

# eth\_newFilter

Creates a filter object based on the given filter options, to notify when the state changes (logs). To check if the state has changed, call [eth\\_getFilterChanges](#) .

Valid for fifteen minutes Filter IDs will be valid for up to fifteen minutes, and can be polled by any connection using the same `YOUR-API-KEY` .

## Parameters

A filter object with the following keys and their values:

- address
- :[optional]
- A contract address or a list of addresses from which logs should originate.
- fromBlock
- :[optional, default is latest]
- ]
- A hexadecimal block number, or one of the string tags latest
- , earliest
- , pending
- , safe
- , or finalized
- . See the [default block parameter](#)
- .
- toBlock
- :[optional, default is latest]
- ]
- A hexadecimal block number, or one of the string tags latest
- , earliest
- , pending
- , safe
- , or finalized
- . See the [default block parameter](#)
- .
- topics
- :[optional]
- An array of 32 bytes DATA topics. Topics are order-dependent.

## Specifying topic filters

Topics are order-dependent. A transaction with a log with topics [A, B] will be matched by the following topic filters:

- []
- : Anything.
- [A]
- :A
- in the first position, and anything after.
- [null, B]
- : Anything in first position AND B
- in second position, and anything after.
- [A, B]
- :A
- in the first position AND B
- in second position, and anything after.
- [[A, B], [A, B]]
- :(A OR B)
- in first position AND (A OR B)
- in second position, and anything after.

## Returns

filter ID : A hexadecimal denoting the newly created filter ID.

## Example

Replace YOUR-API-KEY with an API key from your [Infura dashboard](#) .

## Request

- cURL
- WSS

```
curl https://mainnet.infura.io/v3/YOUR-API-KEY \ -X POST \ -H "Content-Type: application/json" \ -d
'{"jsonrpc":"2.0","method":"eth_newFilter","params":[{"topics":
["0xddf252ad1be2c89b69c2b068fc378daa952ba7f163c4a11628f55a4df523b3ef"]}], "id":1}' wscat -c
wss://mainnet.infura.io/ws/v3/YOUR-API-KEY -x '{"jsonrpc":"2.0","method":"eth_newFilter","params":[{"topics":
["0xddf252ad1be2c89b69c2b068fc378daa952ba7f163c4a11628f55a4df523b3ef"]}], "id":1}'
```

## Response

- JSON

```
{ "jsonrpc": "2.0", "id": 1, "result": "0x10ff114de54f0bfdbd7855f8a1dd7317e6500495a24f" }
```

Last updated on Apr 19, 2024 [Previous eth\\_newBlockFilter](#) [Next eth\\_newPendingTransactionFilter](#)