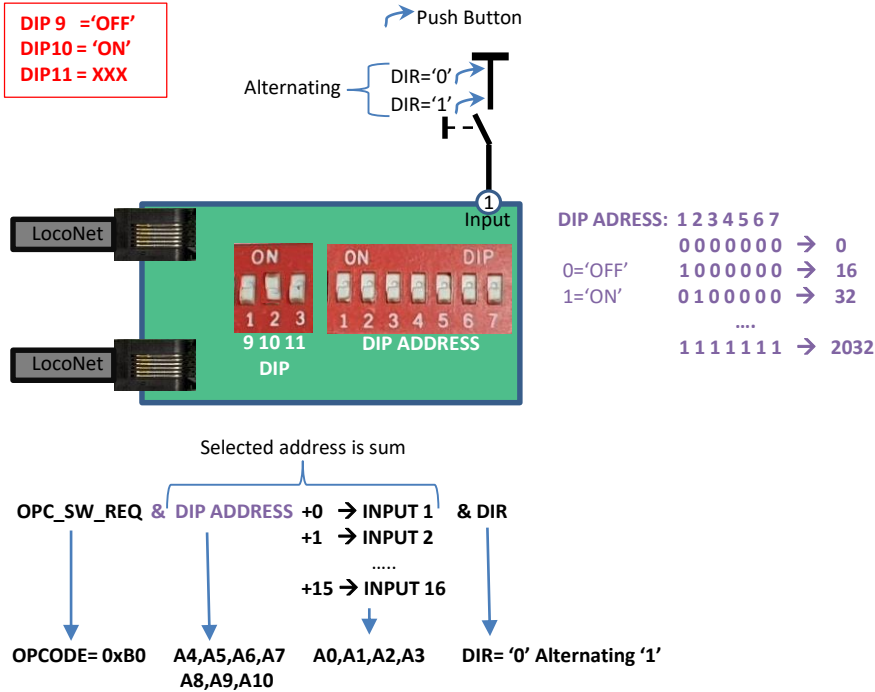OPCODE= 0xB2   A3,A4,A5,A6   I,A0,A1,A2   L= '0' or '1'
                A7,A8,A9,A10

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 ='ON'
DIP10 = 'OFF'
DIP11 = XXX

Switch is closed

Switch is opened

DIR='0'
DIR='1'

LocoNet

ON

ON   DIP

1 2 3   1 2 3 4 5 6 7

9 10 11   DIP ADDRESS
DIP

LocoNet

Input
1

DIP ADRESS: 1 2 3 4 5 6 7
                     0 0 0 0 0 0 0 → 0
0='OFF'   1 0 0 0 0 0 0 → 16
1='ON'   0 1 0 0 0 0 0 → 32
                            ....
                     1 1 1 1 1 1 1 → 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   A0,A1,A2,A3   DIR= '0' or '1'
                         A8,A9,A10

Device give LocoNet command OPC_SW_REQ with selected address, and DIR is alternating between '0' and '1' every time the button is pressed

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

Push Button

Alternating — DIR='0'
DIR='1'

① Input

LocoNet

ON   ON   DIP
1 2 3   1 2 3 4 5 6 7
9 10 11   DIP ADDRESS
DIP

LocoNet

DIP ADRESS: 1 2 3 4 5 6 7
              0 0 0 0 0 0 0 → 0
0='OFF'   1 0 0 0 0 0 0 → 16
1='ON'   0 1 0 0 0 0 0 → 32
              ....
              1 1 1 1 1 1 1 → 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   A0,A1,A2,A3   DIR= '0' Alternating '1'
                A8,A9,A10

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.

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

Push button

DIR='0'   DIR='1'

2   1
Input

LocoNet

ON   ON   DIP

1 2 3   1 2 3 4 5 6 7
9 10 11   DIP ADDRESS
DIP

LocoNet

DIP ADRESS: 1 2 3 4 5 6 7
                0 0 0 0 0 0 0 → 0
0='OFF'   1 0 0 0 0 0 0 → 16
1='ON'   0 1 0 0 0 0 0 → 32
                ....
                1 1 1 1 1 1 1 → 2032

Selected address is sum

OPC_SW_REQ & DIP ADDRESS +0 → DIP11='OFF' +0 → INPUT 1&2   & DIR
                          +8 → DIP11='ON'   +1 → INPUT 3&4
                                            .....
                                       +7 → INPUT 15&16

OPCODE= 0xB0   A4,A5,A6,A7   A3   A0,A1,A2   DIR= '0' or '1'
                A8,A9,A10