Mpg through binary inputs

Main window:

	IShow	Carg					
SYS CFG ?=	SUPPORT	CFG 2					×
CNC Settings							
Axes/Motors	MPG	G/Encoder through binar				Encoder	
Network		Input1 Input2	Slot	Axis	Dimension	Resolution	
Motion Hardware PLC	#0 🕅 [I	Input 8 🔻 Input 9 👻	MPG wheel 👻	Pendant 👻		400 🗘	
Software PLC	#1 🕅 🛛	Input 10 🔻 Input 11 🔻	MPG wheel	General Purpose 🔻		400 🗘	
G-codes settings	#2 🔽 🛽	Input 8 🔻 Input 9 💌	MPG wheel 🔻	Pendant 👻		65536 ≑	
DXF import settings Macro List		Input 10 V Input 11 V	MPG wheel	General Purpose 🔻		400	
Macro Wizard		G/Encoder ET10 encode		(
Probing Wizard		Input#	Slot	Axis	Dimension	Encoder	
Preferences Screen						Resolution	
Work Offsets	#4 🕅	ET10 Encoder#0 🔻		X *		100 *	
Parking Coordinates	#5 🕅	ET 10 Encoder #0 🔻	MPG wheel	<u>x</u>		100 🔹	
Inputs/Outputs/Sensors Alarms	#6 🕅	ET 10 Encoder #0 🔻	MPG wheel	[χ · · ·		100 🔺	
Limits	#7 🕅	ET 10 Encoder #0 *	MPG wheel 👻	χ -		100 🔹	
Triggers/Timers							
MPG through binary inputs Jog through ADC inputs	3						
I/O Expand cards mapping							
ADC Mapping							
Connections Technology							
Camera							
5 axes RTCP							
 Panel/Pendant Hardware 							
Advanced							
sic functions:							
SYS PLC	SUPPORT				vio	Set step	Set resolution
CFG		JOIGU				in «mm»	our
	elect No	Of inpu	ut 2 MPG ty	pe for N	Irti	of MPG	
CNIC Settingen		G/Encoder through binar	y inputs				
Axes/ Woldrs	f input 1	Input1 Input2	Slot	Axis	Dimension	Encoder	
Network Motion					owner ision	Resolution	Conc
Motion Hardware PLC		Input 8 🔻 Input 9 🔻	MPG wheel 👻	Pendant 💌		400	Save
Software PLC	🔻 #1 🕅 I	Input 10 🔻 Input 11 🔻	MPG wheel 🔻	General Purpose 🔻		400	settings /
G-codes settings		Input 8 🔻 Input 9 💌	MPG wheel 💌	Pendant 💌		65536 🚔	
DXF import settings Macro List	vation #3 🗹 I	Input 10 🔻 Input 11 👻	MPG wheel 🔻	General Purpose 🔻		400	
Macro Wizard		G/Encoder ET10 encode					
		Input#	Slot	Axis	Dimension	Encoder	/
Preferences Screen						Resolution	
Work Offsets	#4 🕅	ET 10 Encoder #0 🔻	MPG wheel 👻	* *		100	
Parking Coordinates	#5 🕅	ET 10 Encoder #0 🔻	MPG wheel 🔻	X -		100	
Inputs/Outputs/Sensors Alarms	#6 🕅	ET 10 Encoder #0 🔻	MPG wheel 🔻	х 👻		100	
Limits	#7 🕅	ET 10 Encoder #0 👻	MPG wheel 👻	x 👻		100	
MPG through bipapy inputs	3				ļ		
MPG through binary inputs Joy through ADC inputs		/	T	Î	Ţ		
I/O Expand cards mapping					\		
ADC Mapping					\		
Connections							

Select

MPG type

Set step

in «mm»

of MPG

Set axis

for MPG

Select number of

encoder for ET10

Connections Technology

Camera 5 axes RTCP Panel/Pendant Hardware Advanced

C

Mpg/Encoder throught binary inputs

• To activate the MPG, it is necessary to check the box next to number of MPG:

MPG/Encoder through binary inputs

	Input1	Input2	Slot	Axis	Dimension	Encoder Resolution
#0 🔽	Input 8 🔻	Input 9 🔻	MPG wheel	Pendant 🔹		400 🜲
#1 🕅	Input 10 💌	[Input 11 💌	MPG wheel 👻	General Purpose 💌		400 *
#2 🕅	Input 8 💌	Input 9 💌	MPG wheel 👻	Pendant 💌		65536 🜲
#3 🕅	Input 10 🔻	[Input 11 👻	MPG wheel 💌	General Purpose 🔻		400 *

- MPG designed for manual control of the CNC without resorting to control from the operator panel. With the help of the control panel, the operator of the CNC machine can change the position of the axes, change the feedrate, adjust the spindle operation, set "0" and perform other operations while in close proximity to the workpiece.
- examples of MPG are presented below:



• After activation, you can select the operating input numbers for the MPG on the controller - input1 and input2

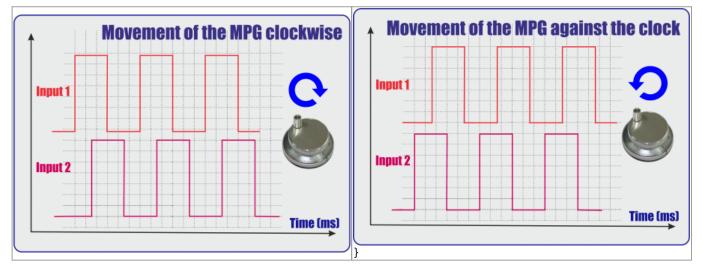
input1:

	Input	1	Input2		Slot		Axis		Dimension	Encoo Resolu	
#0 🔽	Input 8	-	Input 9	•	MPG wheel	•	Pendant	•		400	*
#1 🔲	Input 0 Input 1	*	Input 11	¥	MPG wheel	*	General Purpose	Y		400	A
‡2 🔲	Input 2 Input 3		Input 9	-	MPG wheel	Ψ.	Pendant	7		65536	×
#3 🔳	Input 4 Input 5		Input 11	w.	MPG wheel	•	General Purpose	-		400	×
M	Input 6 Input 7		ET10 enco	oder	r inputs						
	Input 8 Input 9	-	ut#		Slot		Axis		Dimension	Encoo Resolu	
#4 🗐	ET	10 Er	ncoder#0	*	MPG wheel	*	X	-		100	A V

input2:

M	PG/Encod	ler t	hrough b	inar	y inputs						
	Input	1	Input	2	Slot		Axis		Dimension	Enco Resolu	
#0 🔽	Input 8	•	Input 9	•	MPG wheel	•	Pendant	•		400	*
#1 🕅	[Input 10	*	Input 0 Input 1	-	MPG wheel	*	General Purpose	*		400	A
#2 🕅	Input 8	*	Input 2 Input 3		MPG wheel	-	Pendant	٣		65536	5 *
#3 🕅	Input 10	-	Input 4 Input 5		MPG wheel	-	General Purpose	-		400	A V
M	IPG/Enco	der . Inp	Input /	Ŧ	<i>r inputs</i> Slot		Axis		Dimension	Enco Resolu	100 B 100 B 100 B
#4 🕅	ET	10 Er	icoder#0	٣	MPG wheel	-	X	*		100	.A.

• Timing diagram of signals of MPG:



• It is also necessary to select the MPG function:

M	PG/Encod	ler t	hrough b	inar	y inputs						
	Input1		Input2	l.	Slot		Axis		Dimension	Enco Resolu	
#0 🔽	Input 8	•	Input 9	•	MPG wheel	-	Pendant	•		400	*
#1 🕅	Input 10	Y	Input 11	*	MPG wheel THC/Z axis offset	ſ	General Purpose	*		400	A
#2 🕅	Input 8	-	Input 9	٣	Spindle Sync MPG wheel	-	Pendant	٣		65536	A V
#3 🔲	Input 10		Input 11	¥	[MPG wheel *	-	General Purpose	*		400	A. V
Functions	Discri	pti	ons								
MPG wheel	Direct	cor	ntrol of N	1PG	ì						
THC/Z axis offset	Contro	llin	g the tra	ıcki	ing on cutting w	ith	the help of N	1PC	ì		
Spindle Sync	Spindle	e co	ontrol, vi	ia t	he analog outpu	ıt t	o control the	sp	ndle spe	ed.	

• If necessary, select the coordinate axis, which will be controlled by MPG

at 10 • Input 11 • MPG wheel • X X 400 • at 8 • Input 9 • MPG wheel • A 65536 • at 10 • Input 11 • MPG wheel • B at 10 • Input 11 • MPG wheel • B C U 400 •		Input1	Input2	Slot	ł	Axis	Dimension	Enco Resolu	
at 10 ▼ Input 11 ▼ MPG wheel ▼ Y at 8 ▼ Input 9 ▼ MPG wheel ▼ A at 10 ▼ Input 11 ▼ MPG wheel ▼ B C U Facoder FT10 encoder inputs	#0 🔽	Input 8 🔻	Input 9 🔻	MPG wheel	i choant			400	•
at 8 ▼ Input 9 ▼ MPG wheel ▼ A at 10 ▼ Input 11 ▼ MPG wheel ▼ B C U Encoder FT10 encoder inputs	#1 🕅	Input 10 💌	Input 11 💌	MPG wheel	Y Y	*		400	×
It 10 V Input 11 V MPG wheel V C U 400 V	#2 🕅	Input 8 💌	Input 9 🔻	MPG wheel	A	_		65536	*
Encoder FTTU encoder innuits	#3 🕅	Input 10 🔻	Input 11 🔻	MPG wheel				400	A V
-	need.		1 Contraction of the second	P.L	C			4	100

• Next we select the length of displacements with the help of MPG. Number of movements in mm per pulse MPG:

	Input1	Input2	Slot	Axis	Dimension	Encoder Resolution
#0 🔽	Input 8 🔻	Input 9 🔻	MPG wheel	Pendant 🔹	0.1	400 🖨
#1 🕅	Toput 10 -	Toput 11 *	MDC wheel	General Durnose 👻		400

• We set the resolving power of the PGM - the number of pulses per one revolution of PGM



Mpg/Encoder ET10 throught binary inputs

If you use the ET10 controller https://shop.pv-automation.com/et10/9-mycnc-et10.html, you can used not only MPG function, but also the encoders, to monitor the position of any of the axes.

To activate the MPG or Encoder, it is necessary to check the box next to needed number:
 MPG/Encoder ET10 encoder inputs

	Input#	Slot	Axis	Dimension	Encoder Resolution
#4 🔽	ET 10 Encoder #0	MPG wheel	• X	•	100 🖨
#5 🕅	ET10 Encoder#0 *	MPG wheel	- X		100 *
#6 🕅	ET 10 Encoder #0 🔹	MPG wheel	•] [X	•	100 *
#7 🕅	ET10 Encoder#0 🔻	MPG wheel	-] [x	-	100 🛓

• After activation, you can select the encoder number on the controller for operating

	Input#		Slot		Axis		Dimension	Enco Resolu	
#4 🔽	ET 10 Encoder #0	+	MPG wheel	•	X	•		100	×
#5 🕅	ET 10 Encoder #0 ET 10 Encoder #1		MPG wheel	*	X	*		100	A V
#6 🕅	ET 10 Encoder #2 ET 10 Encoder #3		MPG wheel	*	X	-		100	A V
#7 🕅	ET 10 Encoder #4 ET 10 Encoder #5	Ш	MPG wheel	*	X	*		100	A. W
	ET 10 Encoder #6 ET 10 Encoder #7 ET 10 Encoder #8 ET 10 Encoder #9	*							

• It is also necessary to select the MPG function:

MPG/Encoder ET10 encoder inputs

MPG/Encoder ET10 encoder inputs

	Input#	Slot	Axis	Dimension	Encoder Resolution
#4 🔽	ET 10 Encoder #0 🔹	MPG wheel	X	•	100 🖨
#5 🕅	ET 10 Encoder #0 🔻	Inc/2 axis offset	x	•	100 *
#6 🕅	ET10 Encoder#0 🔻	Spindle Sync	X	•	100 🔺
#7 🕅	ET10 Encoder#0 💌] [MPG wheel 👻] [x	•]	100 *

Functions	Discriptions
MPG wheel	Direct control of MPG
THC/Z axis offset	Controlling the tracking on cutting with the help of MPG
Spindle Sync	Spindle control, via the analog output to control the spindle speed.

• If necessary, select the coordinate axis, which will be controlled by MPG

	Input#	Slot	Axi	S	Dimension	Enco Resolu	
#4 🔽	ET 10 Encoder #0 🔻	MPG wheel	▼ X	•		100	A V
#5 🕅	ET 10 Encoder #0 🔻	MPG wheel	Y Y			100	A V
#6 🕅	ET10 Encoder#0 🔻	MPG wheel	▼ Z A	E		100	A V
#7 🕅	ET10 Encoder#0 🔻	MPG wheel	▼ B C			100	A. W

• Next we select the length of displacements with the help of MPG. Number of movements in mm per pulse MPG:

	Input#	Slot		Axis	Dimension	Encoder Resolution
#4 🔽	ET 10 Encoder #0 🔻	MPG wheel	▼] [x	•	0.1	100 🌲
#5 🕅	ET 10 Encoder #0 🔻	MPG wheel	▼] [x			100 *
#6 🕅	ET 10 Encoder #0 🔻	MPG wheel		Ŧ		100 *
#7 🕅	ET 10 Encoder #0 🔻	MPG wheel	▼ X	-		100 *

• We set the resolving power of the PGM - the number of pulses per one revolution of PGM

	Input#	Slot		Axis	Dimension	Encoder Resolution
#4 🔽	ET 10 Encoder #0	MPG wheel	▼) [x	•	0.1	100 🖨
#5 🕅	ET10 Encoder#0	• MPG wheel	▼] [x	-		100
#6 🕅	ET10 Encoder#0	MPG wheel	*) [x	•		100 🗘
#7 🕅	ET10 Encoder#0	MPG wheel	* X			100 🖨

×

• Simple

From: http://docs.pv-automation.com/ - myCNC Online Documentation

Permanent link: http://docs.pv-automation.com/mycnc/mpg_throught_binary_inputs?rev=1538330852

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