

# Microflex Drive Factory Settings

Microflex factory settings for machines Z035 to Z042

## Contents

Microflex Drive with Beckhoff Motors

Comments



...This is for reference only. The drive is now obsolete. There is an upgrade path for Microflex drives to RS Automation

## Microflex Drive with Beckhoff Motors

Due to the sudden obsolescence of the Samsung drive, in conjunction with a physical size issue of the Baldor / ABB motor, these machines were built with a Baldor / ABB Microflex drive, coupled with a Beckhoff 240v AM3032 motor.

The drive / motor combo has been notoriously tricky to tune

From 2020, the replacement route for a faulty drive will be an upgrade to and RS automation drive and motor combination

		Motor Type:	BSM100C-100AA	AM3032-0D00	AM3032-0D00	AM3032-0H00	AM3032-0H00
			Microflex	Microflex	Microflex	Microflex	Microflex
		Axis:	R axis	Y Axis	Z Axis	X Axis	Saw Axis
Motor Parameters							
	Cat No		n/a	AM3032-0D00	AM3032-0D00	AM3032-0H00	AM3032-0H00
	Cont Stall Current			2.2	2.2	5	5
	Pk Current Limit			4.4	4.4	6	6
	V Constant			82.4	82.4	37.3	37.3
	Inductance			25.6	25.6	5.6	5.6
	Resistance			11.6	11.6	3.2	3.2
	Max Speed			3000	3000	7000	7000
	Poles			8	8	8	8
Feedback options							
	Type		Resolver	Resolver	Resolver	Resolver	Resolver
	Resolution		4096	4096	4096	4096	4096
	Sim Enc Output		4096	2048	2048	2048	2048
Operating Mode							
	Control mode		position	Speed	Speed	Speed	Speed
	Current Source		Analog	Analog	Analog	Analog	Analog
	Speed Source		Analog	Analog	Analog	Analog	Analog
	Position Source		pulse	pulse	pulse	pulse	pulse
Overload Protection							
	Motor Overload Action			Fold Back	Fold Back	Fold Back	Fold Back

	Drive overload Action			Trip and disable	Trip and disable	Trip and disable	Trip and disable
App Max Speed							
	App Max Speed		2500	3000	3000	6000	6000
	Ovl Speed Trip		110	110	110	110	110
Scale Factor							
	Scale Factor		2000	800	800	153	153
	Time Scale		1000	1000	1000	1000	1000
	Accel tie		0	0	0	0	0
	Decel Time		0	0	0	0	0
	Max Pos Err		5	5	5	35	35
	Follow Numerator		10	1	1	1	1
	Follow Denominator		1	1	1	1	1
Digital Input							
	Active Level		High	High	High	High	High
	Function		Reset input	Reset input	Reset input	Reset input	Reset input
	Global Error Input		High	High	High	High	High
Speed Loop							
	KVPROP		30	8	4	6	6
	KVINT		2000	100	500	1000	1000
	KVTIME		0.5	0.5	0.5	0.5	0.5
	KVTRACK		100	100	100	100	100
Position Loop							
	KPROP		1.57				
Reverse Red and Blue demand on X, Y, Z				Yes			
Not on saw, but reverseEncoder=1, drivetype=4							
driveOK X50 is in place of pusher danger - io.saw update							