NP4

- COMPACT PROGRAMMABLE CONTROLLER (NANOPAC)
- ON BOARD I/O
- EXPANSION CAPABILITIES

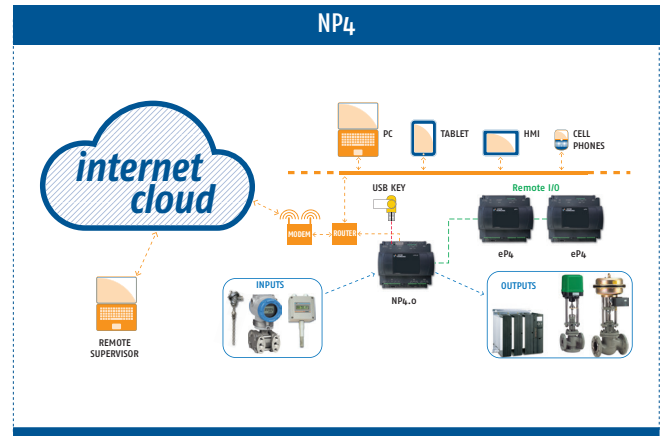## FEATURES

INPUTS	NP4
4 Universal Analogue	Configurable between: 0/1… 5 V, 0/2… 10 V, 0/4… 20 mA, TC (J, K, L, N, R, S, T), PT100 (2 wires), PT1000, NTC (103AT–2), Potentiometer, 5 V Ratiometric
	16 bit resolution
	Accuracy 0,1% of span (linear), 0,2% (temperature)
	Input Impedance >100 kΩ, <200 Ω (mA)
	Insulation 800 V between analogue channels and power supply, digital I/0s and serial comms ports (insulated version)
8/16 + 2 Digital	8 (16 I/0 mix) sink type IEC61131–2 type 3
	2 input sink type IEC61131–2 type 3 for counters and frequency (5 kHz max)
	Protection: reverse polarity and overvoltage
	Insulation 800 V between digital channels, power supply, analogue I/0s and serial comms ports (isolated version)

OUTPUTS	
0/2/4 Analogue	Configurable 0/1… 5 V, 0/2… 10 V, 0/4… 20 mA
	12 bit resolution
	Accuracy 0.1 % full scale
	Insulation 800 V between analogue outputs and power supply, analogue inputs, digital I/0s and serial comms ports (isolated version)
8/16 Digital	8 (16 I/0 mix) high–side output 0.7 A each
	Insulation 800 V between digitals and power supply, analogue I/0s and serial comms ports (isolated version)
4 Relay/SSR Drive	Relay 2 A, 240 Vac, or SSR Drive max 20 mA, 12V
	Protection: Overvoltage
	Insulation 2500V (Relay), 800V SSR Drive with respect power supply, analogue & digital I/0s and serial comms ports (isolated version)

SERIAL PORTS AND COMMUNICATION	
Ethernet	Ethernet port 10/100 MB
0/1/2 Serial	1 RS232/485 + 1 RS485 (optional/ insulated)
USB	Micro USB AB type (HOST)
Protocol	Modbus TCP Server, Modbus RTU (Master e Slave), ASCII

FUNCTIONAL	
Processor	ARM Cortex M7 32 bit, 216 MHz
Memory	16 MB Flash, 32 MB SDRAM, 128 kB MRAM
Programming	Standard languages IEC 61131–3 compliant: IL, ST, FBD, LD, SFC, CFC
Real Time Clock	Back–up battery on board (rechargeable)

GENERALS	
Power Supply	24 Vdc (–15… +25%)
Power consumption	12 W
Dimensions / Weight	105 x 110 x 60 mm (WxHxD) 6 DIN module / 512 g
Mounting	On Omega DIN A rail
Protection	IP 20
Operating/storage temperature	–20… 50 ºC (–4… 122 ºF) / –40… 70 ºC (–40… 158 ºF)
Operating Humidity	5… 95 RH% without condensation

CE

HOW TO ORDER

To compose the part number, pls. choose one of the option for each variable

NP4	CODE
DISPLAY	
Without display	–
Display LCD 128 x 64 dot (not available yet)	D
DIGITAL OUTPUTS	
Not provided	–
2 Relay DO + 2 SSR drive DO	M
4 Relay DO	R
4 SSR drive DO	S
ANALOGUE INPUTS	
Not provided	–
4 universal inputs	4
4 universal & ratiometric inputs	5
2 mV inputs for O2 probes	0
ANALOGUE OUTPUTS	
Not provided	–
2 ch. not isolated	2
2 isolated modules with 2 analogue ch. each	4
DIGITAL INPUTS	
Not available	– –
8DI + 8DO + 2 DI for counter and Frequency	88
16 Digitals (config. as IN or OUT) + 2 DI counter/Frequency	16
FIELDBUS	
Ethernet	E
COMMUNICATION PORTS	
Not available	– –
RS232/485	1S
RS232/485 isolated	1I
RS232/485 + RS485 isolated	2S
RS232/485 isolated + RS485 isolated	2I
RS485 isolated	4I
CASE COLOUR	
Grey	G
White	W

CONNECTIONS

NP4

DIMENSIONS

NP4

Rail mounting DIN 35 x 7.5 (EN 50022)

110

105

60

60

The dimensions are expressed in mm
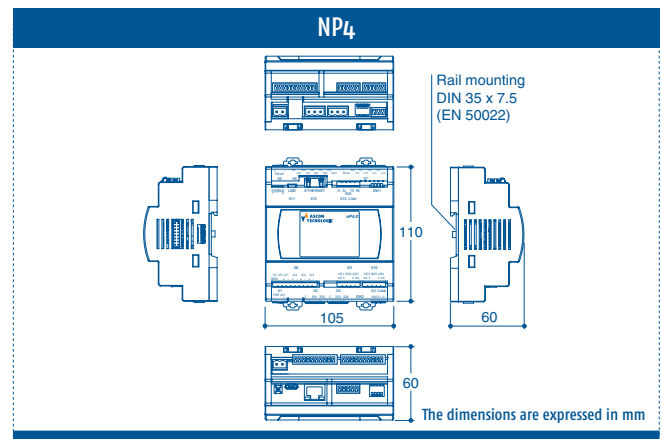
INDUSTRIAL CONTROLLERS

ADVANCED PROGRAMMER CONTROLLERS

DIN RAIL MOUNTING CONTROLLERS

THERMOSTATS ANALOGUE CONTROLLERS

SPECIAL CONTROLLERS AND "CUSTOM"

PAC SYSTEMS

PRE-PROGRAMMED SYSTEMS

PLC AND OPERATOR PANELS

TIMERS COUNTERS POWER LIMITERS

INDICATORS

I/O MODULES

SUPERVISION

COMBUSTION CONTROL

ACCESSORIES