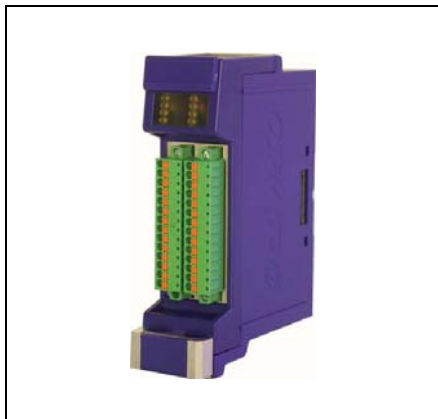


# NAMUR input 1410



- NAMUR input module
- 4 channels
- 24 VDC
- Shock and vibration approved
- Galvanically isolated via optical coupler
- Short circuit protected

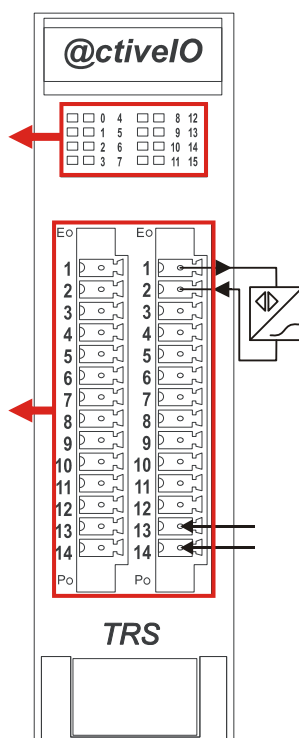


## Pinout

LED	Signal
0; (8)	Ch0: Sensor input 0
1; (9)	Ch1: Sensor input 1
2; (10)	Ch2: Sensor input 2
3; (11)	Ch3: Sensor input 3
4; (12)	Ch0: Error input 0
5; (13)	Ch1: Error input 1
6; (14)	Ch2: Error input 2
7; (15)	Ch3: Error input 3

LED	Signal
E:	-
P:	Power supply active, red
PIN	Signal
1	UV0 Sensor supply
2	DIN0 Sensor input
3	UV1 Sensor supply
4	DIN1 Sensor input
5	UV2 Sensor supply
6	DIN2 Sensor input
7	UV3 Sensor supply
8	DIN3 Sensor input
9	Power +24 V
10	Power 0 V
11	Power +24 V
12	Power 0 V
13	Power +24 V
14	Power 0 V

All Power 24 VDC and  
All 0 V are internal connected



## Attributes

**Data format:**  
Standard Byte (8 bit) format

**Applications:**  
Signal analysis in accordance with EN50277 (NAMUR)

available prints :

- @P1410L: 4 Namur sensors (EN50277)
- @P1410R: 4 Namur sensors (EN50277)

### Related Applications:

8 bit digital input:

- @P1800: 8 bit, 24 VDC, 2 msec

8 bit fast digital input:

- @P1801: 8 bit, 24 VDC, 200 µsec

4 bit digital input:

- @P1400: 4 bit, 24 VDC, 2 msec

8 bit digital input:

- @P1803: 8 bit, 12 VDC, 2 msec

8 bit digital input with 10k Ohm

- @P1804: 8 bit, 24 VDC  
10k Ohm Pull Down

## Electrical Data

Power supply external.....	+24 V ± 20 %
Operation current.....	55 mA at +24 V
Operating current @ctiveBus.....	90 mA at +3,3 V / 0 mA at +5 V

# NAMUR input 1410

## System Information

System ID .....	0x0D
System address space.....	8 bit in, 8 bit out

## Environmental Conditions

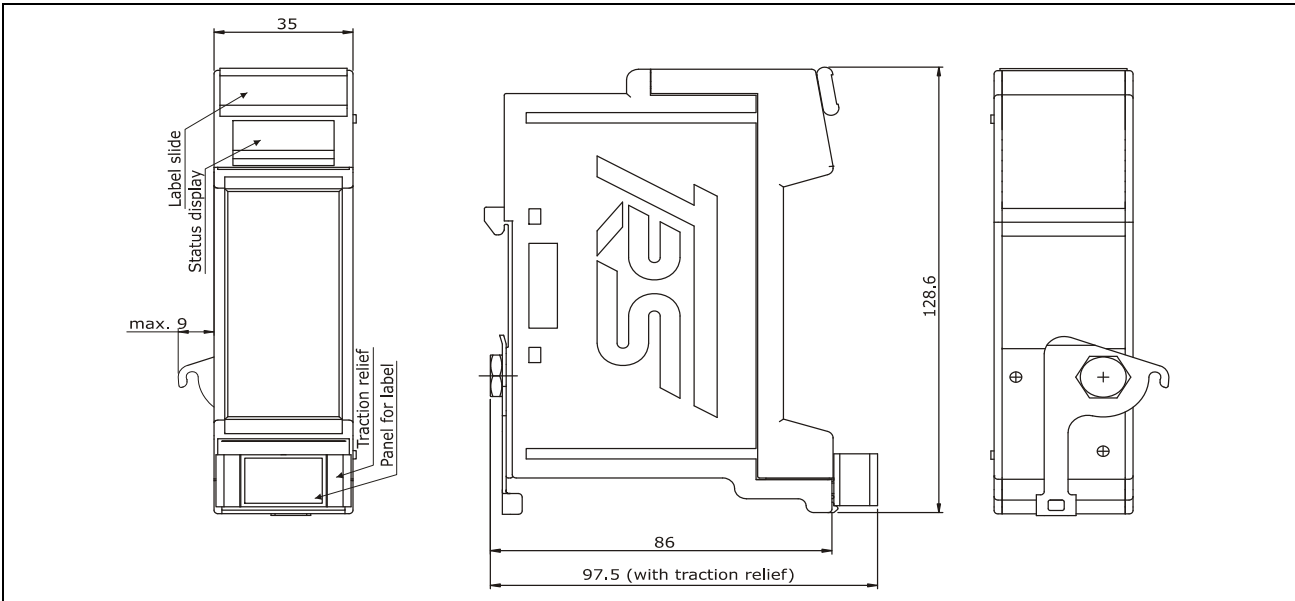
Electromagnetic compatibility (EMC) .....	EN61000-6-4 according EN55011
.....	EN61000-6-2 according EN61000-4-2, -4-4
Operating temperature [°C].....	0 .. +55
Storage temperature [°C].....	-20 .. +70
Humidity (rel.).....	98 % (non condensing)
Protection class* .....	IP 20 (DIN 40 050)

\*The protection class is valid only with housing and connector installed

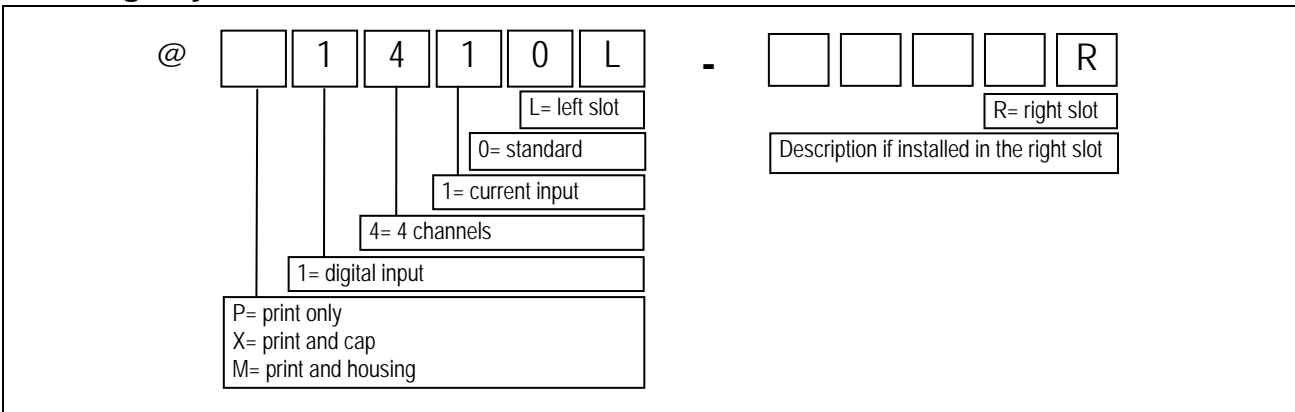
## Mechanical Data PCB

Weight.....	approx. 0.05 kg including connector
Dimension.....	105 mm x 80 mm x 12 mm

## Drawing (effective if mounted in @M housing)



## Ordering Key



## NAMUR input 1410

### Example of Application:

The digital input module @P1410 analyses the input signal from Namur sensors in with EN 50277 (previously DIN 19234). One bit indicates the sensor's signal state in the process image, another bit signals short circuits or open leads. The LEDs indicate the signal and error state of each channel.

Description	Value
"0" signal current	< 1.2 mA
"1" signal current	> 2.1 mA
Switching hysteresis (signal)	0.2 mA
Switching hysteresis (short circuit)	0.1 mA
Sensor supply voltage	< 8.2 VDC
Short circuit current	< 8.2 mA
Short circuit detection	> 6.5 mA
Open lead detection	< 0.2 mA
Input filter	3.0 ms
Electrical isolation	500 Vrms

### Data alignment:

#### MSB

Err4	Err3	Err2	Err1	Sig4	Sig3	Sig2	Sig1
------	------	------	------	------	------	------	------

SigX: .....Namur input signal of channel Nr. X  
 ErrX:.....Namur error signal of channel Nr. X