

KafkaResponseDeserializer

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Kind: Class

Source: `packages/microservices/deserializers/kafka-response.deserializer.ts`

Part of: [Microservices](#)

`KafkaResponseDeserializer` converts Kafka consumer messages into Nest microservice `IncomingResponse` objects. It extracts the correlation ID and disposal state from Kafka headers while preserving the message value as the response payload, allowing `ClientKafka` to match responses to pending RPC requests.

Implements: `Deserializer`

Methods

Method	Signature	Returns
<code>deserialize</code>	<code>deserialize(message: any, options: Record<string, any>)</code>	<code>IncomingResponse</code>

Where it refuses work

- `KafkaResponseDeserializer` stops the work with an early return when `!isUndefined(message.headers[KafkaHeaders.NEST_ERR])` .
- `KafkaResponseDeserializer` stops the work with an early return when `!isUndefined(message.headers[KafkaHeaders.NEST_IS_DISPOSED])` .

Diagram

```
graph LR
  A[Kafka consumer message] --> B[KafkaResponseDeserializer.deserialize]
  B --> C[Read headers]
  C --> D[Correlation ID]
```

```
C --> E[Disposed flag]
B --> F[Message value]
D --> G[IncomingResponse]
E --> G
F --> G
G --> H[ClientKafka RPC response handling]
```

Usage

```
import {
  KafkaHeaders,
  KafkaResponseDeserializer,
} from '@nestjs/microservices';

const deserializer = new KafkaResponseDeserializer();

const incomingResponse = deserializer.deserialize({
  key: 'order.created',
  value: {
    orderId: 'order-123',
    status: 'created',
  },
  headers: {
    [KafkaHeaders.CORRELATION_ID]: 'request-abc-123',
    [KafkaHeaders.NEST_IS_DISPOSED]: false,
  },
});

console.log(incomingResponse);
// {
//   id: 'request-abc-123',
//   response: { orderId: 'order-123', status: 'created' },
//   isDisposed: false
// }
```

AI Coding Instructions

- Preserve the Kafka correlation ID header; it is required for matching a response with the originating RPC request.
- Keep the Kafka message `value` as the response payload rather than transforming its shape in this deserializer.
- Use `KafkaHeaders.CORRELATION_ID` and `KafkaHeaders.NEST_IS_DISPOSED` instead of hard-coded header names.
- Ensure response-producing Kafka consumers include the expected Nest Kafka headers when implementing custom request-response flows.

Relationships

- IMPORTS → `isUndefined`