

Neuromeka CORE complete SDO object list

Table 1. Original function object list

Object-index (Hex)	Sub-index (Hex)	Name	Type	Attribute	Description
1000	0	Device type	UINT32	RO	
1001	0	Error register	UINT8	RO	
1008	0	Device name	STRING	RO	
1009	0	Hardware version	STRING	RO	
1018		Identity			
	0	SubIndex 000	UINT8	RO	0x89A (Neuromeka VID) 0x30000000
	1	Vendor ID	UINT32	RO	
	2	Product code	UINT32	RO	
	3	Revision	UINT32	RO	
	4	Serial number	UINT32	RO	
10F1		Error Settings			
	0	SubIndex 000	UINT8	RO	
	1	Local Error Reaction	UINT32	RW	
	2	Sync Error Counter Limit	UINT16	RW	
1600		Drive RxPDO			Default RxPDO
	0	SubIndex 000	UINT8	RW	
	1	Control Word	UINT32	RW	
	2	Target Position	UINT32	RW	
	3	Target Velocity	UINT32	RW	
	4	Target Torque	UINT32	RW	
	5	Mode Of Operation	UINT32	RW	
1601		csp RxPDO			Alt. RxPDO (unused)
	0	SubIndex 000	UINT8	RW	
	1	Control Word	UINT32	RW	
	2	Target Position	UINT32	RW	
1602		csv RxPDO			Alt. RxPDO (unused)
	0	SubIndex 000	UINT8	RW	
	1	Control Word	UINT32	RW	
	2	Mapping Entry 2	UINT32	RW	

1A00		Drive TxPDO			Default TxPDO
	0	SubIndex 000	UINT8	RW	
	1	Status Word	UINT32	RW	
	2	Position Actual Value	UINT32	RW	
	3	Velocity Actual Value	UINT32	RW	
	4	Torque Actual Value	UINT32	RW	
	5	Mode Of Operation Display	UINT32	RW	
1A01		csp TxPDO			Alt. TxPDO (unused)
	0	SubIndex 000	UINT8	RW	
	1	Status Word	UINT32	RW	
	2	Position Actual Value	UINT32	RW	
1A02		csv TxPDO			Alt. TxPDO (unused)
	0	SubIndex 000	UINT8	RW	
	1	Status Word	UINT32	RW	
	2	Mapping Entry 2	UINT32	RW	
1C00		Sync manager type			
	0	SubIndex 000	UINT8	RO	
	1	SubIndex 001	UINT8	RO	
	2	SubIndex 002	UINT8	RO	
	3	SubIndex 003	UINT8	RO	
	4	SubIndex 004	UINT8	RO	
1C12		Sync Manager 2 PDO			
	0	Assignment	UINT8	RO	
	1	SubIndex 000 SubIndex 001	UINT16	RO	
1C13		Sync Manager 3 PDO			
	0	Assignment	UINT8	RO	
	1	SubIndex 000 SubIndex 001	UINT16	RO	

1C32		SM output parameter			
	0	SubIndex 000	UINT8	RO	
	1	Synchronization Type	UINT16	RO	
	2	Cycle Time	UINT32	RO	
	3	SubIndex 003			
	4	Synchronization	Types	UINT16	RO
	5	supported		UINT32	RO
	6	Minimum Cycle Time		UINT32	RO
	7	Calc and Copy Time			
	8	SubIndex 007	UINT16	RW	
	9	Get Cycle Time	UINT32	RO	
	A	Delay Time	UINT32	RW	
	B	Sync0 Cycle Time	UINT16	RO	
	C	SM-Event Missed	UINT16	RO	
	D	Cycle Time Too Small			
	E	Shift Time Too Short			
	F	SubIndex 014			
	10	SubIndex 015			
	11	SubIndex 016			
	12	SubIndex 017			
	20	SubIndex 018	BOOL	RO	
		Sync Error			

1C33		SM input parameter			
	0	SubIndex 000	UINT8	RO	
	1	Synchronization Type	UINT16	RO	
	2	Cycle Time	UINT32	RO	
	3	SubIndex 003			
	4	Synchronization Types	UINT16	RO	
	5	supported	UINT32	RO	
	6	Minimum Cycle Time	UINT32	RO	
	7	Calc and Copy Time			
	8	SubIndex 007	UINT16	RW	
	9	Get Cycle Time	UINT32	RO	
	A	Delay Time	UINT32	RW	
	B	Sync0 Cycle Time	UINT16	RO	
	C	SM-Event Missed	UINT16	RO	
	D	Cycle Time Too Small			
	E	Shift Time Too Short			
	F	SubIndex 014			
	10	SubIndex 015			
	11	SubIndex 016			
	12	SubIndex 017			
	20	SubIndex 018	BOOL	RO	
		Sync Error			
603F	0	error_code	UINT16	RO	Driver error code
6040	0	controlword	UINT16	RW	
6041	0	statusword	UINT16	RO	
6060	0	modes_of_operation	INT8	RW	
6061	0	modes_of_operation_display	INT8	RO	
6062	0	position_demand_value	INT32	RO	
6063	0	position_actual_internal_value	INT32	RO	
6064	0	position_actual_value	INT32	RO	Actual position (cnt)
6071	0	target_torque	INT16	RW	Target torque (cnt)
6072	0	max_torque	UINT16	RW	Maximum torque (cnt)
6073	0	max_current	UINT16	RW	
607A	0	target_position	INT32	RW	
6080	0	max_motor_speed	UINT32	RW	Maximum speed (rpm)
60FF	0	target_velocity	INT32	RW	

60FD	0	digital_inputs	UINT32	RO	
60FE		digital_outputs			
	0	SubIndex 000	UINT8	RO	
	1	SubIndex 001	UINT32	RW	
	2	SubIndex 002	UINT32	RW	
6066	0	following_error_time_out	UINT16	RW	
6069	0	velocity_sensor_actual_value	INT32	RO	
606B	0	velocity_demand_value	INT32	RO	
606C	0	velocity_actual_value	INT32	RO	Actual velocity (cnt/s)
606F	0	velocity_threshold	UINT16	RW	
6070	0	velocity_threshold_time	UINT16	RW	
6074	0	torque_demand	INT16	RO	
6075	0	motorRatedCurrent	UINT32	RW	
6076	0	motorRatedTorque	UINT32	RW	
6077	0	torque_actual_value	INT16	RO	Actual torque (cnt)
6078	0	current_actual_value	INT16	RO	
607E	0	polarity	UINT8	RW	
60B2	0	torque_offset	INT16	RW	
60BB	0	touch_probe_pos_1_neg_value	INT32	RO	

Table 2. Alternative function object list

Object-index (Hex)	Sub-index (Hex)	Name	Type	Attribute	Alternative-functions
6065	0	following_error_window	UINT32	RW	Encoder error count
606A	0	sensor_selection_code	INT16	RW	Encoder CRC count
607C	0	home_offset	INT32	RW	Driver Temperature C
608F	0	position_encoder_resolution SubIndex 000	UINT8	RO	Commutation data read (Internal debug only)
	1	SubIndex 001	UINT32	RW	
	2	SubIndex 002	UINT32	RW	
6090	0	velocity_encoder_resolution SubIndex 000	UINT8	RO	Indirect control commands via SDO (Internal use only)
	1	SubIndex 001	UINT32	RW	
	2	SubIndex 002	UINT32	RW	
6091	0	gear_ratio SubIndex 000	UINT8	RO	Internal PI controllers gains (follow guideline)
	1	SubIndex 001	UINT32	RW	
	2	SubIndex 002	UINT32	RW	
6092	0	feed_constant SubIndex 000	UINT8	RO	Commutation data read (Internal debug only)
	1	SubIndex 001	UINT32	RW	
	2	SubIndex 002	UINT32	RW	
6098	0	homing_method	INT8	RW	Calibration control
6099	0	homing_speed SubIndex 000	UINT8	RO	Commutation data read (Internal debug only)
	1	SubIndex 001	UINT32	RW	
	2	SubIndex 002	UINT32	RW	
609A	0	homing_acceleration	UINT32	RW	Driver Temperature A
60B1	0	velocity_offset	INT32	RW	Driver Temperature B
60B8	0	touch_probe_function	UINT16	RW	Controller debug (Internal use only)
60B9	0	touch_probe_status	UINT16	RO	Controller debug (Internal use only)
60BA	0	touch_probe_pos_1_pos_value	INT32	RO	Calibration control