Table of the CVs (Configuration Variables)

CV	Description	Range	Default
1	**Address**	DCC 1-127 Mot 1-80	3
2	**Minimal speed**	1-63	3
3	**Acceleration** The value per increment is 5ms for a speed change of 1 For an internal speed setting of 200 (CV 5=50 or CV 94=200) the acceleration will be 1 second	1-63	2
4	**Deceleration** (same factor as CV 3)	1-63	2
5	**Maximal speed** (must be greater than CV 2)	1-63	48
6	**Intermediate speed** (must be greater than CV 2 and lesser than CV 5)	1-63	24
7	**Version number** (The used controller can be updated.)	-	different
8	**Manufacturer ID**	-	85
17 18	**Extended address** 17 = high byte / 18 = low byte	1-9999 192-231 / 0-255	2000 199 / 208
19	**Consist Address** (doubleheading) 0 = no consisting if bit 7=1 direction inversion will occur, desired CADR + 128 = direction inversion	1-127	0
29	**Configuration per DCC-specification** **Value** Bit 0=0 Normal direction 0 * Bit 0=1 Inverted direction 1 Bit 1=0 14 Speed steps 0 Bit 1=1 28 Speed steps 2 * Bit 2=0 Digital operation only 0 Bit 2=1 automatic analog-/digital recognition 4 * Bit 3 n/a - Bit 4=0 Speed table by CV 2, CV 5, und CV 6 0 * Bit 4=1 Speed table by CV 67..CV 94 16 Bit 5=0 Short address (CV 1) 0 * Bit 5=1 extended address (CV 17/18) 32 Bit 6/7 n/a	0-255	6
33-40	**Mapping table for light functions and den special functions** CV 33 light function if going forward CV 34 light function if going backwards CV 35 special key f1 CV 36 special key f2 CV 37 special key f3 CV 38 special key f4 CV 39 special key f5 CV 40 special key f6 Bit 0 front light 1 Bit 1 rear light 2 Bit 2 Ancillary output A1 4 Bit 3 Ancillary output A2 8 Bit 4 Switching (half) speed range 16 Bit 5 Acceleration/Deceleration active 32	0-63	 1 2 4 8 16 32 0 0
49	**Decoder configuration** **Value** Bit 0=0 compensation on 0 * Bit 0=1 compensation off 1 Bit 1=0 SUSI configration for sound modul 0 * Bit 1=1 SUSI configration for LISSY 2 Bit 2=0 decelerate to 0 in braking section 0 * Bit 2=1 decelerate to speed set in CV 52 4 Bit 3=0 data format DCC and Motorola** 0 * Bit 3=1 data format DCC only 8 Bit 4=0 data format DCC and Motorola** 0 * Bit 4=1 data format Motorola** only 16 Bit 5=0 no dimming for A1 and A2 0 Bit 5=1 dimming on for A1 and A2 32 * Bit 6=0 lamp connection straight 0 * Bit 6=1 lamp connection swapped 64 Bit 7=0 braking invoked by signal 0 * Bit 7=1 braking invoked by analog voltage 128 *Attention: When both digital formats are inactivated, the decoder will not respond to any signal and can only be programmed*	0-255	32
50	**Dimming of outputs A1, A2 and headlight**	0-63	63

CV	Description	Range	Default
51	**Analog operation** 1 = AC only 2 = DC only 3 = AC/DC with automatic recognition	1-3	3
52	**Speed at end of deceleration** Valid if CV 49 Bit 2=1 and Bit 7=1	0-255	30
53	**Sampling rate for compensation** reduce if the loco runs erratically	60-255	120
56	**Referenz** reduce if the maximum speed to slow enlarge if the loco with Fahrstufe 1 drives to fast	0-127	42
58	**Time slot for ADC sampling** enlarge, if the loco runs erratically at slow speed; reduce,if the maximum speed of the loco is to slow	0-255	10
59	**Reset to factory default** If this CV is 1 .ammed, the decoder will be set to factory default	0, 1	0
60	**Overload monitor (do NOT change)** 0 = off, 250 = active	-	251
61	**Overtemperature threshold in °C (90°C)** 0 = inactive	0-255	different
64	**Speed setting forwards** correction factor = value of CV 64/128	0-255	128
65	**Offset-Register** for CV-progr. using a Motorola** central unit	0-255	0
66	**Page Register** for CV-progr. using a Motorola** central unit	0-255	0
67-94	**Speed setting 1-28**	0-255	different
95	**Speed setting backwards** correction factor = value of CV 64/128	0-255	128
115	LISSY train category	1-4	1