

PLC Migration Solutions - EX100 Series

TOSHIBA INSTRUMENTATION & CONTROLS

EX100 SERIES PLC MIGRATION TO TYPE 1 LIGHT SERIES

Toshiba offers Type 1 Light Series PLC's for a variety of industrial and process control applications. Migrating to the Type 1 Light Series from the EX100 Series is a straight forward process. Rack dimensions are similar, facilitating equipment mounting. I/O modules are also similar, eliminating the need for re-wiring configurations. The upgrade to the Type 1 Light Series also includes a free version of Toshiba's Vtool4 Software. This software's versatility, ease of use, and built-in library of application function blocks allow the programmer to quickly deploy application solutions.

Specifications	EX100 Series	Type 1 Light Series
CPU	MPU11/MPU12A (4K steps)	PUM11(32K steps)
Racks	UBA1/2; UBB1/2 (insert modules)	BU664/666/668 (plug in modules; dimensions similar)
PS	PS261(AC); MPS31(DC)	PS693(AC); PS632(DC)
I/Os	DI, DO, AI, AO, etc	DI, DO, AI, AO, etc (I/O modules similar; terminal same; no re-wiring)
Programming Software	EXPDD250-V (hardware key); DOS base	Vtool4 (windows); (program can be retype line for line)
Programming Cable	Special RS232 Serial Cable	USB(printer); Ethernet
Programming Language	Ladder logic	IEC61131-3 (LD/FB/SFC/ST)
Communication/Network	Toshiba computer link(RS-485); ASCII; Tosline 30; Modbus RTU; Motion 1 axis	Toshiba computer link (RS485; Ethernet); UDP/TCP; Modbus TCP/IP; Modbus RTU; Toshiba ASD protocol; TC-NET100 loop; Devicenet; Profibus DP. (Toshiba Tosline S20/LP; F10 and FL-Net are supported, but not recommended for upgrade; motion option is not available)



EX100 Series



Type 1 Light Series



TYPE 1 LIGHT SERIES - INFORMATION & NVTOOL4

For assistance, please contact Toshiba at TIC-PLC@toshiba.com

Type 1 Light Information: www.toshiba.com/tic/other-products/plcs/type1-light

Free tool link: <https://www.mssc-direct.toshiba.co.jp/tools/en/seigyo/nvtool4/index.asp>

Free tool registration: https://www.webcom.toshiba.co.jp/sis/en/license_e.php

Tool update link: <https://www.mssc-direct.co.jp/tools/en/seigyo/index.asp>

TYPE 1 LIGHT SERIES - FUNCTION SPECIFICATIONS

Design Features			Specifications		
			Type1 Light S	Type1 Light H	Type1 Light D
Control System			Stored Program Cyclic Scan System		
Processor	Control Processor		32 bit General Purpose Processor		
	Language Processor		Exclusive Language Processor (LP)		
Execution Method	Scan Method	Ultrafast Scan	1 - 500 ms (1ms Unit)		
		High-Speed Scan	1 - 500 ms (1ms Unit)		
	Main Scan	Floating Scan	Selectable		
		Scheduled Scan	1 - 1000 ms (1ms unit)		
Input/Output System			Batch Input/Output: Yes (Only MS Task Synchronized), Direct Input/Output: Yes		
Interruption	I/O	Number	8		
	Multiple Interruption Function	I/O Multiple Interrupt	N/A		
	Interrupt Response		1 ms or Less		
Program Type			EV/SS/IP/HS/MS		
Program Capacity			32 K Steps	64 K Steps	128 K Steps
Number of Tasks/Programs	EV		8 Tasks, 1 Program/Task		
	SS		1 Task, 1 Program/Task		
	IP		8 Tasks, 1 Program/Task		
	HS		1 Task, 128 Program/Tasks		
	MS		1 Task, 256 Program/Tasks		
Data Volume	Local/Global Variables		64 kW	96 kW	128 kW
	Special Register (S)		1 kW		
	Data Register (D)		8 kW		
	Station Global Variables		-		
	I/O Variables (IQ)		3 kW	3 kW	8 kW
	Index Register		8 Types		