

GENERAL DESCRIPTION:

Purpose of the SIM 150 is to digitize and subdivide sinusoidal output signals from linear or rotary measuring transducer. Electronic circuit of SIM 150 subdivided sinusoidal incremental signals generated by linear or rotary transducer with the aid of resistor network. Subdivisional factor is 25 or 50. SIM 150 in case of any mistake in transducer (damaged cable, lamp error, scale contamination ...), generated E impulse and setup outputs in high impedance state.

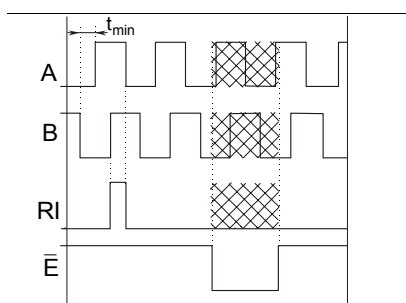
MECHANICAL DATA:

Operating temperature	0°C to 50°C
Storage temperature	-10°C to 50°C
Weight	cca 0.4 kg
Degree of mechanical protection	IP 53
Cable length	max. 20 m; option: max. 50m

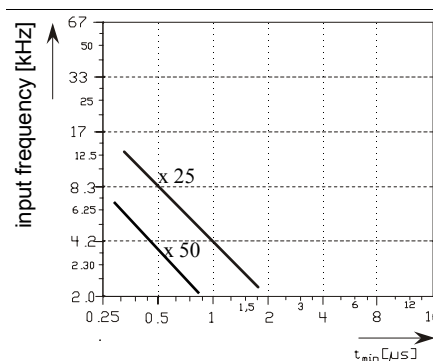
ELECTRICAL DATA:

Supply voltage	5 V ± 5%
Supply current (without transducer)	70 mA ± 10%

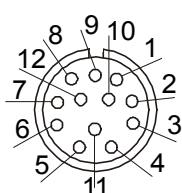
Input signals:



$t_{min} = f(\text{input frequency})$:



Output connector: (male), (contact side view)



pin	1	2	3	4	5	6	7	8	9	10	11	12
signal	\overline{B}	5 V	RI	\overline{RI}	A	\overline{A}	\overline{E}	B	shield	0 V	0 V	5 V
color	pink	blue	red	black	brown	green	violet	grey		white	white	blue

Measuring signals:

Diferential digital in accordance with RS 422 A EIA standard $A, \overline{A}, B, \overline{B}, RI, \overline{RI}, \overline{E}$

Signal's level:

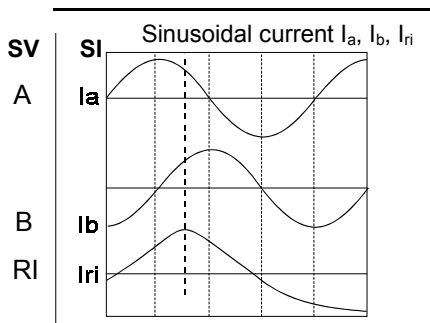
at $I_{sink} = 20 \text{ mA}$ $U_{OL} \leq 0.5 \text{ V}$
 at $I_{source} = -20 \text{ mA}$ $U_{OH} \leq 2.5 \text{ V}$

Error signal:

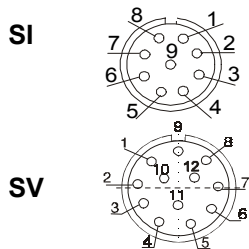
1 Digital impulse with same fan out like measuring signals. When is E signal is active (LOW), measuring signals

ELECTRICAL DATA:

Input signals:



Input connector (contact side view) female, screw type



Amplitude:

SI	SV
$8 \mu A \leq a \leq 16 \mu A$	$0,6 V \leq U_a \leq 1,2 V$
$8 \mu A \leq b \leq 16 \mu A$	$0,6 V \leq U_b \leq 1,2 V$
$2 \mu A \leq r_i \leq 8 \mu A$	$0,2 V \leq U_{r_i} \leq 0,85 V$

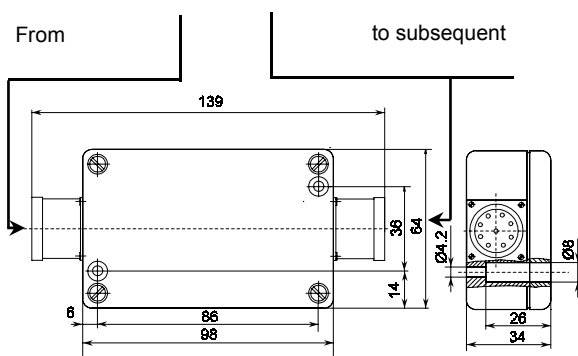
Input frequencies

interpolations:		interpolations:	
25	50	25	50
50 kHz	25 kHz	50 kHz	25 kHz

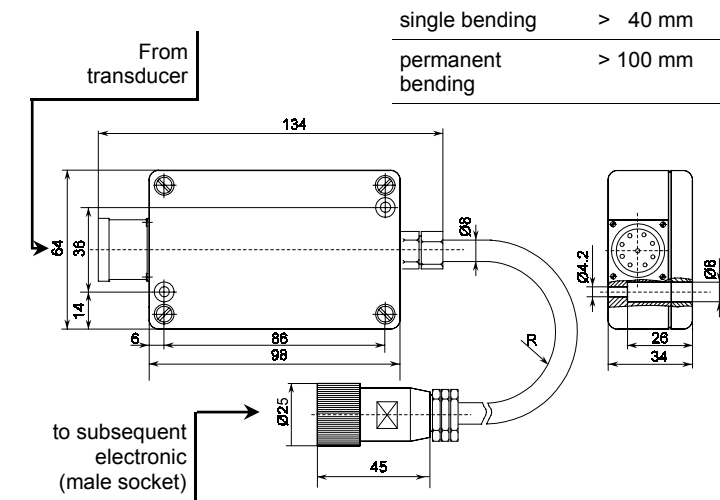
pin	1	2	3	4	5	6	7	8	9	
signal	I_{a+}	I_{a-}	+5 V	0 V	I_{b+}	I_{b-}	I_{ri+}	I_{ri-}	0V	
pin	5	6	8	1	3	4	12	10	2	11
signal	A+	A-	B+	B-	RI+	RI-	5V	0V	5V sense	0V sense

DIMENSIONS:

Option - SIM 150-A:



Option - SIM 150-B



ORDERING DATA:

SIM 150 - X - - XX - - XX -

Place of output connector:

A ... on housing
B ... on cable

Type of input signals

SI - SI signals
SV - SV signals

Interpolation factor

25 - 25 x
50 - 50 x

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