Elmo Servo Drives

Information Sheet for Crimson v2.0

Compatible Devices

- Elmo Servo Drives using SimplIQ

Verified Device

- BAS-3/230-3
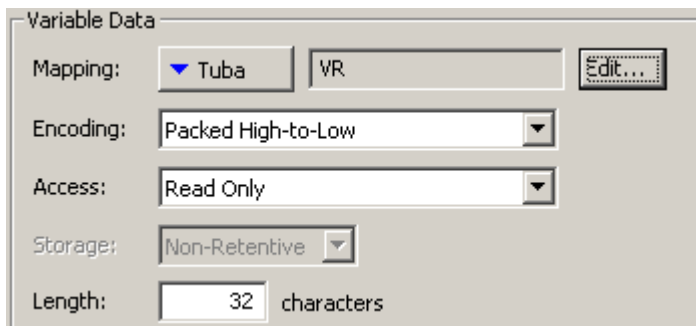
Accessible Data

Command	Description	Type	Notes
--	Motion Commands...	N/A	1
AC	Acceleration	Integer	
BG	Begin motion	Command	6
BT	Begin motion at defined time	Integer	
DC	Deceleration	Integer	
IL	Input logic	Integer	
JV	Speed of jogging motion	Integer	
MO	Motor on/off	Command	7
PA	Absolute position	Integer	
PR	Relative position	Integer	
SD	Stop deceleration	Integer	
SF	Smooth factor for motion command	Integer	
SP	Speed for point-to-point motion	Integer	
ST	Stop motion using deceleration value	Command	6
TC	Torque command	Real	
--	I/O Commands...	N/A	1
AN	Read analog inputs	Real	
IB	Bit-wise digital input	Integer	
IF	Digital input filter	Real	
IP	Read all digital inputs	Integer	
OB	Bit-wise digital output	Integer	
OC	Output Compare	Integer	
OL	Output Logic	Integer	
OP	Set all digital outputs	Integer	
--	Status Commands...	N/A	1
BV	Maximum motor DC voltage	Integer	
DV	Reference desired value	Real	

EC	Error code	Integer	
LC	Current limitation	Integer	
MF	Motor fault	Integer	
MS	Motion status reporting	Integer	
SN	Serial number	Integer	
SR	Numerical	Integer	
TI	Temperature indications array	Integer	
VR	Software (firmware) version	String	8
--	Feedback Commands...	N/A	1
AB	Absolute encoder setting parameters	Integer	
ID	Read active current	Real	
IQ	Read reactive current	Real	
PE	Position error	Integer	
PX	Main encoder position	Integer	
PY	Auxiliary position	Integer	
VE	Velocity error	Integer	
VX	Main encoder velocity	Integer	
VY	Velocity of auxiliary feedback	Integer	
YA	Auxiliary position sensor parameters	Integer	
--	Configuration Commands...	N/A	1
AG	Analog gains array	Real	
AS	Analog input offsets array	Real	
BP	Brake parameter	Integer	
CA	Commutation parameters array	Integer	
CL	Current continuous limitations array	Real	
EF	Encoder filter frequency	Integer	
EM	ECAM parameters	Integer	
ET	Entries for ECAM table	Integer	
FF	Feed forward	Real	
FR	Follower ratio	Real	
HM	Homing and capture mode	Integer	
HY	Auxiliary home and capture mode	Integer	
MC	Maximum peak current	Real	
MP	Motion (PT/PVT) parameters	Integer	
PL	Peak duration and limit	Real	
PM	Profiler mode	Integer	
PT	Position time command	Integer	
PV	Position velocity time command	Integer	
PW	PWM signal parameters	Real	
QP	Position	Integer	
QT	Time	Integer	
QV	Velocity	Integer	
RM	Reference mode (analog en./dis.	Integer	
UM	Unit mode stepper	Integer	
TR	Target radius	Integer	
VH	High reference limit	Integer	
VL	Low reference limit	Integer	
XM	X Modulo	Integer	
YM	Y Modulo	Integer	
--	Control Filter Commands...	N/A	1
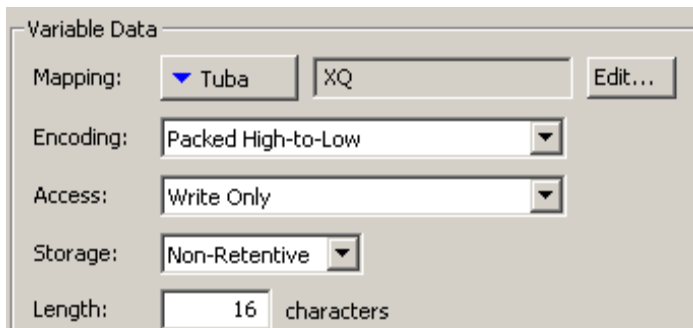
GS	Gain scheduling	Integer	
KGR	Gain scheduled controller Reals	Real	5
KGI	Gain scheduled controller Integers	Integer	5
KI	PID integral terms array	Real	
KP	PID proportional terms array	Real	
KV	Advanced filter for speed loop	Integer	
XA	Extra parameters (more)	Integer	
XP	Extra parameters	Integer	
--	Protection Commands...	N/A	1
ER	Maximum tracking errors	Integer	
HL	Over-speed and position range limit	Integer	
Integer	Low actual feedback limit	Integer	
--	Data Recording Commands...	N/A	1
BH	Get a sample signal as hexadecimal	Integer	
RC	Variables to record	Integer	
RG	Recording gap	Integer	
RL	Record length	Integer	
RP	Recorder parameters	Integer	
Real	Recording on/off	Integer	
RV	Recorded variables	Integer	
--	User Parameters...	N/A	1
HP	Halt program execution	Command	6
KL	Kill motion and stop program	Command	6
MI	Mask interrupt	Integer	
PS	Program status	Integer	
XC	Continue program execution	Command	6
XQ	Execute program	String	8
--	General Commands...	N/A	1
LD	Load parameters from flash memory	Command	6
RS	Reset Metronome	Command	6
SV	Save parameters to flash memory	Command	6
TM	System time	Integer	
TS	Sampling time	Integer	
UF	User float array	Real	
UI	User integer	Integer	
WI	Metronome data	Integer	
WS	Metronome data	Integer	
ZX	Program and auto-tune storage	Integer	
--	Listing Selections		
--	A... through Z…	N/A	2
--	List by Machine Function	N/A	3
--	A – Z (List by Initial Command Letter)	N/A	3
--	List By Keyword	N/A	4

NOTES:

1) These items are headers for listing the selections of various machine functions. They are not selectable.

2) These items (A…, B…, C…, etc.) are headers for listing the selections by the initial letter of the command. They are not selectable.

3) These items select the type of list to be displayed. List by Keyword allows the entry of a string that will display all selections whose descriptions contain that string.

4) List by Keyword will list all commands whose descriptions contain the string that is entered.

5) KGI and KGR use the command KG. The integer range and the real number range have been separated for the convenience of the programmer.

6) These commands execute when the bit is set to 1.

7) MO (Motor On/Off) is a command, but requires a 1 or 0 value.

8) VR and XQ are String items. Set the Properties as shown:

The first 2 XQ label characters must be '##', and be counted in Length. Length must be greater than the "Label" plus those two characters.

Cable Information

RS232 Serial Connection

Elmo Drive	SIGNAL NAME	G3
3	Tx >> Rx	2
6	Rx << Tx	5
5	0V	3/4