

Connection table of Scales and Displays Old and New

Confidential

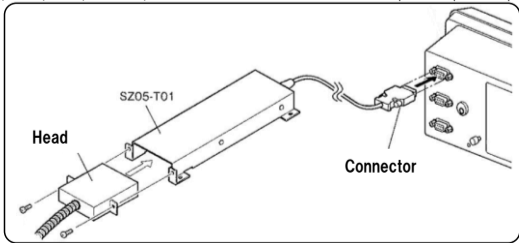
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MGS CS&S

Currently products are GB-ER, SR128, CE10-**C, SJ700A, PL20C, LH70/71/72, LG20, LY71/72 and adaptor SZ series, cable CH01-LW**C.

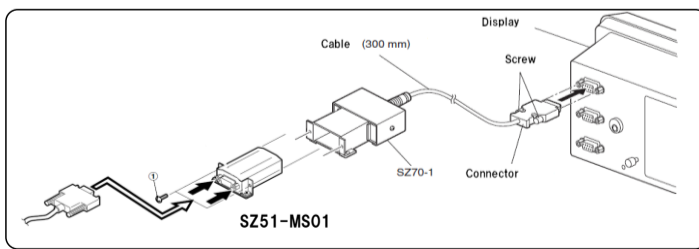
Scales		Displays		Standard								
						[LF100/10], LF110/120/20 LM10, LA10, LH10 [LU10 (A/B)], LH20, LH11/12 [NA30/31 (Digiruler)] [] : NO REF. FUNCTION	LH30	[LH31 (A) /32] LH41/42 [] : NO REF. FUNCTION	LH51/52/54 LH61, [LG10] LY51/52 [] : NO REF. FUNCTION	LH71/72 LY71/72 LH70/ [LG20] [] : NO REF. FUNCTION		
						HA13,15,23,25, PL20 (Analog input)	PL40	HA31, GB, PL20A (Analog input)	GB-A, SJ700, PL20B (UP/DOWN TTL input)	GB-ER, SJ300, SJ700A, PL20C (A/B differential line driver input)		
Set model	Model	Model of cable set or connection cable	Connector shape of display side or Head amp type	Incremental	Ref. point (Ex.)	Incremental	Incremental	Ref. point	Incremental	Ref. point	Incremental	Ref. point
GP	SR1711	HK-**C		Direct Connection!	Scales with built-in ref. point only: SR1711R, SR801R, SR50-R	Not connectable	Not connectable	Not connectable		Scales with built-in ref. point only: SR1711R, SR801R, SR50-R		Scales with built-in ref. point only: SR1711R, SR801R, SR50-R
GP-R	SR1711R	HK-**CR										
GL	SR801	HK-1**C										
GL-R	SR801R	HK-2**C										
MSS-101	MSS-101	HK-1**C										
GS	SR10, SR741	HK-4**C										
GF	SR50	HK-4**C										
GF-R	SR50-R	HK6-**CR	D-SUB 15P Raw signal	Not connectable	Not connectable	Not connectable	Not connectable	Not connectable	Not connectable	Not connectable		*2: Single direction (Ref: PH100)
GM	SR30	HK-4**C										
	SR801 MSS-101	MK-6** MK-7** HK1**C-900C (extension cable)	HA31 Analog	SZ04	SZ04R (Ref: PH500)	Not connectable	Direct Connection!	Both directions SZ10 (Ref: PH500)	SZ51-MS01	*1: Single direction SZ10 (Ref: PH500)	SZ70-1 SZ51-MS01	*3: Single direction SZ10 (Ref: PH500)
	SR118	CE07-**C CH02-** (without armor)	UP/DOWN (TTL)	Not connectable	Not connectable	Not connectable	Not connectable	Not connectable	DZ51	Not connectable	SZ70-1 DZ51	Not connectable
GB	SR108 SR107	integrated cable (3m) CE04-** (extension cable)	HA31 Analog	SZ04	SZ04R (Ref: PH500)	Not connectable	Direct Connection!	Both directions SZ10 (Ref: PH500)	SZ51-MS01	*1: Single direction SZ10 (Ref: PH500)	SZ70-1 SZ51-MS01	*3: Single direction SZ10 (Ref: PH500)
GB-A	SR128	CH01-**C CE10-**C (extension cable)	MS_UNIT UP/DOWN	Not connectable	Not connectable	Not connectable	Not connectable	Not connectable	Direct Connection!	Not connectable	SZ70-1	Not connectable
	SR128 SR127	CH01-LW**C CE10-**C (extension cable)	HA31 Analog	SZ04	SZ04R (Ref: PH500)	Not connectable	Direct Connection!	Both directions SZ10 (Ref: PH500)	SZ51-MS01	*1: Single direction SZ10 (Ref: PH500)	SZ70-1 SZ51-MS01	*3: Single direction SZ10 (Ref: PH500)
	SR128 SR127	CE11-**C CE10-**C (extension cable)	D-SUB 15P Raw signal	Not connectable	Not connectable	Not connectable	Not connectable	Not connectable	Not connectable	Not connectable	MD20B	*2: Single direction (Ref: PH100)
GB-ER	SR138R	CH04-03C CE10-**C (extension cable)	D-SUB 9P A/B quadrature	Not connectable	Not connectable	Not connectable	Not connectable	Not connectable	CE30 SZ51-AB01	AVAILABLE with built-in ref. point	Direct Connection!	Direct Connection! with built-in ref. point
	SJ300	CH33-**CPD/-**CED	D-SUB 9P A/B quadrature	Not connectable	Not connectable	Not connectable	Not connectable	Not connectable	CE30 SZ51-AB01	Not connectable	Direct Connection!	Not connectable
	SJ700	Scale with cable	SJ_UNIT UP/DOWN (TTL)	Not connectable	Not connectable	Not connectable	Not connectable	Not connectable	Direct Connection!	Not connectable	SZ70-1	Not connectable
	SJ700A	Scale with cable	D-SUB 9P A/B quadrature	Not connectable	Not connectable	Not connectable	Not connectable	Not connectable	CE30 SZ51-AB01	Not connectable	Direct Connection!	Not connectable
SET-A02 GA	SL410	PL40	D-SUB 9P Analog	Not connectable	Not connectable	Direct Connection!	Not connectable	Not connectable	Not connectable	Not connectable	Not connectable	Not connectable
	SL110 SL130	PL20	Analog	Direct Connection!	Not connectable	Not connectable	Not connectable	SZ09	Not connectable	Not connectable	Not connectable	Not connectable
		PL20A	analog	SZ06	Not connectable	Not connectable	Direct Connection!	Not connectable	Not connectable	Not connectable	SZ70-1 SZ51-DR01	Not connectable
		PL20B	DR_UNIT UP/DOWN (TTL)	Not connectable	Not connectable	Not connectable	Not connectable	Not connectable	Direct Connection!	Not connectable	SZ70-1	Not connectable
		PL20C	D-SUB 9P A/B quadrature differential line driver	Not connectable	Not connectable	Not connectable	Not connectable	Not connectable	CE30 SZ51-AB01	Not connectable	Direct Connection!	Not connectable

Examples

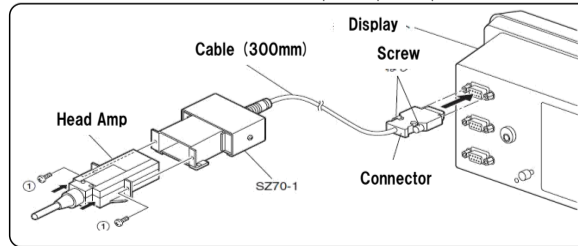
GP, GS, GF, GF-R, GM → SZ05-T01 → LH70/LH71/LH72/LG20



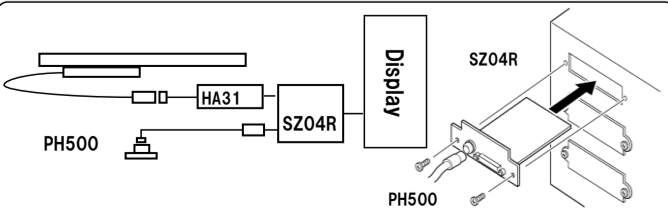
GB → SZ51-MS01 → SZ70-1 → LH70/LH71/LH72/LG20



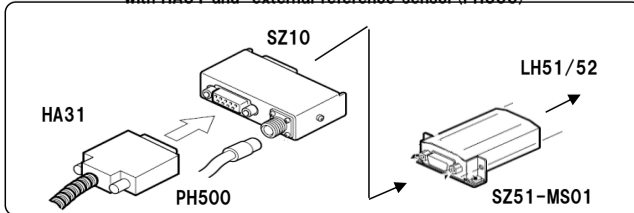
GB-A → SZ70-1 → LH70/LH71/LH72/LG20



Connection of head amp type input with external reference sensor (PH500)



In case of connect to counter model LH51/LH52 with HA31 and external reference sensor (PH500)



[On the Reference point]
*1: Single direction (PH500)
Use for single direction due to it has possibility one λ slips off from an opposite direction approach.
*2: Single direction (PH100)
Use for single direction due to it has approx. 8mm slips off.
*3: Single direction (PH500) **<Out of official recommendation>**
Use for single direction. There is a possibility few μm slip off when an opposite direction approach, because incremental is out of sync.
Please make a slow move to reference in order to stable accuracy (80mm/s<)