User's Manual

K9350LE NO₂/NO Converter

IM 11G00E02-01EN

Thank you for selecting our "K9350LE NO2/NO Converter".

The NO_2/NO converter, by using a special catalyst which efficiently converts NO_2 in sample gas to NO, is to be coupled with a NOx gas analyzer or NH_3 gas analyzer for flue exhaust.



CAUTION

- Do not touch the converter section due to its high temperature. Wear protective gloves while exchanging catalyst.
- In order to protect the system controlled by the product and the product itself and ensure safe operation, observe the safety precautions described in this user's manual. We assume no liability for safety if users fail to observe these instructions when operating the product.
- Be sure to use the spare parts approved by Yokogawa Electric Corporation (hereafter simply referred to as YOKOGAWA) when replacing parts or consumables.
- · Modification of the product is strictly prohibited.

Notes on Handling User's Manuals

- Please hand over the user's manuals to your end users so that they can keep the user's manuals on hand for convenient reference.
- Please read the information thoroughly before using the product.
- The purpose of these user's manuals is not to warrant that the product is well suited to any particular purpose but rather to describe the functional details of the product.
- No part of the user's manuals may be transferred or reproduced without prior written consent from YOKOGAWA.
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Specification

Mounting: Indoor surface mounting Target Gases: General boiler exhaust gas,

catalyst: atmosphere Amount; 2 cm³

Replacement cycle; Approx. 8 months (at flow rate of 0.5 L/min with $5\%O_2,10$ ppm NO_2) Temperature set-point; 220 ± 10 °C

(Sensing tip; K thermocouple)

Wetted materials: Ceramic, glass filter, SUS316 Conversion efficiency: 95% or higher, conforms to JIS

Gas Flow Rate: 0.5 L/min

Gas inlet/outlet: ø6 mm tube connection Ambient Temperature: -5 to 45°C

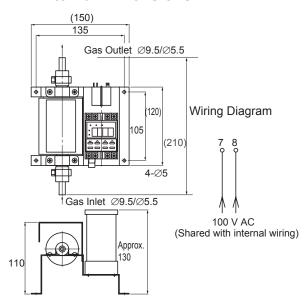
Power Supply: 100 V AC, 50/60 Hz Power Consumption: Approx. 85 W Weight: Sample gas requirements:

Approx. Approx. 1.1 kg Dust/drain removed, gas temperature at 150°C or lower

Spare Parts

Item	Part No.	Note
Catalyst for NO ₂ /NO converter	K9350LP	
Glass wool for NO ₂ /NO converter	K9350LQ	
Fitting for NO ₂ /NO converter	K9350LV	use 2 pcs

External Dimensions



Installation, Piping, Wiring

- The main frame should be installed vertically to the ground. Avoid installing it obliquely or laying it on its side
- Pipes should be connected so that the bottom port of converter block becomes an inlet and the top port becomes an outlet. (See "External Dimensions.")
- 3. Connect power supply to the terminals indicated in the wiring diagram. (Use type D for grounding.)
- 4. Prepare a breaker or a switchboard.
- Confirm the piping and wiring before turning ON the converter.
- Be careful of the high temperature after turning the power on. The temperature controller is set at 220°C. Since temperature has been factory-set, the temperature controller need not be operated.
- When the temperature reaches ±20°C from the setpoint of the temperature controller, the contact is opened.



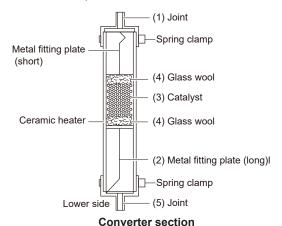
How to Replace Catalyst



Do not touch the converter section due to the high temperature. Wear protective gloves when replacing catalyst.

Catalyst should be replaced with new ones once every eight months. When flow rate is 0.5L/min or lower and NO₂ concentration is 10 ppm or lower.

- Turn off the main power supply for converter.
- When it has cooled down, by using a pair of pliers or the like, loosen and remove the spring clamps on the joint (1). The lower joint (5) can be easily removed by shifting it gradually with a blade-edge screwdriver. Be careful not to damage the ceramic heater.
- 3. After placing a catch pan to receive the falling catalyst (3) and glass wools (4), pull out the metal fitting plates (2).
- 4. Apply (4) to the end of metal fitting plate (long) (2), insert it from the lower side of the ceramic heater, then inject the new (3) from the top, using a funnel
- 5. Attach new joints (1) and (5) to the heater, and put on and tighten the spring clamps on both joints. Turn on the power.





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