

INTEGRAL ACTUATOR MODULE

- E23041 – SINGLE ACTUATOR**
- E23042 – DUAL ACTUATOR**
- E23045 – SINGLE ACTUATOR POWER**
- E23046 – DUAL ACTUATOR POWER**

FUNCTIONAL DESCRIPTION

Introducing the NEW single/dual channel integral actuator module (*iAM*) by Liber-T Medtech. The *iAM*-1 & 2 is the industry most simple, yet versatile wheelchair actuator module to date. The *iAM* comes with plug and play connectors, wiring harness, programmable accel/decel and attendant output in a small metal enclosure.

The Single/Dual *iAM* includes wiring harness, Soft Start Soft Stop capabilities, Thermal Protection, Drive Lockout (DLO) with visible LED.

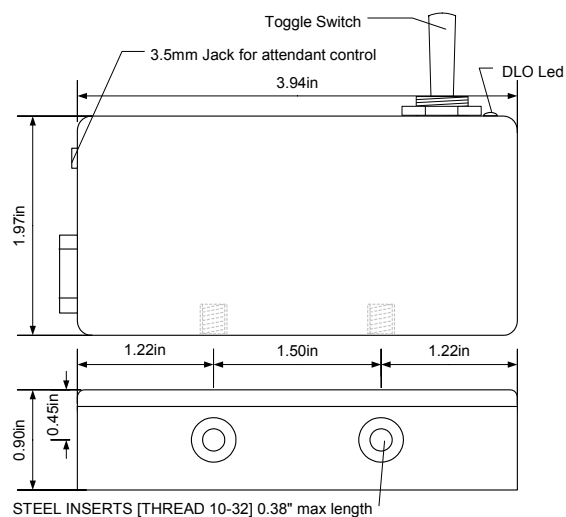
Packaged in a small metal case the *iAM* is a smart and economical solution to actuator drive.

E23040 SERIES



SPECIFICATIONS

- Microprocessor based electronic
- Integral Unit (with remote capabilities / attendant control)
- Black Die Cast Aluminium Casing
- Horizontal / Vertical configurations available
- Connectors configuration available
- Programmable Half Speed & Drive Lockout
- Programmable SoftStart / SoftStop Accel-Decel rate
- Programmable Limit Switch polarity
- Security Inhibit
- Visible Drive Lockout (red LED)
- Thermally Protected (resettable fuse)
- TASH™ Compatible (stereo / mono 3.5mm jack)
- Supply:24V_{nom} (16V-32V)*
- Very Low Standby Current: < 3.3mA



DIMENSIONS (SINGLE&DUAL)

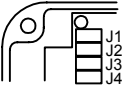
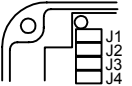
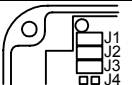
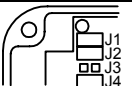
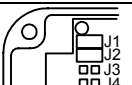
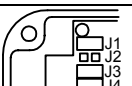
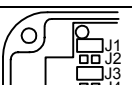
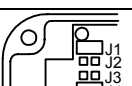
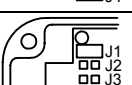
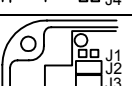
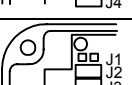
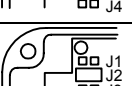
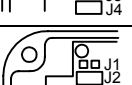
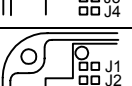

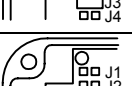
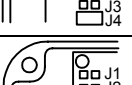
DIE CAST ALUMINIUM BLACK CASING	
Width	1.97"
Length	3.94"
Height	0.90"

*Also available in 12V_{nom} configuration

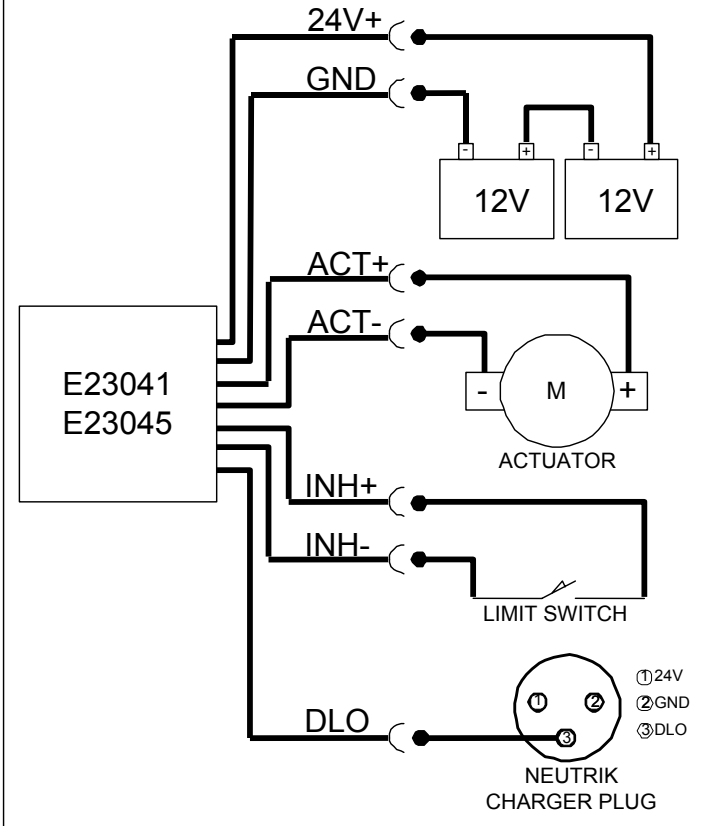
SINGLE ACTUATOR JUMPERS CONFIGURATION

		JUMPERS				ACCEL / DECEL	3.5mm JACK	INTERLOCK		
		A	B	C	D			FWD	REV	POLARITY
0		ON	ON	ON	ON	HIGH [0.5SEC]	STEREO	RUN	RUN	NORMALLY OPEN
1		ON	ON	ON	OFF	HIGH [0.5SEC]	STEREO	RUN	STOP	NORMALLY OPEN
2		ON	ON	OFF	ON	HIGH [0.5SEC]	STEREO	STOP	RUN	NORMALLY OPEN
3		ON	ON	OFF	OFF	SLOW [1.0SEC]	STEREO	RUN	RUN	NORMALLY OPEN
4		ON	OFF	ON	ON	SLOW [1.0SEC]	STEREO	RUN	STOP	NORMALLY OPEN
5		ON	OFF	ON	OFF	SLOW [1.0SEC]	STEREO	STOP	RUN	NORMALLY OPEN
6		ON	OFF	OFF	ON	HIGH [0.5SEC]	MONO	RUN	RUN	NORMALLY OPEN
7		ON	OFF	OFF	OFF	HIGH [0.5SEC]	MONO	RUN	STOP	NORMALLY OPEN
8		OFF	ON	ON	ON	HIGH [0.5SEC]	MONO	STOP	RUN	NORMALLY OPEN
9		OFF	ON	ON	OFF	HIGH [0.5SEC]	MONO	RUN	RUN	NORMALLY CLOSE
10		OFF	ON	OFF	ON	HIGH [0.5SEC]	MONO	RUN	STOP	NORMALLY CLOSE
11		OFF	ON	OFF	OFF	HIGH [0.5SEC]	MONO	STOP	RUN	NORMALLY CLOSE
12		OFF	OFF	ON	ON	HIGH [0.5SEC]	STEREO	RUN	RUN	NORMALLY CLOSE
13		OFF	OFF	ON	OFF	HIGH [0.5SEC]	STEREO	RUN	STOP	NORMALLY CLOSE
14		OFF	OFF	OFF	ON	HIGH [0.5SEC]	STEREO	STOP	RUN	NORMALLY CLOSE
15		OFF	OFF	OFF	OFF	CUSTOM SETTINGS				

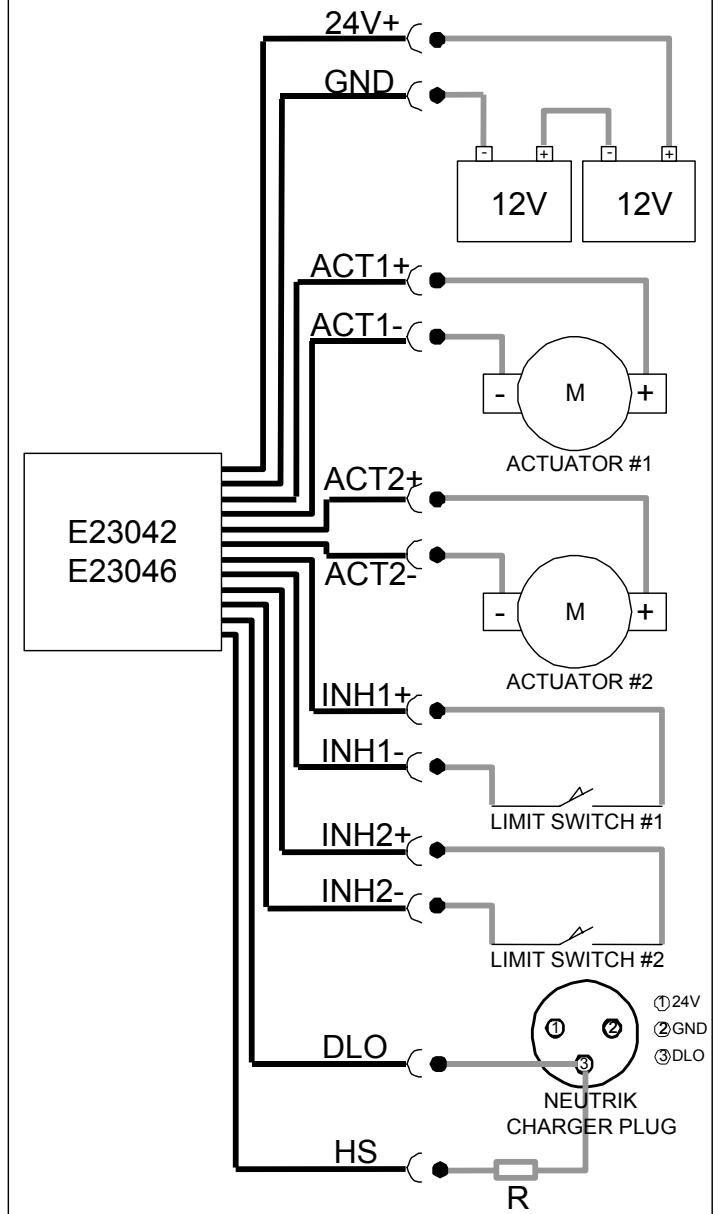
DUAL ACTUATOR JUMPERS CONFIGURATION

		JUMPERS				ACCEL/ DECEL	INH1 ACTIVATION		INH2 ACTIVATION		
		A	B	C	D		A1 FWD/REV	A2 FWD/REV	A1 FWD/REV	A2 FWD/REV	
0		ON	ON	ON	ON	HIGH [0.5SEC]	RUN/RUN	RUN/RUN	RUN/RUN	RUN/RUN	NORMALLY OPEN
1		ON	ON	ON	OFF	HIGH [0.5SEC]	RUN/STOP	RUN/RUN	RUN/RUN	STOP/RUN	
2		ON	ON	OFF	ON	HIGH [0.5SEC]	STOP/RUN	RUN/RUN	RUN/RUN	RUN/STOP	
3		ON	ON	OFF	OFF	HIGH [0.5SEC]	RUN/STOP	STOP/RUN	STOP/RUN	RUN/STOP	
4		ON	OFF	ON	ON	HIGH [0.5SEC]	RUN/STOP	RUN/STOP	STOP/RUN	STOP/RUN	
5		ON	OFF	ON	OFF	HIGH [0.5SEC]	RUN/RUN	RUN/RUN	STOP/RUN	STOP/RUN	
6		ON	OFF	OFF	ON	HIGH [0.5SEC]	RUN/RUN	RUN/RUN	RUN/RUN	STOP/RUN	
7		ON	OFF	OFF	OFF	HIGH [0.5SEC]	RUN/RUN	RUN/RUN	RUN/RUN	RUN/STOP	
8		OFF	ON	ON	ON	HIGH [0.5SEC]	RUN/RUN	RUN/RUN	RUN/STOP	STOP/RUN	
9		OFF	ON	ON	OFF	HIGH [0.5SEC]	RUN/RUN	RUN/RUN	RUN/RUN	RUN/RUN	NORMALLY CLOSE
10		OFF	ON	OFF	ON	HIGH [0.5SEC]	RUN/STOP	RUN/RUN	RUN/RUN	STOP/RUN	
11		OFF	ON	OFF	OFF	HIGH [0.5SEC]	RUN/RUN	RUN/RUN	RUN/RUN	STOP/RUN	
12		OFF	OFF	ON	ON	HIGH [0.5SEC]	RUN/RUN	RUN/RUN	STOP/RUN	STOP/RUN	
13		OFF	OFF	ON	OFF	HIGH [0.5SEC]	RUN/RUN	RUN/RUN	RUN/RUN	RUN/STOP	
14		OFF	OFF	OFF	ON	HIGH [0.5SEC]	RUN/RUN	RUN/RUN	RUN/STOP	STOP/RUN	
15		OFF	OFF	OFF	OFF	HIGH [0.5SEC]	RUN/RUN NORMALLY OPEN	RUN/RUN NORMALLY OPEN	RUN/STOP NORMALLY CLOSE	STOP/RUN NORMALLY CLOSE	

ONE [1] ACTUATOR TYPICAL WIRING



TWO [2] ACTUATORS TYPICAL WIRING



E2304X SERIES DUTY CYCLE*

	E23041/ E23042 Inom=4A** Idc10%=5.7A***	E23045/ E23046 Inom=6A** Idc10%=9.8A***
@Inom	100%	100%
@Inom+33%	16%	20%
@Inom+50%	7%	17%

*a 10% of duty cycle is 2 minutes of continuous activation reaching thermal protection with a 18 minutes of continuous inactivation to reach 25degC

**Inom is defined as the nominal current (ie the maximum continuous current before thermal protection is reached)

***Idc10% is defined as the maximum current giving a 10% duty cycle

E2304X SERIES THERMAL PROTECTION*

I (AMPS)	E23041/E23042 TIME (SEC)	E23045/E23046 TIME (SEC)
4.0	1031	∞
5.3	180	∞
6.0	70	∞
7,0	63**	1800**
8.1	37	300
9.0	27	250

*time to reach thermal protection from 25degC

**estimated values