

# **Host Command Reference**

*Q and SCL commands for servo and stepper drives*

*Includes RS-232, RS-485,  
Ethernet UDP, Ethernet TCP/IP, EtherNet/IP,  
Modbus RTU and Modbus TCP/IP*



APPLIED MOTION PRODUCTS

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Modbus Register Table for Step Drives				
Applies to Q and IP drives in these product families: ST, STM, SWM, STF				
Register	Access	Data Type	Description	SCL Register
40137	R/W	SHORT	Step Noise Filter [STF only]	
40138	R/W	SHORT	Control Mode (CM) [STF only]	
40139	R/W	SHORT	Power up mode (PM) [STF only]	
40140	R/W	SHORT	Enable Input Use (SI) [STF only]	
40141	R/W	SHORT	Alarm Reset Input Use (AI) [STF only]	
40142	R/W	SHORT	Limit Input Use (DL) [STF only]	
40143	R/W	SHORT	Alarm Output Use (AO) [STF only]	
40144	R/W	SHORT	Brake Output Use (BO) [STF only]	
40145	R/W	SHORT	Motion Output Use (MO) [STF only]	
40146	R/W	SHORT	Anti-resonance filter freq (CF) [STF only]	
40147	R/W	SHORT	Anti-resonance filter gain (CG) [STF only]	
40148	Read Only	SHORT	(reserved)	
40149	R/W	SHORT	Baud Rate (BR) [STF only]	
40150	R/W	SHORT	Comm Protocol [STF-R only]	
40151	R/W	SHORT	RS-485 transmit delay (TD) [STF only]	
40152	Read Only	SHORT	(reserved)	
40153	Read Only	SHORT	(reserved)	
40154	Read Only	SHORT	(reserved)	
40155	Read Only	SHORT	(reserved)	
40156	Read Only	SHORT	(reserved)	
40157	Read Only	SHORT	(reserved)	
40158	Read Only	SHORT	(reserved)	
40159	Read Only	SHORT	(reserved)	
40160	R/W	SHORT	Max Accel (MA) [STF only]	
40161	Read Only	SHORT	(reserved)	
40162	R/W	SHORT	RS-485 address (DA) [STF only]	
40163	Read Only	SHORT	(reserved)	
40164	Read Only	SHORT	(reserved)	
40165	Read Only	SHORT	(reserved)	
40166	Read Only	SHORT	(reserved)	
40167	R/W	SHORT	HOMING_ACCEL1 [STF only]	
40168	R/W	SHORT	[HOMING_ACCEL2] [STF only]	
40169	R/W	SHORT	[HOMING_ACCEL3] [STF only]	
40170	R/W	SHORT	[HOMING_DECEL1] [STF only]	
40171	R/W	SHORT	[HOMING_DECEL2] [STF only]	
40172	R/W	SHORT	[HOMING_DECEL3] [STF only]	
40173	R/W	SHORT	[HOMING_VELOCITY1] [STF only]	

Modbus Register Table for Step Drives				
Applies to Q and IP drives in these product families: ST, STM, SWM, STF				
Register	Access	Data Type	Description	SCL Register
40174	R/W	SHORT	[HOMING_VELOCITY2] [STF only]	
40175	R/W	SHORT	[HOMING_VELOCITY3] [STF only]	
40176	Read Only	SHORT	(reserved)	
40177	Read Only	SHORT	(reserved)	
40178	Read Only	SHORT	(reserved)	
40179	Read Only	SHORT	(reserved)	
40180	Read Only	SHORT	(reserved)	
40181	Read Only	SHORT	(reserved)	
40182	R/W	SHORT	[MASK_ALARM] [STF only]	
40183	R/W	SHORT	[JERK_TIME] [STF only]	
40184	Read Only	SHORT	reserved,	
40185..40186	R/W	LONG	[HOMING_DISTANCE] [STF only]	
40187	Read Only	SHORT	(reserved)	
40188	Read Only	SHORT	(reserved)	
40189	Read Only	SHORT	(reserved)	
40190	Read Only	SHORT	(reserved)	
40191	Read Only	SHORT	(reserved)	
40192	Read Only	SHORT	(reserved)	
40193	Read Only	SHORT	(reserved)	
40194	Read Only	SHORT	(reserved)	
40195	Read Only	SHORT	(reserved)	
40196	Read Only	SHORT	(reserved)	
40197	Read Only	SHORT	(reserved)	
40198	Read Only	SHORT	(reserved)	
40199	Read Only	SHORT	Drive Model ID Number [STF only]	
40200	Read Only	SHORT	Drive Sub Model ID Number [STF only]	
40201	R/W	SHORT	MotorData[OTHER_MOTOR_NAME_1] [STF only]	
40202	R/W	SHORT	MotorData[OTHER_MOTOR_NAME_2] [STF only]	
40203	R/W	SHORT	MotorData[OTHER_MOTOR_NAME_3] [STF only]	
40204	R/W	SHORT	MotorData[OTHER_MOTOR_NAME_4] [STF only]	
40205	R/W	SHORT	MotorData[OTHER_MOTOR_NAME_5] [STF only]	
40206	R/W	SHORT	MotorData[OTHER_MOTOR_NAME_6] [STF only]	

Modbus Register Table for Step Drives				
Applies to Q and IP drives in these product families: ST, STM, SWM, STF				
Register	Access	Data Type	Description	SCL Register
40207	R/W	SHORT	MotorData[OTHER_MOTOR_NAME_7] [STF only]	
40208	R/W	SHORT	MotorData[OTHER_HYPERBOLIC_GAIN] [STF only]	
40209	R/W	SHORT	MotorData[OTHER_HYPERBOLIC_PHASE] [STF only]	
40210	R/W	SHORT	MotorData[OTHER_MAX_CURRENT] [STF only]	
40211	R/W	SHORT	MotorData[OTHER_TORQUE] [STF only]	
40212	R/W	SHORT	MotorData[OTHER_INERTIA] [STF only]	
40213	R/W	SHORT	MotorData[OTHER_RATED_TORQUE_1] [STF only]	
40214	R/W	SHORT	MotorData[OTHER_RATED_TORQUE_2] [STF only]	
40215	R/W	SHORT	MotorData[OTHER_ROTOR_INERTIA_1] [STF only]	
40216	R/W	SHORT	MotorData[OTHER_ROTOR_INERTIA_2] [STF only]	
40217	R/W	SHORT	MotorData[OTHER_MOTOR_VOLTAGE] [STF only]	
40218	R/W	SHORT	MotorData[OTHER_MOTOR_RESISTANCE] [STF only]	
40219	R/W	SHORT	MotorData[OTHER_MOTOR_INDUCTANCE] [STF only]	
40220	Read Only	SHORT	reserved,	
40221	Read Only	SHORT	reserved,	
40222	Read Only	SHORT	reserved,	
40223	Read Only	SHORT	reserved,	
40224	Read Only	SHORT	reserved,	
40225	R/W	SHORT	MotorData[AMP_MOTOR_NAME_1] [STF only]	
40226	R/W	SHORT	MotorData[AMP_MOTOR_NAME_2] [STF only]	
40227	R/W	SHORT	MotorData[AMP_MOTOR_NAME_3] [STF only]	
40228	R/W	SHORT	MotorData[AMP_MOTOR_NAME_4] [STF only]	
40229	R/W	SHORT	MotorData[AMP_MOTOR_NAME_5] [STF only]	

Modbus Register Table for Step Drives				
Applies to Q and IP drives in these product families: ST, STM, SWM, STF				
Register	Access	Data Type	Description	SCL Register
40230	R/W	SHORT	MotorData[AMP_MOTOR_NAME_6] [STF only]	
40231	R/W	SHORT	MotorData[AMP_MOTOR_NAME_7] [STF only]	
40232	R/W	SHORT	MotorData[AMP_HYPERBOLIC_GAIN] [STF only]	
40233	R/W	SHORT	MotorData[AMP_HYPERBOLIC_PHASE] [STF only]	
40234	R/W	SHORT	MotorData[AMP_MAX_CURRENT] [STF only]	
40235	R/W	SHORT	MotorData[AMP_TORQUE] [STF only]	
40236	R/W	SHORT	MotorData[AMP_INERTIA] [STF only]	
40237	R/W	SHORT	MotorData[AMP_RATED_TORQUE_1] [STF only]	
40238	R/W	SHORT	MotorData[AMP_RATED_TORQUE_2] [STF only]	
40239	R/W	SHORT	MotorData[AMP_ROTOR_INERTIA_1] [STF only]	
40240	R/W	SHORT	MotorData[AMP_ROTOR_INERTIA_2] [STF only]	
40241	R/W	SHORT	MotorData[AMP_MOTOR_VOLTAGE] [STF only]	
40242	R/W	SHORT	MotorData[AMP_MOTOR_RESISTANCE] [STF only]	
40243	R/W	SHORT	MotorData[AMP_MOTOR_INDUCTANCE] [STF only]	
40244	Read Only	SHORT	reserved,	
40245	Read Only	SHORT	reserved,	
40246	Read Only	SHORT	reserved,	
40247	Read Only	SHORT	reserved,	
40248	Read Only	SHORT	reserved,	
40249	Read Only	SHORT	reserved,	
40250	Read Only	SHORT	reserved,	

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<b>Modbus Register Table for Servo Drives</b>				
<b>Applies to Q and IP products from these families: SV200, MDX</b>				
<b>Register</b>	<b>Access</b>	<b>Data Type</b>	<b>Description</b>	<b>SCL Register</b>
40001	Read Only	SHORT	Alarm Code (AL)	f
40002	Read Only	SHORT	Status Code (SC)	s
40003	Read Only	SHORT	Output Status (Only for SV200)	y
40004	Read Only	SHORT	Input Status	i
40005..6	Read Only	LONG	Encoder Position (IE, EP)	e
40007..8	Read Only	LONG	Immediate Absolute Position	l
40009..10	Write	LONG	Absolute Position Command	P
40011	Read Only	SHORT	Immediate Actual Velocity (IVO)	v
40012	Read Only	SHORT	Immediate Target Velocity (IV1)	w
40013	Read Only	SHORT	Immediate Drive Temperature (IT)	t
40014	Read Only	SHORT	Immediate Bus Voltage (IU)	u
40015..16	Read Only	LONG	Immediate Position Error (IX)	x
40017	Read Only	SHORT	Immediate Analog Input Value (IA)	a
40018	Read Only	SHORT	Q Program Line Number	b
40019	Read Only	SHORT	Immediate Current Command (IC)	c
40020..21	Read Only	LONG	Relative Distance (ID)	d
40022..23	Read Only	LONG	Sensor Position	g
40024	Read Only	SHORT	Condition Code	h
40025	Read Only	SHORT	Analog Input 1 (IA1)	j

Modbus Register Table for Servo Drives				
Applies to Q and IP products from these families: SV200, MDX				
Register	Access	Data Type	Description	SCL Register
40026	Read Only	SHORT	Analog Input 2 (IA2)	k
40027	Read Only	SHORT	Command Mode (CM)	m
40028	R/W	SHORT	Point-to-Point Acceleration (AC)	A
40029	R/W	SHORT	Point-to-Point Deceleration (DE)	B
40030	R/W	SHORT	Velocity (VE)	V
40031..32	R/W	LONG	Point-to-Point Distance (DI)	D
40033..34	R/W	LONG	Change Distance (DC)	C
40035	R/W	SHORT	Change Velocity (VC)	U
40036	Read Only	SHORT	Velocity Move State	n
40037	Read Only	SHORT	Point-to-Point Move State	o
40038	Read Only	SHORT	Q Program Segment Number	p
40039	Read Only	SHORT	reserved	r
40040	Read Only	SHORT	Phase Error	z
40041..42	R/W	LONG	Position Offset	E
40043	R/W	SHORT	Miscellaneous Flags	F
40044	R/W	SHORT	Current Command (GC)	G
40045..46	R/W	LONG	Input Counter	I
40047	R/W	SHORT	Jog Accel (JA)	
40048	R/W	SHORT	Jog Decel (JL)	
40049	R/W	SHORT	Jog Velocity (JS)	J
40050	R/W	SHORT	Max Velocity (VM)	
40051	R/W	SHORT	Running Current (CC) for stepper, Continuous Current for servo	N

<b>Modbus Register Table for Servo Drives</b>				
<b>Applies to Q and IP products from these families: SV200, MDX</b>				
<b>Register</b>	<b>Access</b>	<b>Data Type</b>	<b>Description</b>	<b>SCL Register</b>
40052	R/W	SHORT	Idle Current (CI) for stepper Peak Current (CP) for servo	O
40053	Read Only	SHORT	reserved	R
40054..40055	R/W	LONG	Pulse Counter	S
40056	R/W	SHORT	Analog Position Gain (AP)	X
40057	R/W	SHORT	Analog Threshold (AT)	Y
40058	R/W	SHORT	Analog Offset (AV)	Z
40059..60	R/W	LONG	Accumulator	0
40061..62	R/W	LONG	User Defined Register	1
40063..64	R/W	LONG	User Defined Register	2
40065..66	R/W	LONG	User Defined Register	3
40067..68	R/W	LONG	User Defined Register	4
40069..70	R/W	LONG	User Defined Register	5
40071..72	R/W	LONG	User Defined Register	6
40073..74	R/W	LONG	User Defined Register	7
40075..76	R/W	LONG	User Defined Register	8
40077..78	R/W	LONG	User Defined Register	9
40079..80	R/W	LONG	User Defined Register	:
40081..82	R/W	LONG	User Defined Register	;
40083..84	R/W	LONG	User Defined Register	<
40085..86	R/W	LONG	User Defined Register	=

<b>Modbus Register Table for Servo Drives</b>				
<b>Applies to Q and IP products from these families: SV200, MDX</b>				
<b>Register</b>	<b>Access</b>	<b>Data Type</b>	<b>Description</b>	<b>SCL Register</b>
40087..88	R/W	LONG	User Defined Register	>
40089..90	R/W	LONG	User Defined Register	?
40091..92	R/W	LONG	User Defined Register	@
40093..94	R/W	LONG	User Defined Register	[
40095..96	R/W	LONG	User Defined Register	\
40097..98	R/W	LONG	User Defined Register	]
40099..100	R/W	LONG	User Defined Register	^
40101..102	R/W	LONG	User Defined Register	-
40103..104	R/W	LONG	User Defined Register	`
40105	R/W	SHORT	Brake Release Delay	
40106	R/W	SHORT	Brake Engage Delay	
40107	Read Only	SHORT	reserved	
40108	Read Only	SHORT	reserved	
40109	Read Only	SHORT	DSP firmware version	
40110	R/W	SHORT	Analog Filter Gain	
40111	Read Only	SHORT	(reserved)	
40112	Read Only	SHORT	Alarm Code High bits	
40113	R/W	SHORT	Jog Change Speed1 (JC1) (SV200 only)	
40114	R/W	SHORT	Jog Change Speed2 (JC2) (SV200 only)	

<b>Modbus Register Table for Servo Drives</b>				
<b>Applies to Q and IP products from these families: SV200, MDX</b>				
<b>Register</b>	<b>Access</b>	<b>Data Type</b>	<b>Description</b>	<b>SCL Register</b>
40115	R/W	SHORT	Jog Change Speed3 (JC3) (SV200 only)	
40116	R/W	SHORT	Jog Change Speed4 (JC4) (SV200 only)	
40117	R/W	SHORT	Jog Change Speed5 (JC5) (SV200 only)	
40118	R/W	SHORT	Jog Change Speed6 (JC6) (SV200 only)	
40119	R/W	SHORT	Jog Change Speed7 (JC7) (SV200 only)	
40120	R/W	SHORT	Jog Change Speed8 (JC8) (SV200 only)	
40121	R/W	SHORT	X9 Input Filter	
40122	R/W	SHORT	X10 Input Filter	
40123	R/W	SHORT	X11 Input Filter	
40124	R/W	SHORT	X12 Input Filter	
40125	R/W	SHORT	Command Opcode	
40126	R/W	SHORT	Parameter 1	
40127	R/W	SHORT	Parameter 2	
40128	R/W	SHORT	Parameter 3	
40129	R/W	SHORT	Parameter 4	
40130	R/W	SHORT	Parameter 5	
40131	R/W	SHORT	Global Gain (Jerk Time on MDX)	
40132	R/W	SHORT	Global Gain1 (VFF gain on MDX)	
40133	R/W	SHORT	Position Loop Proportional Gain (KF) (Position Gain on MDX)	

Modbus Register Table for Servo Drives				
Applies to Q and IP products from these families: SV200, MDX				
Register	Access	Data Type	Description	SCL Register
40134	R/W	SHORT	Differential Gain (KD) aka "Damping" Gain	
40135	R/W	SHORT	Velocity Feedback Gain (KV)	
40136	R/W	SHORT	Integral Gain (KI)	
40137	R/W	SHORT	Inertia Feedforward Gain (KK)	
40138	R/W	SHORT	Jerk Filter (KJ) "Smoothing" Filter	
40139	R/W	SHORT	Velocity Loop Proportional Gain (VP)	
40140	R/W	SHORT	Velocity Loop Integral Gain (VI)	
40141	R/W	SHORT	Damping Filter Gain (KE)	
40142	R/W	SHORT	Current Filter Gain (KC)	
40143	R/W	SHORT	Control Mode (CM)	
40144	R/W	SHORT	Control Mode 1 (SV200 only)	
40145	R/W	SHORT	Power-up Mode (PM)	
40146	R/W	SHORT	Jog Mode (JM)	
40147	R/W	SHORT	Hard-Stop Current Limit (HC)	
40148	R/W	SHORT	Max Acceleration (AM)	
40149	Read Only	SHORT	Encoder Resolution (quad counts divided by motor poles)	
40150	Read Only	SHORT	(Reserved)	

<b>Modbus Register Table for Servo Drives</b>				
<b>Applies to Q and IP products from these families: SV200, MDX</b>				
<b>Register</b>	<b>Access</b>	<b>Data Type</b>	<b>Description</b>	<b>SCL Register</b>
40151	Read Only	SHORT	Electronic Gearing value (EG) (aka Step Resolution)	
40152	R/W	SHORT	Electronic Ratio Numerator (SV200 only)	
40153	R/W	SHORT	Electronic Ratio Denominator (SV200 only)	
40154	R/W	SHORT	Step Input Pulse Type (PT)	
40155	R/W	SHORT	Position Fault limit (PF)	
40156	R/W	SHORT	In-Position Count	
40157	R/W	SHORT	Position Error Range	
40158	R/W	SHORT	In-Range Count	
40159	R/W	SHORT	Pulse Input Complete Time	
40160	R/W	SHORT	Analog Velocity Gain	
40161	R/W	SHORT	Analog Torque Gain	
40162	R/W	SHORT	Analog Offset 1	
40163	R/W	SHORT	Analog Offset 2	
40164	R/W	SHORT	Analog Type	
40165	R/W	SHORT	Analog Deadband 1	
40166	R/W	SHORT	Analog Deadband 2	
40167	R/W	SHORT	Differential Analog Deadband	
40168	R/W	SHORT	Analog Function	
40169	R/W	SHORT	Servo Enable Input Usage (SI)	
40170	R/W	SHORT	Alarm Reset Input (AI)	

<b>Modbus Register Table for Servo Drives</b>				
<b>Applies to Q and IP products from these families: SV200, MDX</b>				
<b>Register</b>	<b>Access</b>	<b>Data Type</b>	<b>Description</b>	<b>SCL Register</b>
40171	R/W	SHORT	Define Limits Input (DL)	
40172	R/W	SHORT	Motion Input (SV200 only)	
40173	R/W	SHORT	Alarm Output(AO)	
40174	R/W	SHORT	Brake Output (BO)	
40175	R/W	SHORT	Motion Output (MO)	
40176	Read Only	SHORT	(Reserved)	
40177	R/W	SHORT	Communication Protocol (PR)	
40178	R/W	SHORT	Transmit Delay (TD)	
40179	R/W	SHORT	Baud Rate (BR)	
40180	R/W	SHORT	Communication Address (DA represented as ASCII value)	
40181	R/W	SHORT	Velocity Reached Value	
40182	R/W	SHORT	Tach-out Count setting (SV200 only)	
40183	R/W	SHORT	Torque Reached Value (Units: 0.01A)	
40184	R/W	SHORT	Front Panel Parameters Lock (Torque limit on MDX)	
40185	R/W	SHORT	Front Panel Default Display setting (SV200 only)	
40186	R/W	SHORT	Mask Alarm setting	
40187	R/W	SHORT	Homing Acceleration 1	

<b>Modbus Register Table for Servo Drives</b>				
<b>Applies to Q and IP products from these families: SV200, MDX</b>				
<b>Register</b>	<b>Access</b>	<b>Data Type</b>	<b>Description</b>	<b>SCL Register</b>
40188	R/W	SHORT	Homing Acceleration 2	
40189	R/W	SHORT	Homing Acceleration 3	
40190	R/W	SHORT	Homing Deceleration 1	
40191	R/W	SHORT	Homing Deceleration 2	
40192	R/W	SHORT	Homing Deceleration 3	
40193	R/W	SHORT	Homing Velocity 1	
40194	R/W	SHORT	Homing Velocity 2	
40195	R/W	SHORT	Homing Velocity 3	
40196	R/W	SHORT	Clamp Resistance (SV200 only)	
40197	R/W	SHORT	Clamp Count (SV200 only)	
40198	R/W	SHORT	Clamp time (SV200 only)	
40199	Read Only	SHORT	Drive Model ID Number	
40200	Read Only	SHORT	Drive Sub Model ID Number	



Modbus Register Table for StepSERVO Drives				
Applies to Q and IP products from these families: SSM, TSM, TXM				
Register	Access	Data Type	Description	SCL Register
40001	Read Only	SHORT	Alarm Code (AL)	f
40002	Read Only	SHORT	Status Code (SC)	s
40003	Read Only	SHORT	reserved	y
40004	Read Only	SHORT	Input Status	i
40005..6	Read Only	LONG	Encoder Position (IE, EP)	e
40007..8	Read Only	LONG	Immediate Absolute Position	l
40009..10	Write	LONG	Absolute Position Command	P
40011	Read Only	SHORT	Immediate Actual Velocity (IVO)	v
40012	Read Only	SHORT	Immediate Target Velocity (IV1)	w
40013	Read Only	SHORT	Immediate Drive Temperature (IT)	t
40014	Read Only	SHORT	Immediate Bus Voltage (IU)	u
40015..16	Read Only	LONG	Immediate Position Error (IX)	x
40017	Read Only	SHORT	Immediate Analog Input Value (IA)	a
40018	Read Only	SHORT	Q Program Line Number	b
40019	Read Only	SHORT	Immediate Current Command (IC)	c
40020..21	Read Only	LONG	Relative Distance (ID)	d
40022..23	Read Only	LONG	Sensor Position	g
40024	Read Only	SHORT	Condition Code	h
40025	Read Only	SHORT	Analog Input 1 (IA1)	j

Modbus Register Table for StepSERVO Drives				
Applies to Q and IP products from these families: SSM, TSM, TXM				
Register	Access	Data Type	Description	SCL Register
40026	Read Only	SHORT	Analog Input 2 (IA2)	k
40027	Read Only	SHORT	Command Mode (CM)	m
40028	R/W	SHORT	Point-to-Point Acceleration (AC)	A
40029	R/W	SHORT	Point-to-Point Deceleration (DE)	B
40030	R/W	SHORT	Velocity (VE)	V
40031..32	R/W	LONG	Point-to-Point Distance (DI)	D
40033..34	R/W	LONG	Change Distance (DC)	C
40035	R/W	SHORT	Change Velocity (VC)	U
40036	Read Only	SHORT	Velocity Move State	n
40037	Read Only	SHORT	Point-to-Point Move State	o
40038	Read Only	SHORT	Q Program Segment Number	p
40039	Read Only	SHORT	reserved	r
40040	Read Only	SHORT	Phase Error	z
40041..42	R/W	LONG	Position Offset	E
40043	R/W	SHORT	Miscellaneous Flags	F
40044	R/W	SHORT	Current Command (GC)	G
40045..46	R/W	LONG	Input Counter	I
40047	R/W	SHORT	Jog Accel (JA)	
40048	R/W	SHORT	Jog Decel (JL)	
40049	R/W	SHORT	Jog Velocity (JS)	J
40050	R/W	SHORT	Max Velocity (VM)	
40051	R/W	SHORT	Continuous Current (CC)	N
40052	R/W	SHORT	Peak Current (CP)	O

Modbus Register Table for StepSERVO Drives				
Applies to Q and IP products from these families: SSM, TSM, TXM				
Register	Access	Data Type	Description	SCL Register
40053	R/W	SHORT	Steps per Revolution (EG) / 2	R
40054..40055	R/W	LONG	Pulse Counter	S
40056	R/W	SHORT	Analog Position Gain (AP)	X
40057	R/W	SHORT	Analog Threshold (AT)	Y
40058	R/W	SHORT	Analog Offset (AV)	Z
40059..60	R/W	LONG	Accumulator	0
40061..62	R/W	LONG	User Defined Register	1
40063..64	R/W	LONG	User Defined Register	2
40065..66	R/W	LONG	User Defined Register	3
40067..68	R/W	LONG	User Defined Register	4
40069..70	R/W	LONG	User Defined Register	5
40071..72	R/W	LONG	User Defined Register	6
40073..74	R/W	LONG	User Defined Register	7
40075..76	R/W	LONG	User Defined Register	8
40077..78	R/W	LONG	User Defined Register	9
40079..80	R/W	LONG	User Defined Register	:
40081..82	R/W	LONG	User Defined Register	;
40083..84	R/W	LONG	User Defined Register	<
40085..86	R/W	LONG	User Defined Register	=
40087..88	R/W	LONG	User Defined Register	>

Modbus Register Table for StepSERVO Drives				
Applies to Q and IP products from these families: SSM, TSM, TXM				
Register	Access	Data Type	Description	SCL Register
40089..90	R/W	LONG	User Defined Register	?
40091..92	R/W	LONG	User Defined Register	@
40093..94	R/W	LONG	User Defined Register	[
40095..96	R/W	LONG	User Defined Register	\
40097..98	R/W	LONG	User Defined Register	]
40099..100	R/W	LONG	User Defined Register	^
40101..102	R/W	LONG	User Defined Register	-
40103..104	R/W	LONG	User Defined Register	-
40105	R/W	SHORT	Brake Release Delay	
40106	R/W	SHORT	Brake Engage Delay	
40107	Read Only	SHORT	reserved	
40108	Read Only	SHORT	reserved	
40109	Read Only	SHORT	DSP firmware version (reserved on TSM11)	
40110	R/W	SHORT	Analog Filter Gain	
40111	Read Only	SHORT	(reserved)	
40112	Read Only	SHORT	(reserved)	
40113	Read Only	SHORT	(reserved)	
40114	Read Only	SHORT	(reserved)	
40115	Read Only	SHORT	(reserved)	
40116	Read Only	SHORT	(reserved)	
40117	Read Only	SHORT	(reserved)	
40118	Read Only	SHORT	(reserved)	
40119	Read Only	SHORT	(reserved)	
40120	Read Only	SHORT	(reserved)	

Modbus Register Table for StepSERVO Drives				
Applies to Q and IP products from these families: SSM, TSM, TXM				
Register	Access	Data Type	Description	SCL Register
40121	R/W	SHORT	X5 Input Filter (reserved on TSM11)	
40122	R/W	SHORT	X6 Input Filter (reserved on TSM11)	
40123	R/W	SHORT	X7 Input Filter (reserved on TSM11)	
40124	R/W	SHORT	X8 Input Filter (reserved on TSM11)	
40125	R/W	SHORT	Command Opcode	
40126	R/W	SHORT	Parameter 1	
40127	R/W	SHORT	Parameter 2	
40128	R/W	SHORT	Parameter 3	
40129	R/W	SHORT	Parameter 4	
40130	R/W	SHORT	Parameter 5	
40131	Read Only	SHORT	(reserved)	
40132	Read Only	SHORT	(reserved)	
40133	R/W	SHORT	Step Smoothing filter freq (SF) (reserved on TSM11)	
40134	Read Only	SHORT	reserved	
40135	Read Only	SHORT	reserved	
40136	R/W	SHORT	Step Input Pulse Type (PT) (reserved on TSM11)	
40137	Read Only	SHORT	reserved	
40138	R/W	SHORT	Control Mode (CM) (reserved on TSM11)	
40139	R/W	SHORT	Power up mode (PM) (reserved on TSM11)	

Modbus Register Table for StepSERVO Drives				
Applies to Q and IP products from these families: SSM, TSM, TXM				
Register	Access	Data Type	Description	SCL Register
40140	R/W	SHORT	Enable Input Use (SI) [reserved on TSM11]	
40141	R/W	SHORT	Alarm Reset Input Use (AI) [reserved on TSM11]	
40142	R/W	SHORT	Limit Input Use (DL) [reserved on TSM11]	
40143	R/W	SHORT	Alarm Output Use (AO) [reserved on TSM11]	
40144	R/W	SHORT	Brake Output Use (BO) [reserved on TSM11]	
40145	R/W	SHORT	Motion Output Use (MO) [reserved on TSM11]	
40146	Read Only	SHORT	reserved	
40147	Read Only	SHORT	reserved	
40148	Read Only	SHORT	reserved	
40149	R/W	SHORT	Baud Rate (BR) [reserved on TSM11]	
40150	R/W	SHORT	Comm Protocol (PR) [reserved on TSM11]	
40151	R/W	SHORT	Comm Transmit Delay (TD) [reserved on TSM11]	
40152	Read Only	SHORT	reserved	
40153	R/W	SHORT	[POSITION_GAIN] [reserved on TSM11]	

Modbus Register Table for StepSERVO Drives				
Applies to Q and IP products from these families: SSM, TSM, TXM				
Register	Access	Data Type	Description	SCL Register
40154	R/W	SHORT	[DAMPING_GAIN] [reserved on TSM11]	
40155	R/W	SHORT	[DAMPING_FILTER_GAIN] [reserved on TSM11]	
40156	R/W	SHORT	[VELOCITY_MODE_GAIN] [reserved on TSM11]	
40157	R/W	SHORT	[VELOCITY_MODE_INTEG_GAIN]	
40158	R/W	SHORT	[INERTIA_FF_GAIN] [reserved on TSM11]	
40159	R/W	SHORT	[PID_FILTER_GAIN] [reserved on TSM11]	
40160	R/W	SHORT	[MAX_ACCEL] [reserved on TSM11]	
40161	R/W	SHORT	[POSITION_FAULT] [reserved on TSM11]	
40162	R/W	SHORT	[ADDRESS] [reserved on TSM11]	
40163	R/W	SHORT	[ANALOG_VELOCITY_GAIN] [reserved on TSM11]	
40164	R/W	SHORT	[CHANGE_VM_VELOCITY] [reserved on TSM11]	
40165	R/W	SHORT	[JOG_MODE] [reserved on TSM11]	

Modbus Register Table for StepSERVO Drives				
Applies to Q and IP products from these families: SSM, TSM, TXM				
Register	Access	Data Type	Description	SCL Register
40166	R/W	SHORT	[ANALOG_CURRENT_GAIN] [reserved on TSM11]	
40167	R/W	SHORT	[HOMING_ACCEL1] [reserved on TSM11]	
40168	R/W	SHORT	[HOMING_ACCEL2] [reserved on TSM11]	
40169	R/W	SHORT	[HOMING_ACCEL3] [reserved on TSM11]	
40170	R/W	SHORT	[HOMING_DECEL1] [reserved on TSM11]	
40171	R/W	SHORT	[HOMING_DECEL2] [reserved on TSM11]	
40172	R/W	SHORT	[HOMING_DECEL3] [reserved on TSM11]	
40173	R/W	SHORT	[HOMING_VELOCITY1] [reserved on TSM11]	
40174	R/W	SHORT	[HOMING_VELOCITY2] [reserved on TSM11]	
40175	R/W	SHORT	[HOMING_VELOCITY3] [reserved on TSM11]	

Modbus Register Table for StepSERVO Drives				
Applies to Q and IP products from these families: SSM, TSM, TXM				
Register	Access	Data Type	Description	SCL Register
40176	R/W	SHORT	[HARDSTOP_CURRENT_LIMIT] [reserved on TSM11]	
40177	R/W	SHORT	[STEP_COMPLETE_CHECK_PER] [reserved on TSM11]	
40178	R/W	SHORT	[TACH_OUTPUT] [reserved on TSM11]	
40179	R/W	SHORT	[IN_POSITION_COUNT] [reserved on TSM11]	
40180	R/W	SHORT	[CURRENT_D_GAIN] [reserved on TSM11]	
40181	R/W	SHORT	[PHASE_ADVANCE] [reserved on TSM11]	
40182	R/W	SHORT	[MASK_ALARM] [reserved on TSM11]	
40183	Read Only	SHORT	reserved	
40184	Read Only	SHORT	reserved	
40185	Read Only	SHORT	reserved	
40186	Read Only	SHORT	reserved	
40187	Read Only	SHORT	reserved	
40188	Read Only	SHORT	reserved	
40189	Read Only	SHORT	reserved	
40190	Read Only	SHORT	reserved	
40191	Read Only	SHORT	reserved	
40192	Read Only	SHORT	reserved	
40193	Read Only	SHORT	reserved	
40194	Read Only	SHORT	reserved	
40195	Read Only	SHORT	reserved	
40196	Read Only	SHORT	reserved	

<b>Modbus Register Table for StepSERVO Drives</b>				
<b>Applies to Q and IP products from these families: SSM, TSM, TXM</b>				
Register	Access	Data Type	Description	SCL Register
40197	Read Only	SHORT	reserved	
40198	Read Only	SHORT	reserved	
40199	Read Only	SHORT	Drive Model ID Number [reserved on TSM11]	
40200	Read Only	SHORT	Drive Sub Model ID Number [reserved on TSM11]	

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