



AKH-0.66/SM Dual-Output Current Transformer Series



Application

- AC current measurement and metering.
- 4-20mA DC signal for PLC / DCS.

Basic Parameters

- Models: SM-50I through SM-200II
- Primary current: 5-6300A
- Outputs: 5A/1A AC + 4-20mA DC
- Auxiliary power: DC24V

Technical Indicators

Measurement Output

- First output: AC 0-5 A
or AC 0-1 A
- For measuring and
metering devices
- Accuracy / burden:
ratio-dependent

Analogue Output

- Second output:
DC 4-20 mA
- For PLC / DCS input
- Auxiliary supply: DC 24 V
supplied by PLC
- Load: 500 Ω

Model Range

- SM-50I / SM-60II
- SM-80II / SM-100II
- SM-120II / SM-200II
- Primary current:
5-6300 A
- Busbar: 1-3 bars

Installation Instruction

Installation Instruction

Official product range



SM-50I



SM-60II



SM-80II



SM-100II



SM-120II

Wiring diagram

Dimensions in mm

Model	W	H	D	a	e	Φ	M	N	1S1	Meter
SM-50I	96	146	45	52	31	40	50	60	2S1 +	PLC / DCS 4-20 mA
SM-60II	98	145	45	62	31.5	—	42	57.5	2S2 -	
SM-80II	118	152	45	82	32	—	60	57.5	1S2	
SM-100II	140	155	49	102	32	—	75	57.5		
SM-120II	167	187	48	122	52	—	54	57.5		
SM-200II	246	208	56	206	61	—	188	57.5		

unused, short-circuit these terminals.

Product Feature

The AKH-0.66/SM series provides two independent outputs from one current transformer. The first output supplies AC 0-5 A or AC 0-1 A for measuring and metering devices. The second output supplies DC 4-20 mA for automation systems such as PLC or DCS, with the DC 24 V auxiliary power supplied by the PLC. The series includes SM-50I, SM-60II, SM-80II, SM-100II, SM-120II and SM-200II models, covering primary currents from 5 A to 6300 A depending on the selected model and ratio.



Model Selection — Part 1

SM Model Selection — Part 1

Model	Ratio (A)	Rated burden VA / Ω	Turns	Aperture / busbar	Install
SM-50I	5/5(1)/4-20mA	2.5/500	30	$\Phi 40$ or 50×10 / 1-2	F or C/F
SM-50I	10/5(1)/4-20mA	2.5/500	15	$\Phi 40$ or 50×10 / 1-2	F or C/F
SM-50I	15/5(1)/4-20mA	2.5/500	10	$\Phi 40$ or 50×10 / 1-2	F or C/F
SM-50I	20/5(1)/4-20mA	2.5/500	8	$\Phi 40$ or 50×10 / 1-2	F or C/F
SM-50I	25/5(1)/4-20mA	2.5/500	6	$\Phi 40$ or 50×10 / 1-2	F or C/F
SM-50I	30/5(1)/4-20mA	2.5/500	5	$\Phi 40$ or 50×10 / 1-2	F or C/F
SM-50I	40/5(1)/4-20mA	2.5/500	4	$\Phi 40$ or 50×10 / 1-2	F or C/F
SM-50I	50/5(1)/4-20mA	2.5/500	3	$\Phi 40$ or 50×10 / 1-2	F or C/F
SM-50I	60/5(1)/4-20mA	2.5/500	3	$\Phi 40$ or 50×10 / 1-2	F or C/F
SM-50I	75/5(1)/4-20mA	2.5/500	2	$\Phi 40$ or 50×10 / 1-2	F or C/F
SM-50I	80/5(1)/4-20mA	2.5/500	2	$\Phi 40$ or 50×10 / 1-2	F or C/F
SM-50I	100/5(1)/4-20mA	2.5/500	2	$\Phi 40$ or 50×10 / 1-2	F or C/F
SM-50I	150/5(1)/4-20mA	2.5/500	1	$\Phi 40$ or 50×10 / 1-2	F or C/F
SM-50I	200/5(1)/4-20mA	2.5/500	1	$\Phi 40$ or 50×10 / 1-2	F or C/F
SM-50I	250/5(1)/4-20mA	2.5/500	1	$\Phi 40$ or 50×10 / 1-2	F or C/F
SM-50I	300/5(1)/4-20mA	5/500	1	$\Phi 40$ or 50×10 / 1-2	F or C/F
SM-50I	400/5(1)/4-20mA	5/500	1	$\Phi 40$ or 50×10 / 1-2	F or C/F
SM-50I	500/5(1)/4-20mA	10/500	1	$\Phi 40$ or 50×10 / 1-2	F or C/F
SM-50I	600/5(1)/4-20mA	10/500	1	$\Phi 40$ or 50×10 / 1-2	F or C/F
SM-50I	750/5(1)/4-20mA	10/500	1	$\Phi 40$ or 50×10 / 1-2	F or C/F
SM-50I	800/5(1)/4-20mA	10/500	1	$\Phi 40$ or 50×10 / 1-2	F or C/F
SM-50I	1000/5(1)/4-20mA	10/500	1	$\Phi 40$ or 50×10 / 1-2	F or C/F
SM-50I	1200/5(1)/4-20mA	15/500	1	$\Phi 40$ or 50×10 / 1-2	F or C/F
SM-50I	1250/5(1)/4-20mA	20/500	1	$\Phi 40$ or 50×10 / 1-2	F or C/F



Model Selection — Part 2

SM Model Selection — Part 2

Model	Ratio (A)	Rated burden VA / Ω	Turns	Aperture / busbar	Install
SM-60II	300/5(1)/4-20mA	5/500	1	60×10 / 1-2	C
SM-60II	400/5(1)/4-20mA	5/500	1	60×10 / 1-2	C
SM-60II	500/5(1)/4-20mA	10/500	1	60×10 / 1-2	C
SM-60II	600/5(1)/4-20mA	10/500	1	60×10 / 1-2	C
SM-60II	750/5(1)/4-20mA	10/500	1	60×10 / 1-2	C
SM-60II	800/5(1)/4-20mA	10/500	1	60×10 / 1-2	C
SM-60II	1000/5(1)/4-20mA	10/500	1	60×10 / 1-2	C
SM-60II	1200/5(1)/4-20mA	15/500	1	60×10 / 1-2	C
SM-60II	1250/5(1)/4-20mA	20/500	1	60×10 / 1-2	C
SM-60II	1500/5(1)/4-20mA	20/500	1	60×10 / 1-2	C
SM-60II	2000/5(1)/4-20mA	20/500	1	60×10 / 1-2	C
SM-80II	600/5(1)/4-20mA	10/500	1	80×10 / 1-2	C
SM-80II	750/5(1)/4-20mA	10/500	1	80×10 / 1-2	C
SM-80II	800/5(1)/4-20mA	10/500	1	80×10 / 1-2	C
SM-80II	1000/5(1)/4-20mA	10/500	1	80×10 / 1-2	C
SM-80II	1200/5(1)/4-20mA	15/500	1	80×10 / 1-2	C
SM-80II	1250/5(1)/4-20mA	20/500	1	80×10 / 1-2	C
SM-80II	1500/5(1)/4-20mA	20/500	1	80×10 / 1-2	C
SM-80II	2000/5(1)/4-20mA	20/500	1	80×10 / 1-2	C
SM-80II	2500/5(1)/4-20mA	30/500	1	80×10 / 1-2	C
SM-80II	3000/5(1)/4-20mA	30/500	1	80×10 / 1-2	C



Model Selection — Part 3

SM Model Selection — Part 3

Model	Ratio (A)	Rated burden VA / Ω	Turns	Aperture / busbar	Install
SM-100II	1000/5(1)/4-20mA	10/500	1	100×10 / 1-2	D
SM-100II	1200/5(1)/4-20mA	15/500	1	100×10 / 1-2	D
SM-100II	1250/5(1)/4-20mA	20/500	1	100×10 / 1-2	D
SM-100II	1500/5(1)/4-20mA	20/500	1	100×10 / 1-2	D
SM-100II	2000/5(1)/4-20mA	20/500	1	100×10 / 1-2	D
SM-100II	2500/5(1)/4-20mA	30/500	1	100×10 / 1-2	D
SM-100II	3000/5(1)/4-20mA	30/500	1	100×10 / 1-2	D
SM-100II	4000/5(1)/4-20mA	30/500	1	100×10 / 1-2	D
SM-120II	2000/5(1)/4-20mA	20/500	1	120×10 / 1-3	D
SM-120II	2500/5(1)/4-20mA	30/500	1	120×10 / 1-3	D
SM-120II	3000/5(1)/4-20mA	30/500	1	120×10 / 1-3	D
SM-120II	4000/5(1)/4-20mA	30/500	1	120×10 / 1-3	D
SM-120II	5000/5(1)/4-20mA	30/500	1	120×10 / 1-3	D
SM-200II	2000/5(1)/4-20mA	20/500	1	200×10 / 1-3	D
SM-200II	2500/5(1)/4-20mA	30/500	1	200×10 / 1-3	D
SM-200II	3000/5(1)/4-20mA	30/500	1	200×10 / 1-3	D
SM-200II	4000/5(1)/4-20mA	30/500	1	200×10 / 1-3	D
SM-200II	5000/5(1)/4-20mA	30/500	1	200×10 / 1-3	D
SM-200II	6300/5(1)/4-20mA	30/500	1	200×10 / 1-3	D