PRELIMINARY TECHNICAL INFORMATION

Signal conditioner for MTM-series sensors + voltage transducer



non-contractual photo

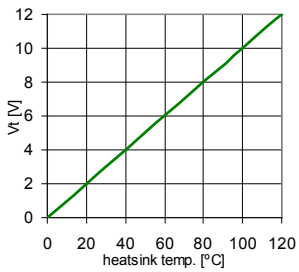
HIGHLIGHTS

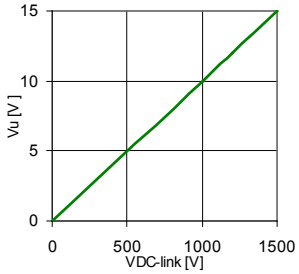
- Heatsink temperature signal conditioning
- Up to 3 output phase current signal conditioning
- DC-link voltage measuring (up to1500V_{DC})
- Mechanical adaption for connect up to 3 internal modules NTC's and a thermostat

SCiSensor153 is a signal conditioner board designed for conditioning the electrical output signals of the sensors included in the MTM-series**.** It also includes the voltage transducer. **SCiSensor153** concentrates all the necessary feedback signals (for monitoring and control) in a single connector.

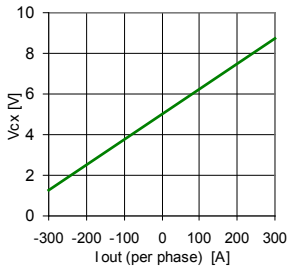
ELECTRICAL CHARACTERISTICS

Description	*symbol*	*notes/test conditions*	*Min*	*Typ*	*Max*	*Units*
Supply voltage	V_{CC}			±15		V
Feedback signal of heatsink temp.	V_T	relative error <2,5%	0		12	V
Heatsink temp. measurable range			0		120	ºC
Feedback signal of output current	V_{CX}	relative error <3%	0		10	V
Current measurable range		using HASS 100-S	-300		300	A
Current measurable range		using HASS 200-S	-600		600	A
Current measurable range		using HASS 300-S	-900		900	A
Feedback signal of DC-link voltage	V_U	relative error <2,8%	0		15	V
DC-link measurable voltage range			0		1500	V_{DC}

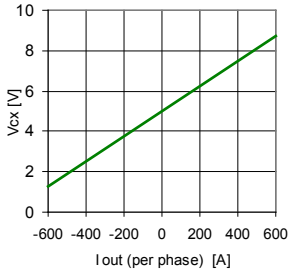




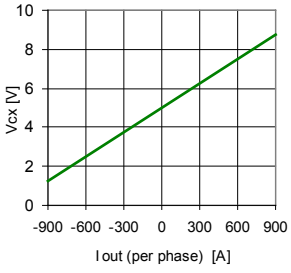
using HASS 100-S



using HASS 200-S



using HASS 300-S



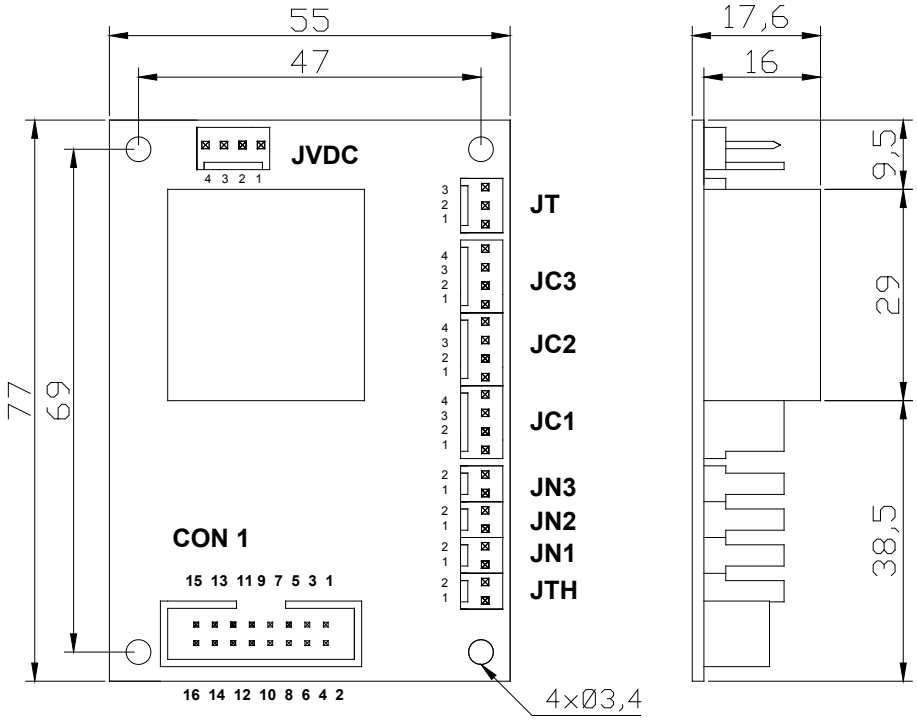
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CON1	designation	function
1	+15Vcc	+15V_{DC} for supply voltage
2	NTCU1	NTC terminal 1 of IGBT module U
3	NTCV2	NTC terminal 2 of IGBT module V
4	NTCV1	NTC terminal 1 of IGBT module V
5	NTCW1	NTC terminal 1 of IGBT module W
6	NTCU2	NTC terminal 2 of IGBT module U
7	NTCW2	NTC terminal 2 of IGBT module W
8	TH_2	Thermostat terminal 2
9	V_T	Output signal of heatsink temp.
10	TH_1	Thermostat terminal 1
11	V_{C_V}	Output signal of phase V output current
12	V_U	Output signal of VDC-link voltage
13	V_{C_W}	Output signal of phase W output current
14	V_{C_U}	Output signal of phase U output current
15	-15Vcc	-15V_{DC} for supply voltage
16	GND	Ground terminal for supply and signal

connector CON1: type TYCO 1-1634688-6
connector JTH, JN1, JN2, JN3: type MOLEX 22-27-2021
connector JT: type MOLEX 22-27-2031
connector JVDC,JC1, JC2, JC3: type MOLEX 22-27-2041

JVDC:1	to R+ V_{DC}link voltage sensing
JVDC:2	N.C.
JVDC:3	N.C.
JVDC:4	to R- V_{DC}link voltage sensing
JT:1	to V- HTS system
JT:2	to ADJ HTS system
JT:3	to V+ HTS system
JC1:1	5V to supply HASS X00-S (1)
JC1:2	GND for HASS X00-S (1)
JC1:3	output signal from HASS X00-S (1)
JC1:4	reference for HASS X00-S (1)
JC2:1	5V to supply HASS X00-S (2)
JC2:2	GND for HASS X00-S (2)
JC2:3	output signal from HASS X00-S (2)
JC2:4	reference for HASS X00-S (2)
JC3:1	5V to supply HASS X00-S (3)
JC3:2	GND for HASS X00-S (3)
JC3:3	output signal from HASS X00-S (3)
JC3:4	reference for HASS X00-S (3)
JN1:1	to internal module NTC 1 (A)
JN1:2	to internal module NTC 1 (B)
JN2:1	to internal module NTC 2 (A)
JN2:2	to internal module NTC 2 (B)
JN3:1	to internal module NTC 3 (A)
JN3:2	to internal module NTC 3 (B)
JTH:1	to thermostat (A)
JTH:2	to thermostat (B)

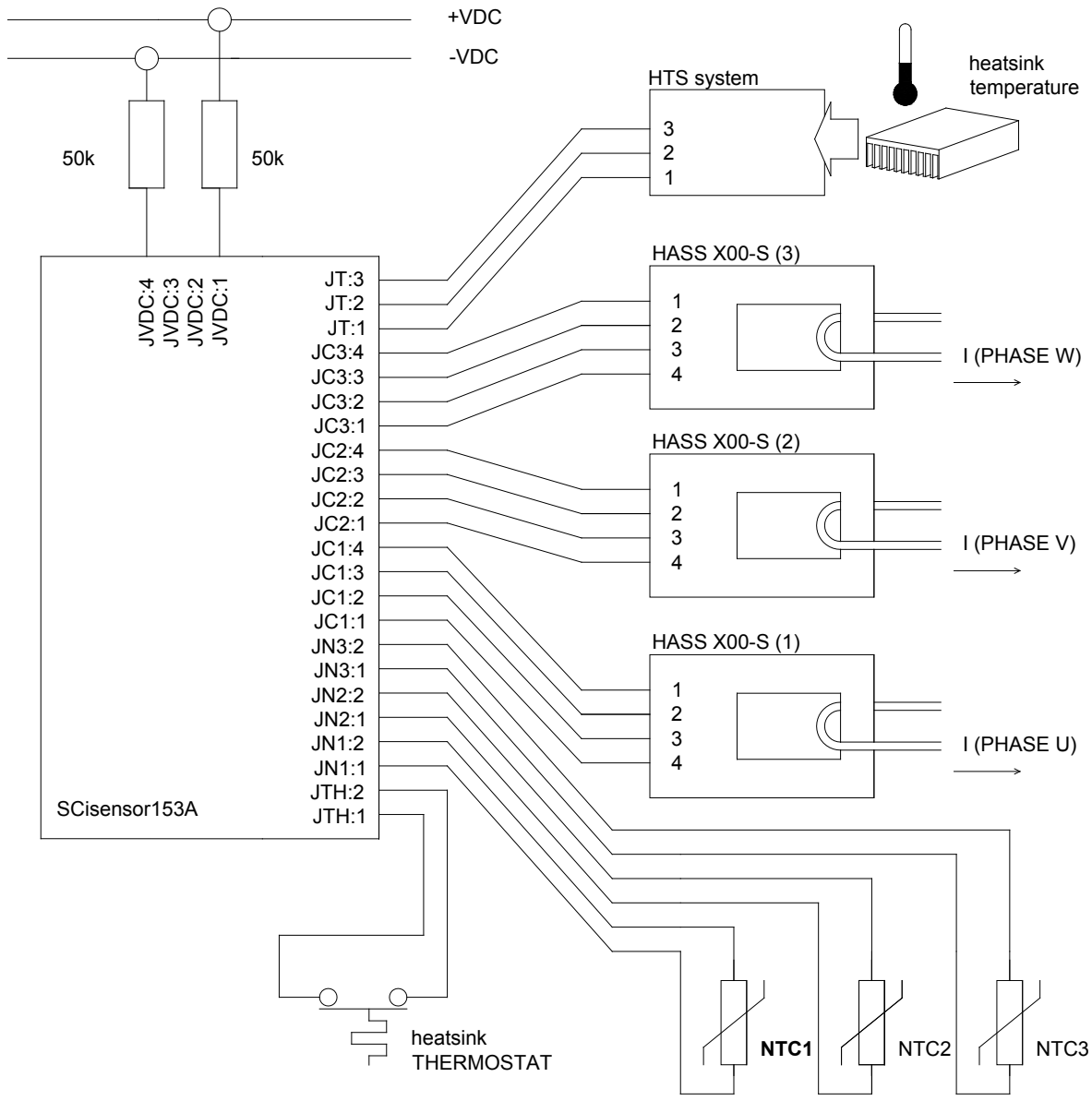


All dimensions are in mm

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APPLICATION EXAMPLE



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