NK Technologies AC Current Transducers

AT and ATP current transducers combine a current transformer and signal conditioner in a single package. These transducers offer jumper selected current input ranges with proportional industry standard 4-20 mA, 0-5 VDC and 0-10 VDC outputs. The AT and ATP series are designed for application on "linear" or sinusoidal AC loads. Available in a split core or two types of solid core cases.

ATR and ATPR transducers combine a current transformer and True RMS signal conditioner in a single package. The ATR and ATPR series provide True RMS outputs on distorted waveforms found on VFD and SCR outputs or on linear loads in "noisy" power environments. Available in a solid or split core case.

AT & ATP SPECIFICATIONS

	-005 Models	-010 Models	-420 Models
Output Signal:	0–5 VDC	0–10 VDC	4–20 mA
Output Limit:	10 VDC	15 VDC	40 mA
Accuracy:	1.0% FS	1.0% FS	0.5% FS
Frequency Range:	50–60 Hz	50–60 Hz	20–100 Hz
Power Supply:	Self or External	Self or External	Loop or External
Isolation Voltage:	UL Listed to 1270 VAC, Tested to 5 kV		
Sensing Aperture:	-FF Case: 0.55" (14 mm) Diameter -FT Case: 0.75" (19 mm) Diameter -SP Case: 0.85" (21.5 mm) Sq.		
Case:	UL 94V-0 Flammability Rated		
Environmental:	-4 to 122˚F (-20 to 50˚C), 0–95% RH, Non-Condensing		
Listings:	UL 508 Industrial Control Equipment (USA and Canada), CE		

ATR & ATPR SPECIFICATIONS

Output Signal:	4–20 mA, Loop-Powered, True RMS
Output Limit:	23 mA
Accuracy:	0.8% FS (1.0% on ATR3 & 4)
Frequency Range:	10–400 Hz
Power Supply:	24VDC Nom., 40 VDC Max., 120 VAC
Isolation Voltage:	UL Listed to 1270 VAC, Tested to 5 kV (600 VAC on ATR3 & 4)
Sensing Aperture:	-FT Models: 0.75" (19 mm) Dia. -FL Models: 3.0" (76 mm) Dia. -SP Models: 0.85" (21.5 mm) Sq.
Case:	UL 94V-0 Flammability Rated
Environmental:	-4 to 122˚F (-20 to 50˚C), 0–95% RH, Non-Condensing
Listings:	UL 508 Industrial Control Equipment (USA and Canada)
Loading (All Models)	
Loop Power:	R_L <500Ω
External Power:	R_L >50kΩ
Self Powered:	Accuracy for R_L >1MΩ, add 1.3% for R_L = 100 kΩ

ORDERING INFORMATION

A	Model	
	AT	Average sensing, loop or self-powered
B	Input Ranges	
	0	0–2/5A
	1	0–10/20/50A
	2	0–100/150/200A
	3	0–375/500/750A
	4	0–1000/1333/2000A
C	Output	
	420	4–20mA
	005	0–5 VDC (0,1,2 only)
	010	0–10 VDC (0,1,2 only)
D	Power	
	24L	24 VDC Loop Powered (4–20mA only)
	000	Self powered (DC output only)
E	Case	
	FF	Fixed core, front terminals (0,1,2 only)
	FT	Fixed core, top terminals (0,1,2 only)
	SP	Split core
	FL	Fixed core (3 & 4 only)

A	Model	
	ATP	Average sensing, ext. powered
	ATPR	True RMS sensing, ext. powered
B	Input Ranges	
	0	0–2/5A (ATP only)
	1	0–10/20/50A (ATP only)
	2	0–100/150/200A (ATP only)
	3	0–375/500/750A
	4	0–1000/2000A
C	Output	
	420	4–20mA
	005	0–5 VDC
	010	0–10 VDC
D	Power	
	24U	24V AC/DC, isolated output
	120	120VAC
E	Case	
	FF	Fixed core, front terminals (0,1,2 only)
	FL	Fixed core (3 & 4 only)
	SP	Split core (0,1,2 only)

A	Model	
	ATR	TRMS sensing, loop powered
B	Input	
	3	0–375/500/750A
	4	0–1000/1333/2000
C	Output	
	420	4–20mA
D	Power	
	24L	24VDC, loop powered
E	Case	
	FL	Fixed core