

MCS2

POSITIONER TYPES



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1 *POSITIONER TYPES*

1.1 Introduction

This document describes the SmarAct positioner naming scheme. It lists all currently available positioner types for the MCS2 controller system and gives a cross reference between the sensor types of the MCS1 controller to the positioner types of the MCS2 controller.

1.2 Positioner Naming Scheme

This section describes the naming scheme for SmarAct positioners. A positioner name specifies all mechanical and electrical characteristics of a positioner. It also contains a running number which makes it possible to doubtless identify each SmarAct positioner.

Positioner-Type: S L ... T 1 S S															
Serial - Number: S L C 23 : 30 : 3 U R N C 1 T 1 S S - xxxxx															
Order - Number: S L C 23 : 30 : 3 U R N C 1 T 1 S S - O W 3 P															
Drive															
G None															
S Stick-Slip Drive															
L SmoothDrive															
Type of Motion															
L Linear															
R Rotary															
G Goniometer															
T Tip-Tilt															
I Iris-Diaphragm															
Guideway / Bearing															
T None															
B Ball bearing															
C 3-parts crossed-rollers															
S 4-parts crossed-rollers															
L Recirculating ball															
V Recirculating ball (HV)															
M 4-point bearing (rot.)															
P 3-parts bearing (rot.)															
N Crossed-rollers (rot.)															
G 4-parts crossed-rollers (goniometer)															
Dimension I															
xx e.g. width in mm (linear)															
Dimension II															
xx e.g. length in mm (linear)															
Force	Torque														
0 Passive	Passive														
1 -	> 0,5 Ncm														
2 > 2 N	-														
3 > 3,5 N	> 3 Ncm														
5 > 5,5 N	> 5 Ncm														
7 > 7,5 N	> 7 Ncm														
10 > 10,5 N	> 10 Ncm														
20 -	> 20 Ncm														
Pressure															
A Ambient															
F Fine vacuum															
H High vacuum															
U Ultrahigh vacuum															
Surface															
N Nature															
P Polished															
S Sandblasted															
K Nickel plated															
B Black anodized															
L Blue anodized															
M Mixed surfaces															
Baseplate-Type															
[*] Standard															
W Pretension from side															
R Round															
E Customized															
Width in mm															
Mounting-Holes															
Reference-Type + Details															
Sensor-Type + Details															
X Open-Loop															
S S-Sensor															
L L-Sensor															
M M-Sensor															
I I-Sensor															
P PicoScale															
Piezo-Motor Type															
Temperature															
[*] Room-temperature															
C Cryogenic															
Magnetism															
[*] Ferromagnetic															
N Non-magnetic															
Cable-Type															
[*] Without cable															
R PTF in shield															
W PTF in shield, white jacket															
B PTF in shield, black jacket															
K Kapton, braided															

* Field is omitted

1.3 Positioner Types Table

Each channel of the MCS2 controller must be configured with the type of positioner that is connected to the channel. The following tables lists all currently available positioner types with their corresponding type codes.

Please refer to the *MCS2 Programmers Guide* document for more information on the positioner type configuration.

The positioner type name is derived from the positioner name as described in section 1.2 Positioner Naming Scheme. All software irrelevant fields (mainly mechanical characteristics) are represented by ‘...’ in the positioner type name.

Table 1.1 – Positioner Types Table

Serial Number	Type Code	Actuator	Sensor	Reference
SL...S1SS	300	Linear positioner, single piezo element	S	single mark
SL...D1SS	301	Linear positioner, double piezo element	S	single mark
SL...S1SC1	303	Linear positioner, single piezo element	S	DC marks
SL...D1SC1	304	Linear positioner, double piezo element	S	DC marks
SL...D1SC2	307	Linear positioner, double piezo element	S	DC marks (alternating)
SR...S1S5S	309	Small rotary positioner	S	single mark
SR...S1S6S	312	Rotary positioner	S	single mark
SR...D1S6S	313	Rotary positioner, double piezo element	S	single mark
SR...D1S7S	316	Rotary positioner, double piezo element	S	single mark
SR...T1S8S	320	Large rotary positioner	S	single mark
SG...D1S1S	325	Goniometer, 60.5mm radius, double piezo element	S	single mark
SG...D1S2S	328	Goniometer, 77.5mm radius, double piezo element	S	single mark
SL...S1LE	342	Linear positioner, single piezo element	L	endstop
SL...D1LE	343	Linear positioner, double piezo element	L	endstop
SL...S1LS	345	Linear positioner, single piezo element	L	single mark

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Serial Number	Type Code	Actuator	Sensor	Reference
SL...D1LS	346	Linear positioner, double piezo element	L	single mark
SL...S1LC1	348	Linear positioner, single piezo element	L	DC marks
SL...D1LC1	349	Linear positioner, double piezo element	L	DC marks
SR...S1L2S	354	Rotary positioner	L	single mark
SR...D1L2S	355	Rotary positioner, double piezo element	L	single mark
SL...S1ME	357	Linear positioner, single piezo element	M	endstop
SL...D1ME	358	Linear positioner, double piezo element	M	endstop
SL...S1P1E	360	Linear positioner, double piezo element	P	endstop
SL...D1P1E	361	Linear positioner, double piezo element	P	endstop
SG...S1M1E	363	Goniometer, 60.5mm radius, single piezo element	M	endstop
SG...S1M2E	366	Goniometer, 77.5mm radius, single piezo element	M	endstop
SG...D1L1S	381	Goniometer, 60.5mm radius, double piezo element	L	single mark
SG...D1L2S	383	Goniometer, 77.5mm radius, double piezo element	L	single mark
SG...D1L1E	387	Goniometer, 60.5mm radius, double piezo element	L	endstop
SG...D1L2E	389	Goniometer, 77.5mm radius, double piezo element	L	endstop

1.4 Positioner Types Cross Reference

The following table acts as a cross reference between the sensor types of the MCS1 controller to the positioner types of the MCS2 controller.

Table 1.2 – Cross Reference

MCS2 Serial Number	MCS2 Type Code	MCS1 Symbol	MCS1 Type Code	MCS1 Positioner Series
SL...S1SS	300	S	1	SLCxxxxs
SL...D1SS	301	SD	21	SLCxxxxds, SLLxxs
SL...T1SS	302	SP	5	SLCxxxxrs
SL...S1SC1	303	SC	6	SLCxxxxsc
SL...D1SC1	304	SCD	24	SLCxxxxdsc
SL...D1SC2	307	SC500	18	SLLxxsc
SR...S1S5S	309	SR20	8	SR2013s, SR1612s
SR...S1S6S	312	SR	2	SR36xxs, SR3511s, SR5714s, SR7021s, SR2812s, SR7012s, SR4513s, SR5018s
SR...D1S6S	313	SR2	23	SR36xxs, SR3511s, SR5714s, SR2812s, SR7012s, SR4513s, SR5018s
SR...T1S7S	316	SR77	20	SR7021s
SR...T1S8S	320	SR120	37	SR120xxs
SG...D1S1S	325	G605DS	48	SGO60.5s, SGO60.5ds
SG...D1S2S	328	G775DS	49	SGO77.5s, SGO77.5ds
SL...S1LE	342	LE	43	SLCxxxxl
SL...D1LE	343	LED	44	SLCxxxxdl
SL...S1LS	345	L	41	SLCxxxxl

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Table 1.2 – Continued from previous page

MCS2 Serial Number	MCS2 Type Code	MCS1 Symbol	MCS1 Type Code	MCS1 Positioner Series
SL...D1LS	346	LD	42	SLCxxxxdl
SL...S1LC1	348	LC	38	SLCxxxxl
SL...D1LC1	349	LCD	40	SLCxxxxdl
SR...S1L2S	354	LR	39	SR4011l, SR4513l
SR...D1L2S	355	-	-	SR4011dl, SR4513dl
SL...S1ME	357	M	9	SLCxxxxm
SL...D1ME	358	MD	32	SLCxxxxdme
SL...S1P1E	360	-	-	
SL...S1P1E	361	-	-	
SG...S1M1E	363	GD	11	SGO60.5m
SG...S1M2E	366	GE	12	SGO77.5m
SG...D1L1S	381	G605L	50	SGO60.5l
SG...D1L2S	383	G775L	51	SGO77.5l
SG...D1L1E	387	G605LE	53	SGO60.5l
SG...D1L2E	389	G775LE	54	SGO77.5l

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