

WKO-2C / -2C-B

Active current transformers

REO has developed a new generation of closed-loop (C/L) current transducers which guarantee increased current measurement accuracy better than 0.3% in the whole frequency range: DC to 150 kHz.

The new current transducer type WKO-2C is a completely new development utilizing REO's double-core technology magnetic design. The unit uses the latest hall effect elements with an extended frequency response up to 150 kHz and accurate phase response.

Completely redesigned electronics ensures that the new C/L current transducer has better drift compensation and an extended temperature range from -40°C to 85°C.

Plug+Play
Modular construction

- various mounting options through pluggable mounting feet and mounting kit for busbars
- 3 different connection options: Molex plugs, litz wires or litz wires with plug

Advantages

- High current measurement accuracy of 0.3%
- Modular designs providing universal mounting options
- Lower sensitivity to external magnetic fields
- Bidirectional and isolated current measurement
- Current output
- REO double-core technology
- All materials used are UL listed

- Through standardized design REO current sensors WKO-2C are compatible with conventional models available on the market – no modifications necessary
- Molex-22-29-2031
- JST-BH03B-XASK-BN High-Box Standard
- JST-BH3P-VH-1
- Bolted connection with faston connection
- stranded wire connection

WKO-2C-B

Also available for railway applications

- Fulfills the required railway engineering safety standards: EN 50175, EN 50155:2007 and IEC 61373:2010
- Specially for railway technology: shock and vibration tested according to IEC 61373:2010
- Bolted connection with faston connection



EN 50178: 1997
UL 94-V0

Technical data

WKO-2C								
Type	Primary RMS Nominal current I_{PN} [A]	Measurement range I_p [A]	Feed-in U_c [V]	Measurement accuracy $X_G @ I_{PN}$ [-20...70°C] of I_{PN} [%]	Ratio K_N	Secondary RMS nominal cur- rent I_{SN} [mA]	Secondary winding Resistor $R_s @ 85^\circ\text{C}$ [Ω]	No-load current [mA]
WKO-2C-300	300	0 ... ± 2000	$\pm 11,4 \dots 25,2$	$< \pm 0,3$	2000	150	13	$26 + I_s$
WKO-2C-500	500	0 ... ± 1000	$\pm 11,4 \dots 25,2$	$< \pm 0,3$	5000	100	76	$26 + I_s$
WKO-2C-1000	1000	0 ... ± 2700	$\pm 14,25 \dots 25,2$	$< \pm 0,3$	5000	200	42	$26 + I_s$
WKO-2C-2000	2000	0 ... ± 4000	$\pm 14,25 \dots 25,2$	$< \pm 0,3$	5000	400	26	$26 + I_s$

Genauigkeit und dynamische Daten

WKO-2C							
Type	Linearity mistake e [%]	Offset mistake@25° I_o [mA]	Offset drift -25°C ... +70°C I_{OT} [mA]	Reaction time t_{ra} [μs]	Response time 10%-90% t_a [μs]	dI/dt [A/ μs]	Stock width -1dB [kHz]
WKO-2C-300	$< \pm 0,1$	$\pm 0,5$	< 25	0,2	0,4	400	150
WKO-2C-500	$< \pm 0,1$	$\pm 0,5$	< 25	0,2	0,4	400	150
WKO-2C-1000	$< \pm 0,1$	$\pm 0,5$	< 25	0,2	0,4	400	150
WKO-2C-2000	$< \pm 0,1$	$\pm 0,5$	< 25	0,2	0,4	1000	150

Isolationsdaten

WKO-2C						
Type	Creepage distance d_{Cp} [mm]	Clearance d_{Ci} [mm]	Creep resistance [CTI]	AC-Isolation test 50/60Hz 1min U_d [kV]	Impulse voltage test 1,2/50 μs U_i [kV]	Weight [kg]
WKO-2C-300	14	13	600	6	12,5	0,340
WKO-2C-500	14	13	600	6	12,5	0,260
WKO-2C-1000	20	18	600	6	12,5	0,700
WKO-2C-2000	35	30	600	6	12,5	1,600

Typical applications: Variable speed control of 3-phase AC motors and servo motor drives, industrial inverters, uninterruptable power supplies, all types of switched-mode power supplies, power supplies for welding applications