

Life Is On

Eurotherm
by Schneider Electric

Eurotherm Product Selection Guide

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Our technologies ensure that

Life Is On

everywhere, for **everyone,** and at **every moment**

At Eurotherm we passionately support our customers with specialist knowledge and experience to achieve process excellence through machine automation efficiency and regulatory compliance.

Our vision is to be the preferred supplier of machine automation products, applications, power and process control systems and services for customers in specialist industries, while our mission is to solve our customers' problems with pioneering products, bespoke systems and industry expertise.

Our wide range of products is rich in features and designed for easy operation and reduced engineering time. They contain market-leading control algorithms, recording and data management strategies which add value to industrial processes, improving quality, reducing waste and ensuring data is kept safe for as long as it is needed.

Decades of experience in providing world-class process control, recording and automation are supported by a continuous research and development programme to ensure our solutions meet the modern challenges faced across a wide range of industries. Our customers are fully supported by a global sales and service network of highly qualified engineering personnel who understand the applications and industries they serve.

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PID Controllers, Indicators and Alarm Units

Single Loop	Discrete Panel Mount Controllers												
													
FEATURES	**2132**	**3216**	**3208**	**32h8**	**3204**	**2216e**	**2208e**	**2204e**	**2416**	**2408**	**2404**	**3508**	**3504**
Panel size (DIN)	1/32	1/16	1/8	1/8	1/4	1/16 DIN rail	1/8	1/4	1/16	1/8	1/4	1/8	1/4
IP Rating	IP65	IP65, NEMA12				IP65			IP65			IP65, NEMA12	
Display Type	1 x 4 dig LED	Main: 4 digits Lower: 5 character starburst (3216/08/04) 9 character starburst (32h8)				2 x 4 dig LED			2 x 4 dig LED			Main PV: 5 digit plus 4 line alphanumeric	
Supply Voltage	24V dc/ac 85-264V ac	24V dc/ac 85-264V ac				85-264V ac			24V dc/ac 85-264V ac			24V dc/ac, 85-264V ac	
Safety Approvals	X	EN14597 TR				X			X			X	
Input Type	TC, RTD, mV, mA, V	TC, RTD,mV, mA, CT				TC, RTD, mV, mA, Volts			TC, RTD, mV, mA, Volts			TC, RTD, mV, mA, Volts	
PV Accuracy	<0.25%	<0.25%				<0.25%			<0.2%			<0.1%	
Control Types	On/Off. PID	On/Off. PID, VP				On/Off. PID, VP			On/Off. PID, VP			On/Off, PID, VP	
Special Features	X	Recipes, Text messaging				X			Dual input control			User wiring, Master comms	
SP Programmer	X	4 Ramp + 4 Dwell				X			20 x 16 Segments			50 Programmes, 500 Segments max	
Analogue IP/OP	In: 1 Out: 0	In: 2 Out: 3				In: 1 Out: 1			In: 2 Out: 3			In: 5 Out: 6	
Digital IP/OP	In: 1 Out: 2	In: 3 Out: 4				In: 3 Out: 4			In: 11 Out: 11			In: 40 Out: 41	
Digital Comms	X	Modbus				Modbus, DeviceNet			Modbus, DeviceNet, Profibus			Modbus, DeviceNet, Profibus, Ethernet	
Maths Equation	X	X				X			X			24 Calculations	
Combinational Logic	X	X				X			X			24 Operations	
Timers/Counters/Totals	X	X				X			X			4 / 2 / 2	
Real Time Clock	X	X				X			X			Day and Time	
Alarm Types	Hi, Lo, Dev, Sensor break	Hi, Lo, Dev, Heater fail Sensor break, Event				Hi, Lo, Dev, Heater fail Sensor break, Event			Hi, Lo, Dev, Heater fail Sensor break, Event			Hi, Lo, Dev, Heater fail Sensor break, Event	
PC Configuration	List based	Wizard				List based			List based			Graphical Wiring	

PID Controllers, Indicators and Alarm Units

Multi Loop	Recorder/Controller	Discrete Panel Mount Controllers				Modular DIN Mount Controller
						
FEATURES	**nanodac™**	**3508**	**3504**	**2604**	**2704**	**Mini8™**
Panel size (DIN)	1/4	1/8	1/4	1/4		DIN rail
IP Rating	IP65, NEMA12	IP65, NEMA12		IP65		IP20
Display Type	3.5” TFT colour, 320 x 240 pixels	Main PV: 5 digit plus 4 line alphanumeric		2 x 5 dig LED + 2 line text	Dot Matrix	Remote
Supply Voltage	24V dc/ac 85-264V ac	24V dc/ac 85-264V ac		24V dc/ac, 85-264V ac		24V dc
Input Type	TC, RTD,mV, mA	TC, RTD, mV, mA, Volts		TC, RTD, mV, mA, Volts		TC, mV, RTD, mA, CT
PV Accuracy	<0.1%	<0.1%		<0.1%		<0.1%
Control Types	On/Off, PID, VP	On/Off, PID, VP		On/Off, PID, VP		On/Off, PID
Control Loops	2	2		3		16
Control Algorithms	Single, Cascade, User wired	Single, Override, User wired		Single, Cascade, Override, User wired		Single, User wired
Special Features	Relative Humidity, Washdown Faceplate, User Wires, Carbon Potential	Carbon Potential, Humidity, Melt Pressure, User wiring, Master comms		Carbon Potential, Humidity, Melt Pressure, User wiring, Master comms	Carbon Potential, Humidity, Melt Pressure, Vacuum	Humidity, Load diagnostics, User wiring
SP Programmer	100 Programmes, 25 Segments Local/USB/FP	50 Programmes, 500 Segments max		50 Programmes, 500 Segments max	60 Programmes, 600 Segments max	8 Programmes, 16 Segments each
Analogue IP/OP	In: 8 Out: 3	In: 5 Out: 6		In: 8 Out: 8		In: 32 Out: 8
Digital IP/OP	In: 4 Out: 5	In: 40 Out: 41		In: 44 Out: 43		In: 34 Out: 32
Digital Comms	Modbus TCP/IP Master/Slave EtherNet/IP Client/Server	Modbus, DeviceNet, Profibus, Ethernet		Modbus, DeviceNet, Profibus	Modbus, DeviceNet, Profibus, Ethernet	Modbus, DeviceNet, Profibus, Modbus TCP/IP, EtherCAT, EtherNet/IP Server
Maths Equation	17 Calculations	24 Calculations		24 Calculations	32 Calculations	24 Calculations
Combinational Logic	24 Operations	24 Operations		32 Operations		24 Operations
Timers/Counters/Totals	4 / 15 / 15	4 / 2 / 2		4 / 0 / 4		4 / 2 / 2
Real Time Clock	Day and Time	Day and Time		Day and Time		Day and Time
Alarm Types	Hi, Lo, Dev	Hi, Lo, Dev, Heater fail Sensor break, Event		Hi, Lo, Dev, Heater fail, Event		Hi, Lo, Dev, Heater fail Sensor break, Event
PC Configuration	Graphical Wiring	Graphical Wiring		Graphical Wiring		Graphical Wiring

PID Controllers, Indicators and Alarm Units

Indicators and Alarm Units	Discrete Panel Mount				
					
FEATURES	**2132i**	**3216i**	**32h8i**	**3204i**	**2408i**
Panel size (DIN)	1/32	1/16	1/8	1/4	1/8
IP Rating	IP65	-P65, NEMA12	IP65, NEMA12	IP65, NEMA12	IP65
Display Type	4 Digit LED	4 Digit LCD plus 5 character alphanumeric	5 Digit LCD plus 9 character alphanumeric	4 Digit LCD plus 5 character alphanumer	Large 5 Digit LED
Supply Voltage	24V dc/ac 85-264V ac	24V dc/ac 85-264V ac	24V dc/ac 85-264V ac	24V dc/ac 85-264V ac	24V dc/ac 85-264V ac
Safety Approvals	none	EN14597/TW, FM	EN14597/TW, FM	EN14597/TW, FM	✗
Input Type	TC, RTD, mV, mA, Custom	TC, RTD, mV, mA, Custom	TC, RTD, mV, mA, Volts, Custom, Strain gauge	TC, RTD, mV, mA, Custom	TC, RTD, mV, mA, Volts, Custom
User Calibration	2 point	5 point	5 point, Shunt, Load cell, Auto tare	5 point	15 point, Shunt, Load cell, Comparison, Auto tare
PV Input Selection	✗	✗	✗	✗	Hi, Lo, Select, Switchover, Derived
No of Alarms	3	4	4	4	8
Alarm Types	Hi, Lo, Dev, Sensor break	Hi, Lo, Dev, Sensor break, Rate of change	Hi, Lo, Dev, Sensor break, Rate of change	Hi, Lo, Dev, Sensor break, Rate of change	Hi, Lo, Dev, Sensor break, Rate of change, Event
No of Relay Outputs	2	3	2	2	7
Digital IP/Logic OP	1/2	2/0	2/0	2/0	2 plus possible further 9/9
Retransmission	✗	Non isolated	Isolated	Isolated	Isolated
Custom Messages	✗	128 Characters	128 Characters	128 Characters	✗
Slave Comms	✗	Modbus RTU	Modbus R	Modbus RTU	Modbus RTU, DeviceNet, Profibus DP
Melt Pressure	✗	✗	✓	✗	✓
Transducer PSU	✗	✗	10V dc	✗	5/10V dc
Transmitter PSU	✗	✗	24V dc	24V dc	24V dc
PC Configuration	List based	Graphical Wiring	Graphical Wiring	Graphical Wiring	List based

PID Controllers, Indicators and Alarm Units

Plastics process control	Melt Pressure Controller	Melt Pressure Indicator
		
FEATURES	**P304C**	**P304I**
Panel size (DIN)	1/4	1/4
Display Type	2 x 5 digit LED	2 x 5 digit LED
Supply Voltage	24V dc/ac 85-264V ac	24V dc/ac 85-264V ac
Input Type	2 x strain gauge, Linear 0-10V, 0-20mA	2 x strain gauge, Thermocouple, PT100, PT500, Linear 0-10V, 0-20mA
PV Accuracy	<0.1%	<0.1%
Control Types	Melt pressure, Differential melt pressure	Melt pressure indication
Control Loops	1	X
Control Algorithms	PID	X
Special Features	50mS update	50mS update
Shunt Cal	✓	✓
Transducer Power Supply	✓	✓
Analogue IP/OP	2 (control, retrans)	2 (retrans)
Digital IP/OP	In: 4 Out: 3	Out: 3
Digital Comms	Modbus RTU	Modbus RTU
Alarm Types	High, Low, Deviation, Differential pressure	High, Low, Deviation, Differential pressure
PC Configuration	Eurotherm iTools	Eurotherm iTools

USB Configuration Lead



Configuration and back up for 3000 Series and nanodac

Software

Configuration Tools - Eurotherm iTools

Recorders and Data Acquisition

Paperless/Graphic	Paperless Graphic Recorders						Portable TUS Recorders		Recorder/ Controller	Scalable Recorder
										
FEATURES	**6100A**	**6180A**	**6100XIO**	**6180XIO**	**6180AeroDAQ**	**6100E**	**6100A**	**6180A**	**nanodac™**	**versadac™**
Inputs	18	48	X	X	48	6	15	30	4	128 and 256 Dig
Graphic Display	5.5”	12.1”	5.5”	12.1”	12.1”	5.5”	5.5”	12.1”	3.5” TFT 320 x 240 pixels	X
Protection	IP66		IP66		IP66	IP66	IP66	IP66	IP65, NEMA12	IP21
Relay Outputs	✓		X		✓	✓	X	X	✓	✓
Annotation	✓		✓		✓	✓	✓	✓	✓	✓
Contact Inputs	✓		X		✓	X	X	X	✓	✓
Communications	Modbus TCP/RTU Master & Slave, EtherNet/IP Server					Modbus TCP Slave	Modbus TCP/RTU Master & Slave, EtherNet/IP Server		Modbus TCP/RTU Master & Slave, EtherNet/IP Server/Client	
Mathematics	✓		✓		✓	✓	✓	✓	✓	✓
Counters	✓		✓		✓	✓	✓	✓	✓	✓
Timers	✓		✓		✓	✓	✓	✓	✓	✓
Totalisers	✓		✓		✓	✓	✓	✓	✓	✓
PC Configuration	✓		✓		✓	✓	✓	✓	✓	✓
Ethernet/FTP	✓		✓		✓	✓	✓	✓	✓	✓
Auditor Features	✓		✓		✓	X	✓	✓	✓	✓
Batch	✓		✓		✓	X	✓	✓	✓	✓
Custom Screens	✓		✓		✓	X	✓	✓	X	X
Remote Viewing	✓		✓		✓	✓	✓	✓	✓	✓
Recording Speed	8Hz		8Hz		8Hz	1Hz	8Hz	8Hz	8Hz	8Hz
Trend Speed	8Hz		8Hz		8Hz	1Hz	8Hz	8Hz	8Hz	8Hz
Network Addressing	DHCP, Boot P, Fixed IP						DHCP, Boot P, Fixed IP		DHCP, Fixed IP	DHCP, Fixed IP
USB	3		1		3	1	3	3	1	1
Reports	10		10		10	X	10	10	X	1
Groups	12		12		12	1	12	12	1	1
Review of History (screen)	✓		✓		✓	✓	✓	✓	✓	X
AMS2750E	✓		✓		✓	X	✓	✓	✓	✓

Recorders and Data Management

Paper	Strip Chart				Circular
					
FEATURES	**4102C**	**4102M**	**4103C**	**4103M**	**392**
Inputs	4	6	4	6	4
Chart Width	100mm		100mm		10” circular
Protection	IP54		IP54		NEMA 3
Relay Outputs	✓		✓		✓
Annotation	✓		✓		✗
Contact Inputs	✗		✓		✓
Modbus (Serial)	✗		Slave		✗
Removable/Data Storage	✗		✓		✗
Mathematics	✗		✓		✓
Counters	✗		✓		✗
Timers	✗		✓		✓
Totalisers	✗		✓		✓
Controllers	✗		✗		✓
PC Configuration	✓		✓		✗

Software	Visualisation Packages	Data Reporting & Manipulation				Applications
	Bridge	**Review**	**Review QuickChart**	**Dream Report**	**TUS**	**Security Manager**

Solid State Relays (SSRs) and Power Controllers

Solid State Relays (SSRs) and Simple Thyristor Controller	Solid State Relays	DIN Rail Solid State Relays		Solid State Slim Relays		Simple Thyristor Controller
						
FEATURES	**ZELIO SSP1**	**ZELIO SSM1**	**ZELIO SSM3**	**ZELIO SSLM Input Module**	**ZELIO SSLM Output Module**	**ESwitch**
Heater Type Constant Resistance	✓	✓	✓	✓	✓	✓
SWIR (Short wave infrared)	✗	✗	✗	✗	✗	✓
AC Output	✓	✓	✓	✓	✓	✓
DC Output	✓	✗	✗	✗	✗	✗
Maximum Current (Amps)	125A	55A	25A	100mA	3A	50A
Maximum Voltage (Volts)	660V	660V	600V	28V	60V dc/250V ac	500V
Integrated Heatsink	✗	✓	✓	✓	✓	✓
Controlled Phases	1	1	3	1	1	1
dc Logic Input	✓	✓	✓	✓	✓	✓
ac Logic Input	✓	✓	✓	✗	✓	✓
Firing Mode Zero Crossing	✓	✓	✓	✓	✓	✓
Built-in Fuse	✗	✗	✗	✗	✓	✗
Partial Load Failure	✗	✗	✗	✗	✗	✓
Alarms	✗	✗	✗	✗	✗	✓
Compliance	CE UL CSA	CE UL CSA	CE UL CSA	CE UL CSA	CE UL CSA	CE UL CSA
Compliance to : EN60947-4-3	✗	✗	✗	✗	✗	✓

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Power Controllers

Power Control	Single Phase			Three Phase		Multi Channel
						
FEATURES	**Efit**	**EPack**	**7100A**	**2 leg Control 7200A**	**3 leg Control 7300A**	**EPower Controller**
Heater Type **Constant Resistance**	✓	✓	✓	✓	✓	✓
SWIR (Short wave infrared)	✓	✓	✓	✓	✓	✓
Variable Resistance	✓	✓	✓	X	✓	✓
Inductive/Transformer Coupled	✓	✓	✓	X	✓	✓
True Power Control	X	✓	X	X	✓	✓
Maximum Voltage (Volts)	500V	500V	500V	500V	500V	690V
Maximum Current (Amps)	50A	125A	250A	200A	160A	Compact 50-630A Decentralised 800-4000A (MC)
Controlled Phases	1	1	1	2	3	1-4 single phase 1 x 2 leg control 2 x 2 leg control 1 x 3 phase
Input **Analogue**	✓	✓	✓	✓	✓	✓
Logic	✓	✓	✓	✓	✓	✓
Firing Mode **Phase Angle**	✓	✓	✓	X	✓	✓
Burst Firing	✓	✓	✓	✓	✓	✓
PLF and/or PLU	X	✓	✓	✓	✓	✓
Current Limit	✓	✓	✓	X	✓	✓
Diagnostics	X	✓	✓	✓	✓	✓
Alarms	X	✓	✓	✓	✓	✓
Digital Communications	X	EtherNet/IP, Modbus TCP, Profinet	X	X	Modbus	Profibus, EtherNet/IP, CC-Link, DeviceNet, Modbus, Modbus TCP, ProfiNet

Software for EPack and EPower Controller
Configuration Tools - Eurotherm iTools iTools

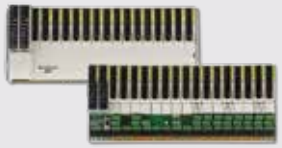
Drives and Soft Starters (check region for availability)

For full specifications see: eurotherm.co.uk/acdrives

AC Drives and Soft Starters	Variable Speed Drive
	   
Features	Single and three phase variable speed drives and soft starters
Types	Low Voltage AC Process Drives, Machine Drives, Building Drives, General Purpose AC Drives, Soft Starters, MVAC Process Drive, Machine Drives
Ranges	Altivar, Altivar process, Altivar Machine, Altivar Plus, Altivar Plus-LH, Altivar AFE, Altivar Lift, Altistart
Control Modes	Voltage/frequency), Flux vector control with or without sensor, Kn2 quadratic ratio, Energy saving ratio, ENA system, Vector control with or without speed feedback, constant torque, variable standard torque, optimized torque mode, PM (permanent magnet) motor
Communications	Modbus RTU, Modbus TCP, Modbus serial link, CANopen, DeviceNet, PROFIBUS DP, ProfiNet, Fipio, METASYS N2, APOGEE FLN, BACnet, LonWorks, Modbus/Uni-Telway, EtherNet/IP (RSTP), Interbus, CC-Link, METASYS N2, APOGEE FLN, EtherCAT, EtherNet/IP, POWERLINK
Software	SoMove, SoMachine, SoMove Mobile, Simple Loader, Multi-Loader, PCSoft for ATV 212.

DC Drives			
			
FEATURES	**ER-340/-680/-1200**	**ER-3200i/3600XRi**	**ER-PL/ER-PLX**
Power Rating	0.55-1.8kW (at 180V armature voltage)	2.2-11kW (at 320V armature voltage)	15-1000kW (at 460V armature voltage)
Supply Voltage	110-240V, 30-60V	110/240, 240/415V	100-480V, 100-690V
Phases	1-Phase	1-Phase	3-Phase
Control Mode	1- and 4-Quadrant	1- and 4-Quadrant	1- and 4-Quadrant
Communication	X	X	Profibus DP, DeviceNet, CANopen, Modbus RTU
Armature Current	3.4-12.2A	4-48A	36-2250A
Configuration Software	X	X	ER-PL Pilot and SAVVY

Machine and Process Automation Controllers

Programmable Automation Controllers	Visual Supervisor		PAC	
				
FEATURES	**Eycon™ 10**	**Eycon™ 20**	**T2750**	**T2550**
Display Type	5.5" QVGA	12.1" XGA	Remote	
IP Rating	IP65		IP20	
Input Type	Remote		mV, V, mA, T/C, RTD, Potentiometer	
Analogue IP/OP	Remote		In: 128 Out: 32	In: 64 Out: 32
Digital IP/OP	Remote		In/Out: 256	In/Out: 128
SP Programmer	8 Channels, 32 Segments each		8 Channels, 32 Segments each	
Batch	✓		✗	
Recipe	✓		✓	
Auditor Features	✓		✗	
Control	✓		✓	
Data Logging	✓		✓	
Ethernet (ELIN)	10/100Mbps		10/100Mbps	
Modbus (Serial & TCP)	Master/Slave		Master/Slave	
Profibus	Master		Master	Slave
Network Addressing	DHCP, Boot P, Link Local, Fixed		DHCP, Boot P, Link Local, Fixed	

PAC Software	
Configuration Tools	Project Developer LINTools Project Studio
Network Support & I/O Drivers	OPC-DA Server
Visualisation Packages	Process Viewer Operations Server Operations Viewer Wonderware® PAC
Data Reporting & Manipulation	Dream Report™ Software Information Manager Wonderware ActiveFactory™
Applications	Security Manager Control Modules Application Modules

Programmable Logic Controllers	Compact PLC	Modular PLC
		
FEATURES	**E+PLC^{100}**	**E+PLC^{400}**
Autotuning PID	✓	✓
Setpoint Programmer	✓	✓
Secure Recording	✓	✓
Archiving Strategy	✓	✓
Batch Management	✓	✓
Programming Platform	CODESYS (open)	CODESYS (open)
Programming Languages	IEC61131-3 compliant CFC, FBD, IL, LD, SFC, ST	IEC61131-3 compliant CFC, FBD, IL, LD, SFC, ST
Product I/O Dependant on build variant	AI(4), AO(3), DI(2), DO(2), RLY(3)	Modules: A18*, AO2, DI6, DI16, DO16, RLY8, ZI
I/O Expansion Method	Modbus	Modbus
Communications Protocols	FTP, Modbus TCP/IP (Master/Slave) OPC-DA via PC based software	FTP, Modbus TCP/IP (Master/Slave) Modbus Serial RTU (Master Slave),EtherCAT* OPC-DA via PC based software
Suitable for AMS2750E Process	✓	✓
Recording Duration (approx.) Based on 4 chs at intervals at: 1s 10s 20s 60s	12.97 days 129.7 days 259.45 days 2.13 years	50.5 days 1.28 years 2.77 years 8.3 years
Panel HMI (Protocol)	**Built in**	**E+HMI^{150} (OPC-DA)**
Web Visualization	✓	✓
Mounting	**Panel**	**DIN**

Signal Conditioners

I/O Signal Conditioners	Signal Conversion and Isolation						Eclipse Series
							
FEATURES	**Ultra SlimPak II High Accuracy & Ethernet ready**	**UltraSlimPak Basic, Low Cost**	**Action I/Q (AC/DC Powered)**	**Action I/Q (Loop Powered)**	**OmniSLIM**	**TransPak**	**AC Transducers**
Input Types	DC/Current, RTD, Thermocouple, Potentiometer, Strain Gauge, AC Volts/Current, Frequency	DC/Current, RTD, Thermocouple, Potentiometer, Strain Gauge, AC Volts/Current, Frequency	DC/Current, RTD, Thermocouple, Potentiometer, Strain Gauge, AC Volts/Current, Frequency	DC/Current, RTD, Thermocouple	DC/Current, RTD, Thermocouple	DC/Current, RTD, Thermocouple, Potentiometer, Frequency	-AC Power, AC Current, AC Voltage, AC Frequency, Phase Angle, Potentiometer/ Tap Position
Output Types	0-10V dc, 0-20mA dc, 4-20mA dc or 2 SPDT relays	0-5V dc, 0-10V dc, 0-1mA dc, 0-20mA dc, 4-20mA dc or 2 SPDT relays	-5 to +5V dc, -10 to +10V dc, 0-1mA dc, 0-20mA dc, 4-20mA dc or Frequency, or 2 SPDT relay(s)	4-20mA dc 0-20mA dc	0-20mA 4-20mA dc 0.5V dc*	1-20mA dc 4-20mA dc 10-50mA dc	0-1mA, 0-10mA, 0-20mA, 4-20mA, 0-10V plus others
Isolation	1800VDC Input/Output Power	1800VDC Input/Output/ Power	1800VDC Input/Output/ Power	1800VDC Input/Output/ Power & channel/channel	2500V Input/Output and channel/channel	1800 VDC 600 VDC Varies with product	2kV to IEC414
Power	9-30V dc via Terminals or jumpers	9-30V dc G448 18-30V (For DC Modules)	85-265V ac Various power Product dependant 9-30V dc, 18-30V dc (Q448) 10.8-26.4V dc (Q404)	N/A	Loop or 16.8 to 31.2V dc	Varies by Model	Varies by Model
Mounting	High density DIN rail	High density DIN rail	IQRL power bus or DIN rail both AC DC	DIN rail	DIN rail	Field mount housing or head or DIN rail	DIN rail
Wiring	Removable terminals	Fixed terminals	Removable terminals	Removable terminals	Fixed terminals	Fixed terminals	Fixed terminals
Special Features	Smart power, Ethernet communications	ASIC reliability	2 ch versions, Signal splitters, Math functions, Field configurable I/P type versions	Multi channel versions	Splitter, Isolation Linearisation	Optional display, HART, 2 I/P channels with math	Stand alone 4kV isolation (option)
Calibration via	TouchCal	Potentiometer, G478 TouchCal	TouchCal	Potentiometer	Lifetime cal	Potentiometer	X

Signal Conditioners...continued

I/O Signal Conditioners	Signal Conversion and Isolation	
		
FEATURES	**VisiPak**	**Action Pak AP**
Input Types	DC/Current, RTD, Thermocouple, Potentiometer, Strain Gauge, Frequency	DC/Current, RTD, Thermocouple, Potentiometer, Strain Gauge, AC Volts/ Current, Frequency
Output Types	2A, 264VAC Resistive Relays, Loop-Powered LCD Indicator	-5+5Vdc, -10+10Vdc, 0-20mAdc, 4-20mAdc, 2 SPDT relays
Isolation	500Vdc Input/Output/Power	1000-1500Vdc Input/Output/Power
Power	120-240Vac via Terminals, 85-265Vac	120-240Vac via Terminals, 9-30Vdc (Optional)
Mounting	Front Panel/Enclosure	Plug-in 8-Pin or 11-Pin Base Socket, High density DIN rail
Wiring	Fixed terminals	Fixed terminals
Special Features	Loop-Power, Provides a Digital Display of Rate or Totalized Count from a Frequency /Pulse input	Frequency divider, DC to Frequency conversion
Calibration via	Potentiometer	Potentiometer

Ancillary Equipment

Probes and Communication Devices	Probes		Comms Convertors
			
FEATURES	**In-Situ Carbon Probe – AP1**	**ACP Carbon Probe**	**Universal Isolated Interface Converter – KD485**
Output	1.00-2.00V dc	0 to 1250mV dc	X
Readout	% carbon probe into 8MΩ	0.01 to 1.6 % Carbon % oxygen *	X
Power Supply	X	X	+7 - +35V dc
Power Consumption	X	X	X
Accuracy	±0.05 weight % carbon in normal operating range	+/-0.05 weight % carbon in normal operating range	X
Response Time	Less than 1.0 second	Less than 1.0 second	X
Thermocouple	Type K, R & S	Type K, N, R, S	X
Isolation	X	X	2000V ac
Ports	X	X	2 Asynchronous ports, TX & RX signals only
Port Parameters	X	X	-STD: 0-115200 baud, all character formats -ADE/PROG: 30-115200 baud, n/e/o/ parity,7/8 data bits,1/2 stop bits
Mounting	X	X	DIN Rail
Options	X	Quick Disconnect Connectors available for Eurotherm, FCC and MMI probes	Interface: Standard product Port 1 is RS232 Port 2 is RS422/485 Any combination of RS232, 422/485

Field Calibrators	Multifunction Temperature Calibrator
	
FEATURES	**Memocal 2000**
24V Loop Power Supply	✓
Accuracy	±0.015% of span
Calibration Software	X
Input/Output Type	15 type TC – 2 type RTD – mV – Ma - Ohms
Leather carrying case	Option
Multi Channel Data Logging	X
Power Supply	External charge and rechargeable Ni Mh batteries
Programmable Ramp Generator	✓
Real Time Clock with Memory	X
Serial Comm. Port	EIA 232 Modbus
Standard	Complies with AMS2750 field instrument
Panel size (DIN)	One channel IN/OUT
Display Type	Multifunction LCD

* Sensors should be used with controlling, recording and indicating instruments having an input impedance of 10 meg ohms or higher.

Actuators

Valve Assemblies and Components	Valve Actuators							
								
FEATURES	**EA01/EA02**	**EA12**	**EA20 Series**	**EA31**	**EA40 Series**	**EA50 Series**	**EA60 Series**	**EA70 Series**
Output Types	24V ac 50-60Hz 120V ac 50-60Hz 240V ac 50-60Hz	24V ac 60Hz 120V ac 60Hz 240V ac 60Hz	120V ac 60Hz 240V ac 60Hz 240V ac 50Hz	24V ac 60Hz 120V ac 60Hz 240V ac 60Hz	120V ac 60Hz 240V ac 60Hz 240V ac 50Hz	24V ac 60Hz 120V dc 60Hz 120V ac 50Hz 240V ac 60Hz 240V ac 50Hz	120V ac 50-60Hz	120V ac 60Hz 120V ac 50Hz
4-20mA Input	Selected Models	No	Optional	No	Optional	Optional	Optional	Optional
Auxiliary Switches	No	1 Optional	1 Standard additional 2 or 4 switches optional	1 Standard additional 2 or 4 switches optional	1 Standard additional 2 or 4 switches optional	1 Standard additional 2 or 4 switches optional	1 Standard additional 2 or 4 switches optional	1 Standard additional 2 or 4 switches optional
Position Signal	No	No	Potentiometer optional	Potentiometer optional	Potentiometer optional	Potentiometer optional	Potentiometer optional	Potentiometer optional
90° Stroke	✓	✗	✓	✗	✓	✓	✓	✓
180° Stroke	✗	✓	✓	✗	✓	✓	✓	✓
360° Stroke	✗	✗	✗	✓	✗	✗	✗	✗
Linear Stroke	✗	✗	✗	✗	✗	✗	✗	✗
Torque	150-300lb-in	60lb-in	50lb-in	220lb-in	50lb-in	60-220lb-in	450lb-in	550-1300lb-in
NEMA Rating	NEMA 4	NEMA 1	NEMA 4 (Selected Models)	NEMA 4 (Selected Models)	NEMA 3 (Selected Models)	NEMA 4 (Selected Models)	NEMA 4 (Selected Models)	NEMA 4 (Selected Models)
UL Listed	✓	✓	✓	✓	✓	✓	✗	✓
CUL or CSA	✓	✓	✓	✓	✓	✓	✗	✓
CE	Selected Models	✗	✗		✗ ✗	✗	✗	✗

Service and Support (check region for availability)

Accreditation

- Calibration: electrical, pressure, time, temperature and humidity
- Thermal Uniformity Surveys: (TUS) ovens, furnaces, freezers, chambers and System Accuracy Tests (SAT)
- Thermal imaging

Engineering Services

- Custom engineered solutions
- Design, configuration and implementation of bespoke systems
- Installation and commissioning
  - — discrete instrumentation up to large DCS systems

Technical Services

- Free telephone and web based support via dedicated help desk
- Extended warranty
- Loop tuning and optimization
- Service contracts
  - — Breakdown: 24hr cover 7 days a week with guaranteed response to site
  - — Parts management, including bonded spares placed on site
  - — Preventative maintenance and health checks
  - — Remote diagnostic support
  - — Backups and recovery
  - — Software and application support
  - — Bespoke Service Level Assessments (SLA)

Validation Services (GAMP)

- Complete validation to GAMP®5 guidelines
- Services to produce documentation for validation include:
  - — User requirements, functional specification and design specifications
  - — System build
  - — Installation, operational and performance qualifications
- Services to maintain the validated state including:
  - — Calibration
  - — Like-for-like parts management to minimize revalidation effort
  - — Controlled installation of patches and upgrades
  - — System operation and administration
  - — Backup recovery solutions
  - — Training for system operators and administrators

Eurotherm Online Services

Software as a Service (SaaS) - see page | 19 for details

Repair and Support Services

Repair option

- Premium: 24hr from receipt of module
- Express: 3 working days from receipt of module
- Standard: 5 Working days from receipt of module
- Upgrades, calibration, refurbished equipment for sale

Training

- Formal classroom based including bespoke courses
- Informal hands-on “question & answer” at customer’s site
- Self paced training modules

eos Eurotherm Online Services

Seamlessly transform equipment data into useful, actionable, and auditable information.

Eurotherm™ Online Services (EOS) by Schneider Electric™ is a trusted Software as a Service (SaaS) solution, for anywhere, anytime management and access to plant information. Ideal for industries such as aerospace, automotive, life sciences, health care and food & beverage, the tools combine the in-depth knowledge Eurotherm has on managing data, technology and calibration services. EOS is completely scalable; relevant to small scale manufacturing and large, multi-site businesses.

EOS Advisor

A unique online solution for managing equipment and staff more efficiently. One integrated system that meets all your compliance requirements.

eCAT™ - Tablet application for calibration

Eurotherm offers professional services supported by leading industry expertise and is recognised in the market place for its comprehensive, high quality, responsive offerings. In the same way we develop our products to deliver leading, innovative solutions, it makes sense that we develop our services in the same way.

The EOS tablet application for calibration (eCAT) is a mobile compatible tool that eliminates the drawbacks of a paper based system and improves the consistency of the calibration process. Calibration status of all plant equipment can be checked using a simple, intuitive web interface. Information such as calibration certificates can be quickly retrieved as and when required by authorized users. It enables customers to easily maximize plant availability and ensure compliance with regulatory standards such as Nadcap, AMS2750 and CQI-9.

- Increase equipment efficiency
- Establish robust universal workflow
- Reduce risk of human error
- Simplify searches
- Reduce operational costs
- Rest assured it's all secure

EOS Advisor applications leverage technology developed for Industrial Internet of Things and Industry 4.0 applications. These technologies improve cost efficiencies, enable predictive maintenance, and result in competitive advantage.



With the eCAT tool, an instrument test produces a certificate and QR label

Just scan the label for an instant view. Why not try it yourself?

Unlike many other technology solutions that require a "rip-and-replace" mentality - these solutions are a natural fit to an existing process setup and the technology easily wraps around current installations.



Check all scheduled activities easily on the EOS Advisor planning page.

Experience the advantages of EOS Advisor with a three-month trial.

Sign up now

www.eurotherm.co.uk/services

Life Is On | Eurotherm® by Schneider Electric

Eurotherm Limited

Faraday Close, Durrington, Worthing
West Sussex, BN13 3PL United Kingdom
Phone: + 44(0) 1903 268500
Fax: + 44 (0) 1903 269582

www.eurotherm.co.uk

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