



## ACCURET+ 100 Position Controllers

Data sheet

CONTROLLERS		UNIT	EA+P2M-100-2.5/5A	EA+P2M-100-05/10A	EA+P2M-100-07/15A
Number of axes		-	2		
Current range	Continuous current (per axis)	Arms	2.5	5	7
	Max. overload current (per axis)	Arms	5	10	15
Power input	DC voltage	VDC	24 - 100		
	Max. current	Arms	15		
Control input	DC voltage	VDC	24 ( $\pm 10\%$ )		
	Max. current at 24 VDC	A	Typ. 1.3 / Max. 2.5		
PWM frequency		kHz	20		
Weight (without / with optional board slot)		kg	1 / 1.15		

CONTROL FEATURES		UNIT	
General	Motion profile and command management sampling time	$\mu\text{s}$	400
	Current loop sampling time	$\mu\text{s}$	50
	Position loop sampling time	$\mu\text{s}$	50
	Motion profiles	-	For basic and advanced profiles, refer to ULTIMET motion controllers
Standard interfaces	USB 2.0 (for setting only)	-	Full speed (12 Mbps), type-C
	ETEL real-time bus	-	TRANSNET at 1000 Mbps
	Ethernet	-	100 / 1000 Mbps
Position encoders interfaces	Analog 1 Vpp	-	Max. 2 MHz input / Max. 32768 interpolation factor
	EnDat 2.2	-	Max. 6.25 Mbps
	Digital EnDat 3	-	Max. 25 Mbps, 4-wire only (bus operation not supported)
	TTL	-	Max. 40 MHz input frequency
	Home / limit switch	-	TTL signal (EHS / L1 & ELS / L2)
GPIOs	Standard digital inputs	-	8 (common to both motors)
	Standard digital outputs	-	4 (common to both motors)
	Fast digital inputs	-	6 (common to both motors)
	Fast digital outputs	-	4 (common to both motors)
Software / programmability	COMET commissioning software	-	For setting / monitoring (for software compatibility, refer to the COMET manual)
	EDI (ETEL Device Interface)	-	DLL files (for software compatibility, refer to the EDI manual)
	Firmware update	-	USB, Ethernet and TRANSNET

ADVANCED FEATURES	
Fast triggers (1D and 2D)	Fast trigger based on theoretical or real position with less than 20 ns reaction time.
Force control	Precise force control with or without force sensor. Zero stop time for outstanding throughput.
Identification tools	Powerful identification tool for fine tuning and machine performance evaluation.
Gantry control	Advanced control algorithm to drastically reduce settling times on gantry type machines.
Stage protection	Safety algorithm to handle very fast and controlled axis stop.
Cogging and friction compensation	Tuning algorithm to compensate disturbances like friction and cogging.
Dual encoder feedback	Optimized management of dual encoder feedback on a single axis.
RTV (Real Time Values)	Max. 16 channels of real time data per axis for upper level motion management.
Trajectory filters	Advanced trajectory profiles to avoid axis vibrations and reduce settling times.
Functional safety	Safe Torque Off (STO): SIL3, Cat. 3, PLd.
EnDat 3 Multi-DOF	Ability to read EnDat 3 Multi-DOF devices up to three positions (typ. X-Y-Rz).

