

**NAME**

EVP\_sm4\_cbc, EVP\_sm4\_ecb, EVP\_sm4\_cfb, EVP\_sm4\_cfb128, EVP\_sm4\_ofb, EVP\_sm4\_ctr -  
EVP SM4 cipher

**SYNOPSIS**

```
#include <openssl/evp.h>
```

```
const EVP_CIPHER *EVP_sm4_cbc(void);  
const EVP_CIPHER *EVP_sm4_ecb(void);  
const EVP_CIPHER *EVP_sm4_cfb(void);  
const EVP_CIPHER *EVP_sm4_cfb128(void);  
const EVP_CIPHER *EVP_sm4_ofb(void);  
const EVP_CIPHER *EVP_sm4_ctr(void);
```

**DESCRIPTION**

The SM4 blockcipher (GB/T 32907-2016) for EVP.

All modes below use a key length of 128 bits and acts on blocks of 128 bits.

**EVP\_sm4\_cbc()**, **EVP\_sm4\_ecb()**, **EVP\_sm4\_cfb()**, **EVP\_sm4\_cfb128()**, **EVP\_sm4\_ofb()**,  
**EVP\_sm4\_ctr()**

The SM4 blockcipher with a 128-bit key in CBC, ECB, CFB, OFB and CTR modes respectively.

**NOTES**

Developers should be aware of the negative performance implications of calling these functions multiple times and should consider using **EVP\_CIPHER\_fetch(3)** instead. See "Performance" in **crypto(7)** for further information.

**RETURN VALUES**

These functions return a **EVP\_CIPHER** structure that contains the implementation of the symmetric cipher. See **EVP\_CIPHER\_meth\_new(3)** for details of the **EVP\_CIPHER** structure.

**SEE ALSO**

**evp(7)**, **EVP\_EncryptInit(3)**, **EVP\_CIPHER\_meth\_new(3)**

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