Product Datasheet

Product Characteristics

SE-EX-DI16
MCP230017 I2C GPIO Expander
16 x Digital Inputs Sink / Source

Product Certifications

Product is certified to comply with CE Standards
2014/30/EU- Electromagnetic Compatibility (EMC)
Annex III, Part B, Module C

EN 61131-2:2007
EN 61010-1:2010+A1:2019
EN IEC 61010-2-201:2018

Product Specifications

Range of Product	SENS EX
Product type	I/O Expansion Module
Rated supply voltage	24V DC
Discrete input number	16 discrete input
Communication	I2C

Main

Supply voltage limits	20.4….28.8V
Inrush current	<=10A
Discrete logic input	Sink or source
Discrete input voltage	24V DC
Voltage state 1 guaranteed	=15 V for input

Voltage state 0 guaranteed	<=5 V for input
Discrete input current	5 mA for input
Input impedance	4.7k Ohm for input
Local signaling	1 LED green for PWR
Electrical connection	Removable screw terminal block for inputs and outputs (pitch 5.08 mm)
Mounting support	Top hat type TH35-15 rail conforming to IEC 60715 Top hat type TH35-7.5 rail conforming to IEC 60715 Plate or panel with fixing kit
Height	90.50 mm
Depth	56.60 mm
Width	60.60 mm
Product weight	0.18 Kg

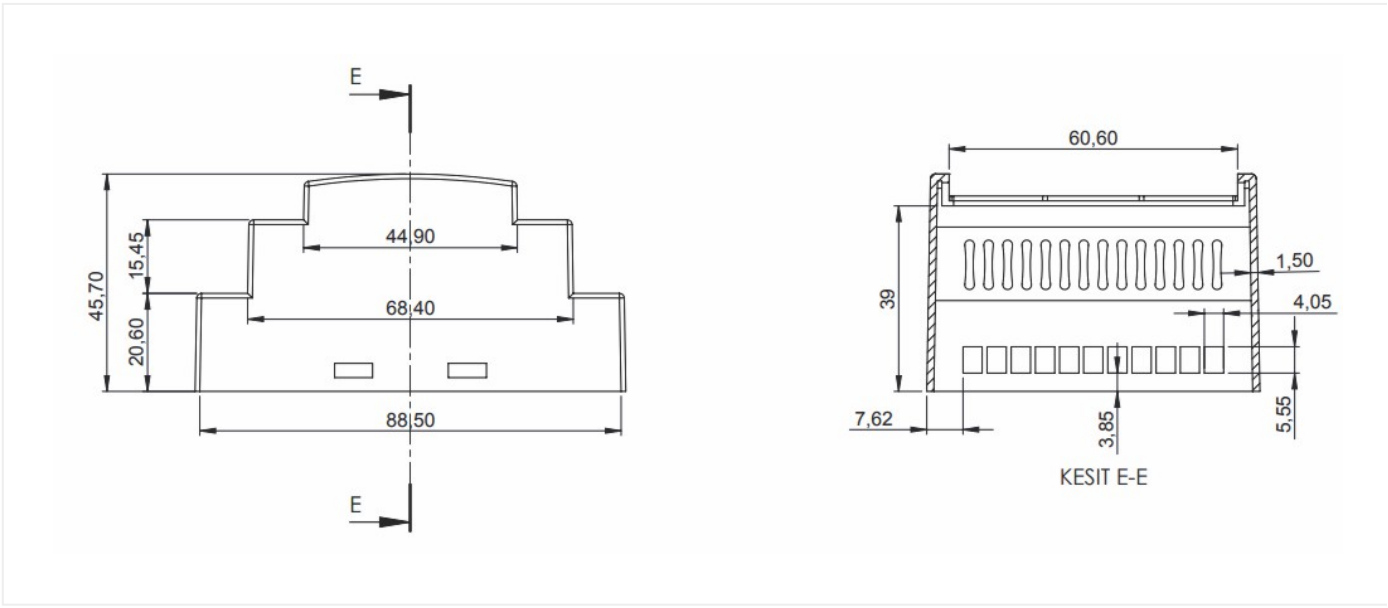
Complementary

Environment

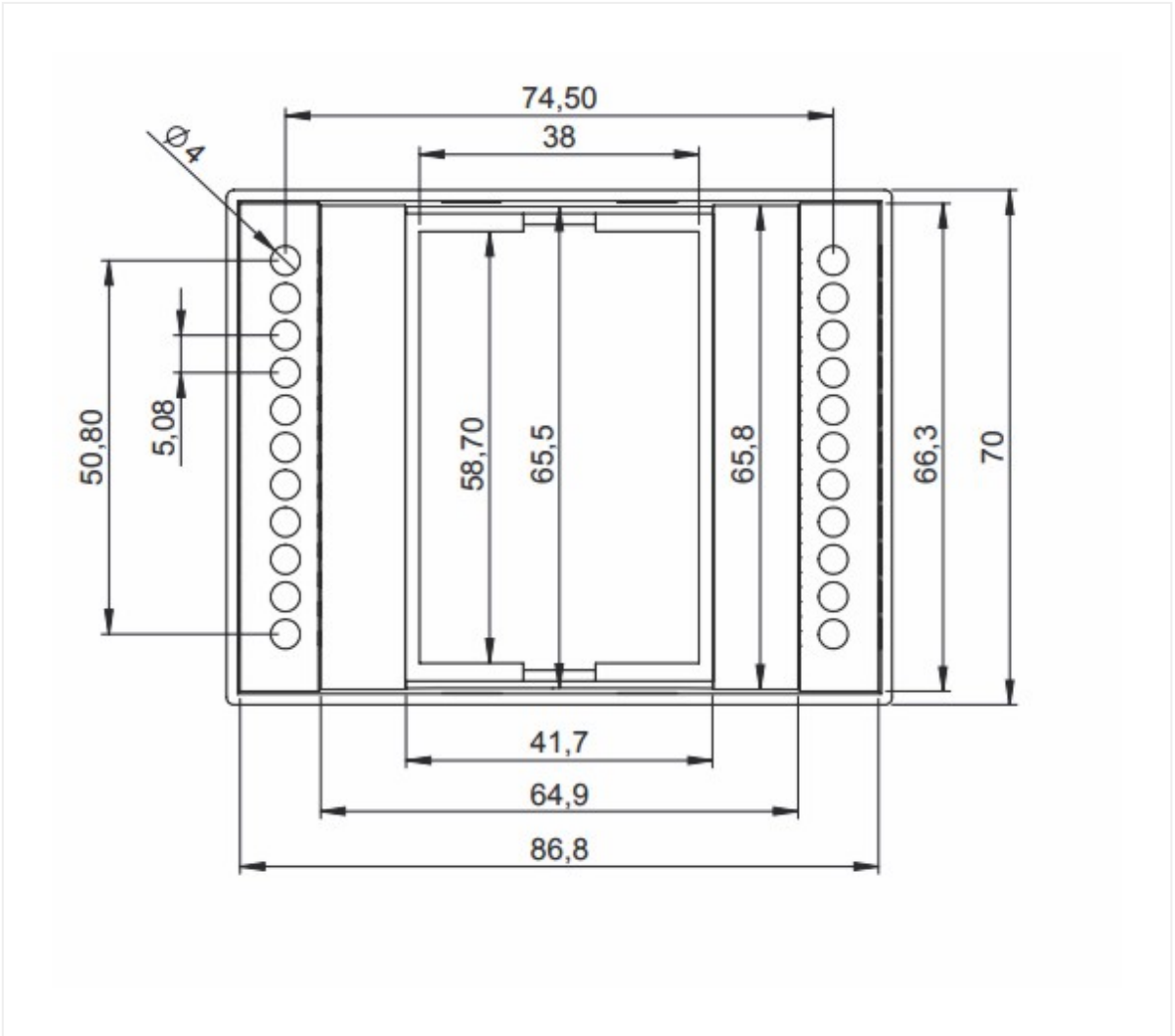
Resistance to electrostatic discharge	4kV on contact 8kV on air
Resistance to electro magnetic fields	10 V/m (80 MHz …… 1GHz) 3 V/m (1.4 MHz …… 2 GHz) 1 V/m (2 MHz …… 3 GHz)
Immunity to microbreaks	10 ms
Relative humidity	10….95% without condensation in operation
IP degree of protection	IP20
Operating altitude	0…2000m
Operating Temperature	–40°C to +125°C
Storage altitude	0…3000m
Shock resistance	15 gn for 11 ms

Environment

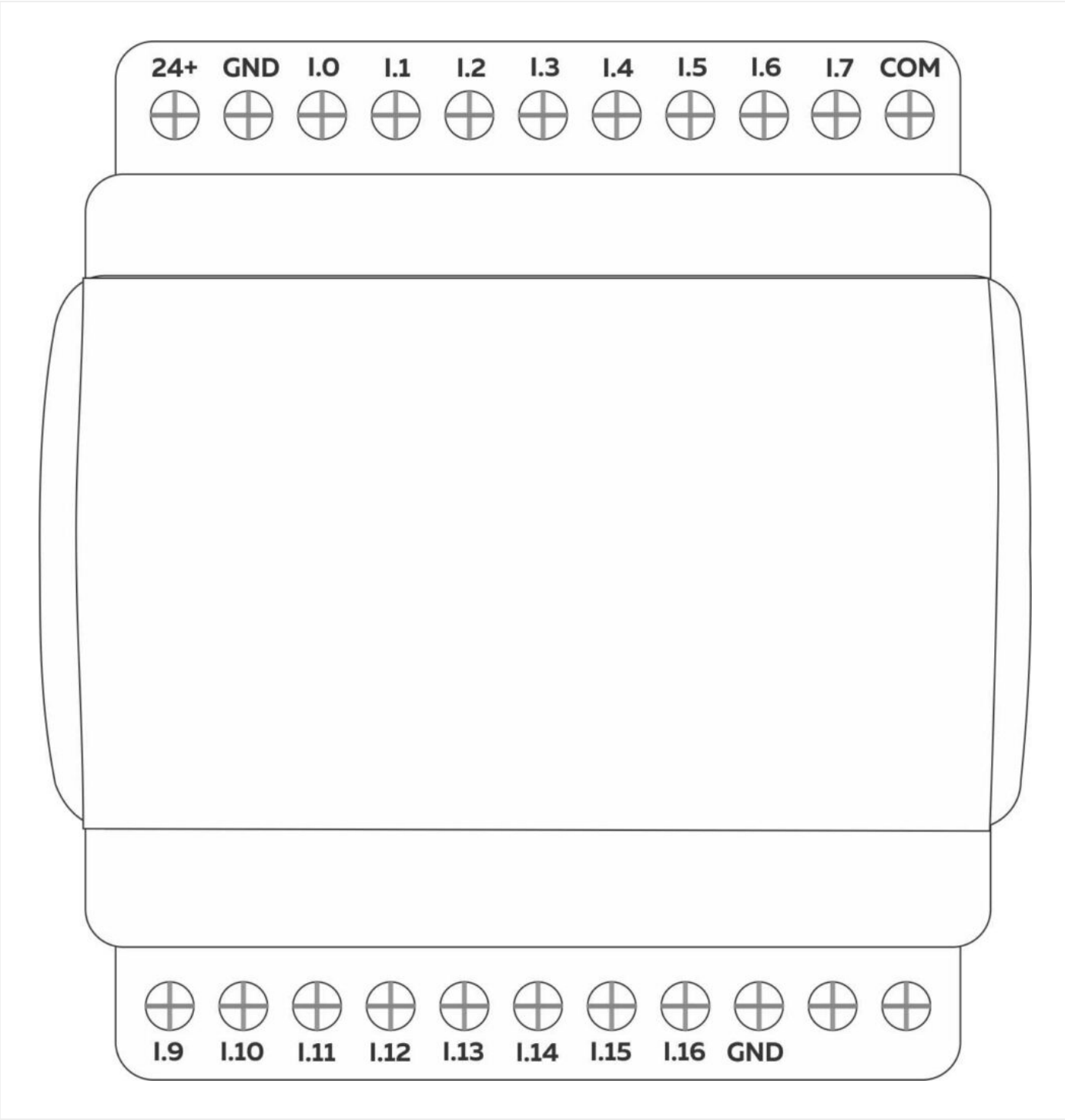
Dimensions



SE-EX



Terminal Layout



SE-EX-DI16

GPIO Allocation

MCP230008	**I/O**
GP0	I0 – DIGIAL INPUT 0
GP1	I1 – DIGIAL INPUT 1

MCP230008	I/O
GP2	I2 – DIGIAL INPUT 2
GP3	I3 – DIGIAL INPUT 3
GP4	I4 – DIGIAL INPUT 4
GP5	I5 – DIGIAL INPUT 5
GP6	I6 – DIGIAL INPUT 6
GP7	I7 – DIGIAL INPUT 7
GP8	I8 – DIGIAL INPUT 8
GP9	I9 – DIGIAL INPUT 9
GP10	I10 – DIGIAL INPUT 10
GP11	I11 – DIGIAL INPUT 11
GP12	I12 – DIGIAL INPUT 12
GP13	I13 – DIGIAL INPUT 13
GP14	I14 – DIGIAL INPUT 14
GP15	I15 – DIGIAL INPUT 15

MCP23008

I2C SDA	GPIO16
I2C SCL	GPIO17

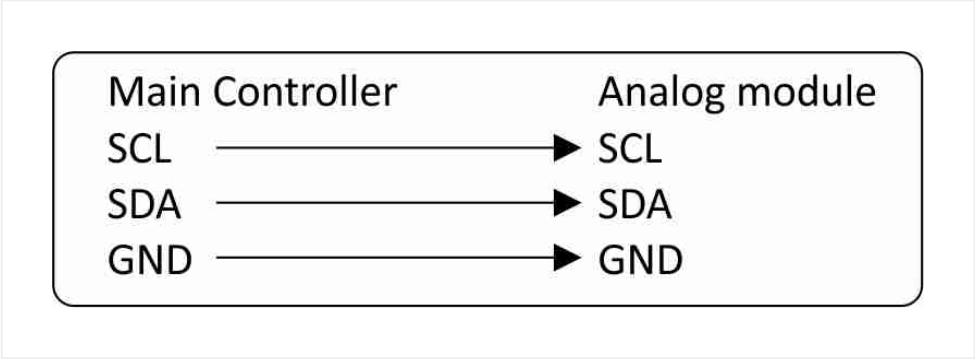
Expansion Port Connection

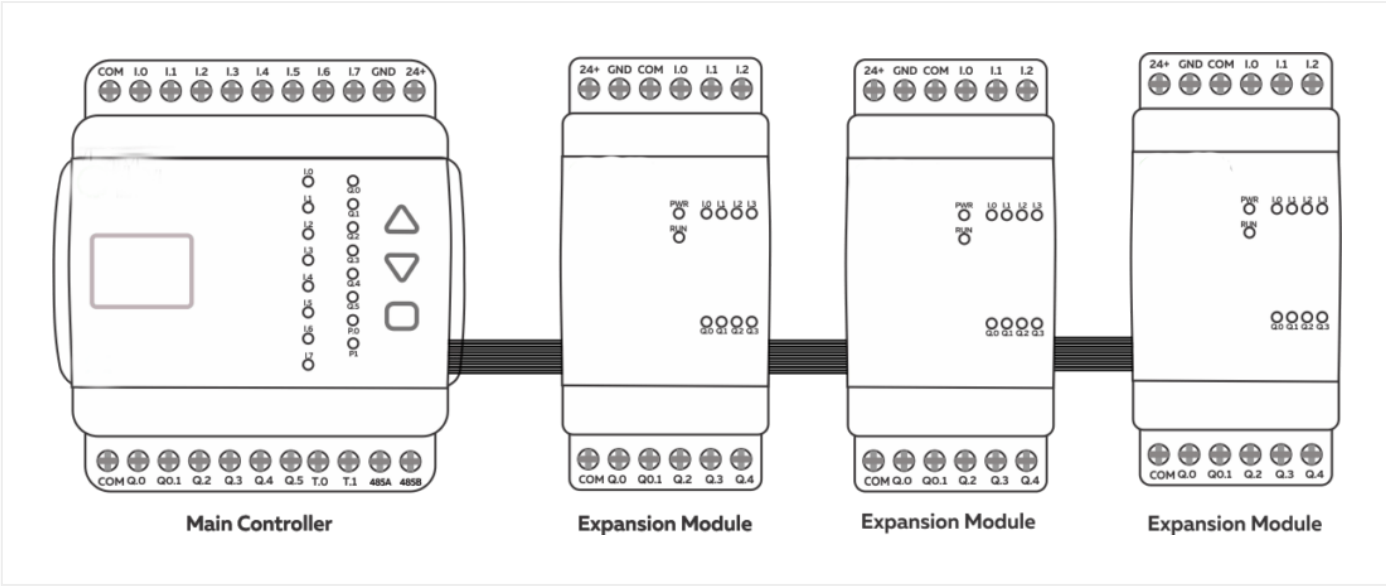
Expansion Port

The expansion port of the SENSOPER Smart Controllers can be utilized for external sensor connections where raw GPIO connections are required or they can be used to plug SENSOPER Expansion Modules

Browse SENSOPER Expansion (https://norvi.lk/norvi-expansion/) Product range

How to Connect SENSOPER Expansion Modules

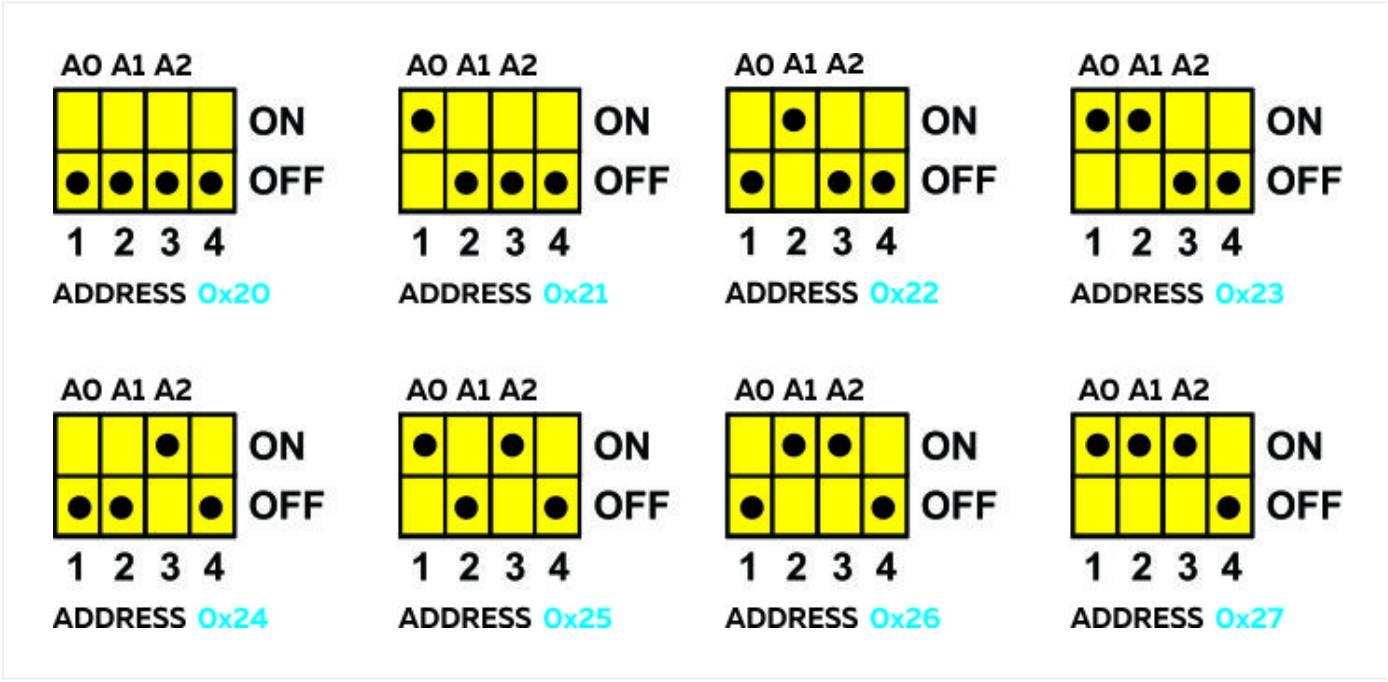




Expanding SENSOPER Controller

I2C Address Setting

I2C Address of the expansion module can be configured by switching DIP Switches in the bottom of the expansion module. The device can be configured in 8, I2C addresses using the first 3, DIP switches.



Updated on March 11, 2023
