

Property	Key	Description	Default	R/W	Saved
ACCEL	82	Acceleration (Q8.8 cts/ms/ms)	2048	R/W	Yes
ADDR	6	Address to peek/poke	0	R/W	No
ANA0	18	Analog input (pin 4:0-3V, 3:Gnd)	NONE	R/-	No
ANA1	19	Analog input (pin 2:0-3V, 3:Gnd)	NONE	R/-	No
BAUD	12	Baud rate/100. 96=9600 bps	9600	R/W	No
CMD	29	For commands w/o values: RESET,HOME,KEEP,PA	NONE	-/W	No
CT	56	32-Bit Close Target	30000	R/W	Yes
CT2	57	32-Bit Close Target	NONE	-/-	No
CTS	68	32-Bit Counts per revolution	4096	R/W	Yes
CTS2	69	32-Bit Counts per revolution	NONE	R/W	No
DEF	32	Default command for CAN	NONE	-/W	No
DIG0	14	Dig I/O: -1=In,0=Lo,1=Hi,2-100=%PWM (pin 41:0-3.3)	0	R/W	No
DIG1	15	Dig I/O: -1=In,0=Lo,1=Hi (pin 43:0-3.3V, 44:Gnd)	0	R/W	No
DP	50	32-Bit Default Position	0	R/W	Yes
DP2	51	32-Bit Default Position	NONE	-/-	No
DS	60	Default step	25000	R/W	Yes
E	52	32-Bit Endpoint	0	R/W	No
E2	53	32-Bit Endpoint	NONE	-/-	No
ECMAX	101	Encoder correction max value	0	R/W	No
ECMIN	102	Encoder correction min value	0	R/W	No
EN	94	Enable bitfield	NONE	R/W	No
EN2	95	Enable bitfield	NONE	-/-	No
ERROR	4	Error (tbd)	NONE	R/-	No
FET0	16	Brake output: 0=Off, 1=On	0	R/W	No
FET1	17	Tensioner output: 0=Off, 1=On	0	R/W	No
FIND	33	Find command for CAN	NONE	-/W	No
GRPA	26	Comm group A	NONE	R/W	Yes
GRPB	27	Comm group B	NONE	R/W	Yes
GRPC	28	Comm group C	NONE	R/W	Yes
HALLH	88	32-Bit Hall history bitfield	0	R/W	No
HALLH2	89	32-Bit Hall history bitfield	NONE	-/-	No
HALLS	87	Hall feedback bitfield: CBA	NONE	R/W	No
HOLD	77	Flag to hold position after move	0	R/W	Yes
HSG	71	High strain gage (tbd)	255	R/W	Yes
ID	3	CANbus ID	NONE	R/W	Yes
IHIT	108	Initialization torque	1500	R/W	Yes
IKCOR	93	Current sense correction factor	1638	R/W	Yes
IKI	92	Current sense integral gain	3276	R/W	Yes
IKP	91	Current sense proportional gain	8192	R/W	Yes
ILOGIC	24	Logic current (tbd)	NONE	R/-	No
IMOTOR	22	Motor current (2048+205/1A)	NONE	R/-	No
IOFF	74	Initialization offset	NONE	R/W	Yes
IOFF2	75	Initialization offset	NONE	-/-	No
IOFST	62	Current offset calibration	NONE	R/W	Yes
IPNM	86	CommandedCurrent / Nm (ratio)	2755	R/W	Yes
IVEL	73	Initialization velocity (tbd)	20	R/W	Yes
JIDX	85	Joint index	NONE	R/W	Yes
JOFST	98	Joint encoder calibration offset	0	R/W	Yes
JOFST2	99	Joint encoder calibration offset	NONE	-/-	No
JP	96	Joint encoder position	NONE	R/W	Yes
JP2	97	Joint encoder position	NONE	-/-	No
KD	80	Differential gain	8000	R/W	Yes
KI	81	Integral gain	0	R/W	Yes
KP	79	Proportional gain	2000	R/W	Yes
LCTC	104	Loop control torque coefficient	1	R/W	No
LCVC	105	Loop control velocity coefficient	1	R/W	No
LFLAGS	103	Loop feedback flags	0	R/W	No
LOAD	31	Load command for CAN	NONE	-/W	No
LOCK	13	Lock	0	-/W	No
LSG	72	Low strain gage (tbd)	0	R/W	Yes
M	58	32-Bit Move command for CAN	NONE	-/W	No
M2	59	32-Bit Move command for CAN	NONE	-/-	No
MCV	46	Max close velocity (cts/ms)	1500	R/W	Yes
MDS	65	Max duty sum for power limiting (tbd)	1650	R/W	Yes
MECH	66	32-Bit Mechanical angle (cts)	NONE	R/-	No
MECH2	67	32-Bit Mechanical angle (cts)	NONE	-/-	No
MODE	8	Mode: 0=Idle, 2=Torque, 3=PID, 4=Vel, 5=Trap	0	R/W	No
MOFST	61	Mechanical offset calibration	NONE	R/W	Yes
MOV	47	Max open velocity (cts/ms)	1500	R/W	Yes
MPE	76	Max position error (tbd)	5	R/W	Yes
MT	43	Max torque	4700	R/W	Yes
MV	45	Max velocity (cts/ms)	1500	R/W	Yes
OD	64	Odometer (tbd)	NONE	R/W	Yes
OT	54	32-Bit Open Target	0	R/W	Yes
OT2	55	32-Bit Open Target	NONE	-/-	No
OTEMP	11	Over temperature alarm (tbd)	82	R/W	No
P	48	32-Bit Position. R=Act, W=Cmd	NONE	R/W	Yes
P2	49	32-Bit Position. R=Act, W=Cmd	NONE	-/-	No
PIDX	70	Puck index for torque	NONE	R/W	Yes
POLES	90	Number of magnets on rotor	12	R/W	Yes
PTEMP	10	Peak temperature recorded (tbd)	NONE	R/W	Yes
ROLE	1	P=PRODUCT, R=ROLE: XXXX PPPP XXXX RRRR	NONE	R/W	Yes
SAVE	30	Save command for CAN	NONE	-/W	No
SG	25	Strain gage (tbd)	NONE	R/-	No
SN	2	Serial number	NONE	R/W	Yes
STAT	5	Status: 0=Reset/Monitor, 2=Ready/Main	NONE	R/W	No
T	42	Torque command	0	R/W	No
TACT	106	Tactile sensor array access (special)	0	R/W	No
TACTID	107	Tactile sensor array I2C ID	NONE	R/W	Yes
TEMP	9	Temperature (puck internal)	NONE	R/-	No
TENSO	84	Tension offset (tbd)	NONE	R/W	Yes
TENST	83	Tension total (tbd)	NONE	R/W	Yes
THERM	20	Thermistor (motor) temperature	NONE	R/-	No
TIE	100	Flag to tie inner and outer links	0	R/W	Yes
TSTOP	78	Time until considered stopped	50	R/W	Yes
UPSECS	63	Up seconds in operation (tbd)	NONE	R/W	Yes
V	44	Velocity (cts/ms). R=Act, W=Cmd	0	R/W	No
VALUE	7	Value to poke/peek	NONE	R/W	No
VBUS	21	Bus voltage (V)	NONE	R/-	No
VERS	0	Firmware version	NONE	R/W	No
VLOGIC	23	Logic voltage (tbd)	NONE	R/-	No
X0	34	Gimbals offset 1 (Q4.12 rad)	NONE	R/W	Yes
X1	35	Gimbals offset 2 (Q4.12 rad)	NONE	R/W	Yes
X2	36	Gimbals offset 3 (Q4.12 rad)	NONE	R/W	Yes
X3	37	Gimbals/safety gain 1 (Q4.12 rad/3V)	NONE	R/W	Yes
X4	38	Gimbals/safety gain 2 (Q4.12 rad/3V)	NONE	R/W	Yes
X5	39	Gimbals/safety gain 3 (Q4.12 rad/3V)	NONE	R/W	Yes
X6	40	tbd	NONE	R/W	Yes
X7	41	tbd	NONE	R/W	Yes

Key	Property
0	VERS
1	ROLE
2	SN
3	ID
4	ERROR
5	STAT
6	ADDR
7	VALUE
8	MODE
9	TEMP
10	PTEMP
11	OTEMP
12	BAUD
13	LOCK
14	DIG0
15	DIG1
16	FET0
17	FET1
18	ANA0
19	ANA1
20	THERM
21	VBUS
22	IMOTOR
23	VLOGIC
24	ILOGIC
25	SG
26	GRPA
27	GRPB
28	GRPC
29	CMD
30	SAVE
31	LOAD
32	DEF
33	FIND
34	X0
35	X1
36	X2
37	X3
38	X4
39	X5
40	X6
41	X7
42	T
43	MT
44	V
45	MV
46	MCV
47	MOV
48	P
49	P2
50	DP
51	DP2
52	E
53	E2
54	OT
55	OT2
56	CT
57	CT2
58	M
59	M2
60	DS
61	MOFST
62	IOFST
63	UPSECS
64	OD
65	MDS
66	MECH
67	MECH2
68	CTS
69	CTS2
70	PIDX
71	HSG
72	LSG
73	IVEL
74	IOFF
75	IOFF2
76	MPE
77	HOLD
78	TSTOP
79	KP
80	KD
81	KI
82	ACCEL
83	TENST
84	TENSO
85	JIDX
86	IPNM
87	HALLS
88	HALLH
89	HALLH2
90	POLES
91	IKP
92	IKI
93	IKCOR
94	EN
95	EN2
96	JP
97	JP2
98	JOFST
99	JOFST2
100	TIE
101	ECMAX
102	ECMIN
103	LFLAGS
104	LCTC
105	LCVC
106	TACT
107	TACTID
108	IHIT