PSN87 MTL4000 to MTL4500 series migration document



	MTL4000	MTL4500	Function	Channels	Comments
Colour					ALL modules, top connector pin assignments changed
		MTL4510	DI	4	New 4ch DI for space saving
		MTL4510B	DI	4	Backward compatibility modes for MTL4013,15, 16 and 17 but with solid state output
	MTL4013	MTL4513	DI	2	Phase reversal and LFD added. Outputs can be used with -ve or +ve voltages so switching 24V out to the DCS is now possible. The MTL4013 had pin 8 grounded which prevented this
	MTL4014	MTL4514	DI	1	Phase reversal added. LFD relay on MTL4514 energises in alarm state to allow parallel connection for alarm output on backplanes.
	MTL4015	MTL4511	DI	1	No repeat contact on MTL4511, this covered by MTL4510B if required. MTL4511 has changeover contacts
	MTL4016	MTL4516	DI	2	No repeat contact on MTL4516, this covered by MTL4510B if required
		MTL4516C	DI	2	New function, changeover contacts, not originally in 4000 series
	MTL4017	MTL4517	DI	2	Phase reversal added. LFD relay on MTL4517 energises in alarm state to allow parallel connection for alarm output on backplanes. MTL4017 emulated by MTL4510B if required
	MTL4024	MTL4521	DO	1	Note change in part number scheme. No override on MTL4521
	MTL4023	MTL4523	DO	1	
	MTL4023R	MTL4523R	DO	1	
		MTL4523L	DO	1	New function, for safety systems normally energised outputs with LFD
	MTL4021	MTL4524	DO	1	Note change in part number scheme.
	MTL4021S	MTL4524S	DO	1	Note change in part number scheme. Override input grounding must be checked if control input is not isolated
	MTL4025	MTL4525	DO	1	
	MTL4031	MTL4531	Vib		
	MTL4032	MTL4532	Pulse		
		MTL4541	AI	1	3 port isolation, note output on pins 9 and 8, not 9 and 11. For backward compatibility the MTL4541B will be needed as backplanes will not pick up the pin 8 connection on the MTL4541
	MTL4041A	MTL4541A	AI	1	Output on pin 9+ and 8 and 11 return for backward compatibility with MTL4041A
	MTL4041B	MTL4541B	AI	1	
	MTL4041P	MTL4541P	AI	1	2 port isolated version only primarily for backward compatibilityP versions seldom required on new projects.
	MTL4041T		AI	1	Last time buys to be implemented
	MTL4042		AI	1	MTL4541P will address most applications, check field voltage @ 20mA
	MTL4043	MTL4541S	AI	1	Will not be considered for MTL4500 range. Used with Moore APACS, Quadlog and Yokogawa YISS Prosafe. These systems are being phased out. Backplane change required to support MTL4541S.
		MTL4544	AI	2	3 port isolation and ch-ch isolation on safe side. Passive inputs also provided for connection to 3 and 4 wire transmitters.
	MTL4044	MTL4544B	AI	2	MTL4544B has the facility to handle active current source inputs
		MTL4544A	AI	2	Dual channel passive input
	MTL4044D	MTL4544D	AI 1in 2 out	1	Use MTL4544B with inputs wired in series
	MTL4048		AI	1	Last time buys to be implemented

	MTL4000	MTL4500	Function	Channels	Comments
Colour					
	MTL4045B		AO	1	Non-HART module not available in MTL4500, use MTL4546
	MTL4045C		AO	1	Non-HART module not available in MTL4500, use MTL4546Y
	MTL4045S		AO	1	Last time buys to be implemented
	MTL4046	MTL4546	AO	1	
	MTL4046C	MTL4546Y	AO	1	
	MTL4046P		AO	1	MTL4546(Y) will work in 99% of applications, check load requirements
		MTL4549	AO	2	New dual channel AO, 2 x MTL4546
		MTL4549Y	AO	2	New dual channel AO, 2 x MTL4546Y
	MTL4061	MTL4561	F&G	2	Extra functionality being considered in Phase 2
	MTL4081		mV	1	Last time buys to be implemented
	MTL4083		V	1	Last time buys to be implemented
	MTL4073	MTL4575	TI	1	Connection to pin 11 maintained for backward compatibility with MTL4073. Trip output added to provide either a trip alarm output, configured in software, or early burnout detection. Early burnout monitors the resistance of the thermocouple and when it is >500hms the alarm is triggered. The output will continue as normal unless the TC goes open circuit when the up/downscale drive will be activated
	MTL4099	MTL4599	Dummy	2	
	MTL4099N	MTL4599N	non-IS	2	Cased feedthrough module with internal configuration possible
	MTL4051		serial	1	Last time buys to be implemented
	MTL4053		F-bus	1	Terminate
	MTL4215 MTL4216 MTL4220	MTL4526 MTL4526	DO DO ELD	2 2 8	Operates in loop powered or switch controlled Operates in loop powered or switch controlled Will continue in MTL4000 format
	MTL4421RS MTL4401 MTL4403 MTL4427-SR MTL4927		DO DE trip Trip SDO PSU	1 1 1 1	Will continue in MTL4000 format but MTL4526 can be used with grey field terminals Last time buys to be implemented Last time buys to be implemented Last time buys to be implemented Last time buys to be implemented
	MTL4024-SR MTL4041B-SR MTL4041P-SR MTL4061-SR MTL4113P	MTL4501-SR	DO AI F&S DI - SIL3	1 1 2 1	Last time buys to be implemented Last time buys to be implemented Last time buys to be implemented Last time buys to be implemented

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PSN95

MCK45 Clip Kit

The MCK45 clip kit is used when upgrading an MTL4000 series backplane installation to use MTL4500 series isolator modules. For compatibility of modules and backplanes please refer to Product Support Note PSN8706.

The MCK45 kit contains 16 pairs of clips to allow a 16 module backplane to be converted for use with MTL4500 series. However, where only a few modules are to be replaced then the clips can be fitted as required.

The clips are manufactured in pairs, this ensures the alignment is correct on the backplane. However, it is possible to split them if only one module is to be replaced. Generally it is desirable to replace 2 modules at a time.





Each clip is supplied with an M3 screw which is screwed in to the M3 insert already fitted in the backplane. Once the clips are mounted the MTL4500 series isolator can be simply plugged onto the backplane as shown below.



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