The **NEXTuino family** is a range of industrial Programmable Logic Controllers based on Arduino-compatible cores, designed for industrial automation, building management and IoT applications.

The family covers from the compact **BASE** RP2040 board up to the high-density **CREST** DIN-rail PLC, with optional analog automation features (**FLEX**) and pin-header-less reduced variants (**CORE**).

BASE

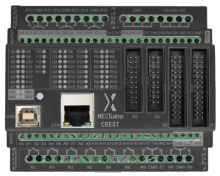
121.001.1x

RISE

100.000.x

PEAK

100.10x.xx



CREST

100.200.x

FAMILY COMPARATIVE TABLE

Product	Reference	Controllino equivalent	Supply	Dimensions (W×H×D mm)	Weight	Digital Inputs	Digital Outputs	Relay Outputs	Analog I/O	Communication
BASE	121.001.10 / .11	—	12–24 VDC	100×50×19.5	80 g	6× AI 24-bit + 4× ADI 12-bit	8× HB 3A PWM 16-bit	—	—	USB-C · ETH · RS-485 or CAN
RISE	100.000.00	MINI	12V or 24V	36×90×60	145 g	8 (4 a/d + 2 fix d + 2 fix a)	8	6	—	USB-B · pin header
RISE CORE	100.000.10	MINI Pure	12V or 24V	36×90×60	145 g	8 (4 a/d + 2 fix d + 2 fix a)	8	6	—	USB-B
PEAK	100.100.00	MAXI	12V or 24V	72×90×62	250 g	12 (10 a/d + 2 fix d)	12	10	—	USB-B · ETH · RS485 · pin
PEAK CORE	100.100.10	MAXI Pure	12V or 24V	72×90×62	250 g	12 (10 a/d + 2 fix d)	12	10	—	USB-B · ETH · RS485
PEAK FLEX	100.101.00	MAXI Automation	24 V	72×90×62	240 g	18 (12 a/d + 4 d + 2 fix d)	8	10	2× AI 0-10V, 2× AO 0-10V/0-20mA	USB-B · ETH · pin
PEAK FLEX CORE	100.101.10	MAXI Automation Pure	24 V	72×90×62	250 g	18 (12 a/d + 4 d + 2 fix d)	8	10	2× AI 0-10V, 2× AO 0-10V/0-20mA	USB-B · ETH
PEAK PLUS	100.102.00	MAXI Power	12V or 24V	72×90×62	270 g	12 (10 a/d + 2 fix d)	12	5	—	USB-B · ETH · RS485 · pin
PEAK PLUS FLEX	100.102.10	MAXI Power Automation	24 V	72×90×62	270 g	18 (12 a/d + 4 d + 2 fix d)	8	5	2× AI 0-10V, 2× AO 0-10V/0-20mA	USB-B · ETH · pin
CREST	100.200.00	MEGA	12V or 24V	107×90×62	370 g	21 (16 a/d + 5 fix d)	24	16	—	USB-B · ETH · RS485 · pin
CREST CORE	100.200.10	MEGA Pure	12V or 24V	107×90×62	370 g	21 (16 a/d + 5 fix d)	24	16	—	USB-B · ETH · RS485

Naming convention
CORE = no pin-header connector
FLEX = adds analog I/O (2× 0-10V inputs, 2× 0-10V or 0-20mA outputs)
PLUS = power-rated relay outputs
BASE available with RS-485 (.10) or CAN (.11) communication.

All NEXTuino products (except BASE, which is a compact RP2040 board) share the same DIN-rail housing footprint, industrial environmental and electrical characteristics.

STANDARDS & CERTIFICATIONS	
Industrial PLC standard	EN 61010-1 · EN 61010-2-201 · EN 61131-2
CE conformity	Yes (all family)
RoHS / REACH compliance	Yes (all family)
UL listing	In progress

ENVIRONMENTAL CONDITIONS	
Operating ambient temperature	0°C – 55°C (BASE: -10°C – 55°C)
Relative humidity (non-condensing)	80% up to 31°C, decreasing linearly to 50% at 55°C
Transport & storage temperature	-20°C – +70°C, 10–90% non-condensing
Pollution Degree	PD2
Operating altitude	Up to 2000 m AMSL (storage up to 3000 m)
Vibration (5–9 Hz)	1,75 mm amplitude (sinus) · 3,5 mm amplitude (random)
Vibration (9–150 Hz)	0,5 g acceleration (sinus) · 1,0 g acceleration (random)
Shock response	15 g, 11 ms half-sinus, all 3 axes

PROTECTION	
ESD HBM Class 0	Contact discharge ±4 kV · Air discharge ±8 kV
Supply input over-current protection	Internal fuse 8A (RISE) / 20A (PEAK) / 30A (CREST)
Digital outputs	Overload, short-circuit, ESD
Signal inputs	Overvoltage, ESD
Pin header connector	ESD-protected (where present)

TERMINAL CAPACITIES (common to DIN-rail variants)	
Relay Output / Power Input terminals	2,5 mm² (24–12 AWG) · strip 6–7 mm · max torque 0,5 Nm
Digital / Analog I/O terminals	1,5 mm² (30–16 AWG) · strip 5–6 mm · max torque 0,2 Nm
Mounting	DIN top-hat rail EN50022, 35 mm (BASE: screw / rail adapter)
Housing	Industrial plastic enclosure (BASE: aluminium)