

SIMODRIVE 611 digital

X411
Drive module with digital setpoint interface

X421
High performance/
High standard control for 1FE1/1PH/1PM motors

X141/X341

U2, V2, W2

Order No.

Pre-assembled cable

6FX. 002-2CA31-....

≤ 50 m (164 ft)

Incremental encoder
sin/cos 1 V_{PP}
in 1PH/1PM motor
or SIMAG H

6FX. 002-2CA11-....

≤ 50 m (164 ft)

Incremental encoder
sin/cos 1 V_{PP}
6FX2001-3...

6FX8 002-2CA15-....

≤ 50 m (164 ft)

SIMAG H
hollow-shaft
measuring
system as
spindle encoder

6SN1 161-1CA00-....

(without terminator)

SINUMERIK 840D
powerline
inc. terminator

6SN1 161-1CA00-....

(without terminator)

SIMODRIVE 611
digital
MSD/FDD

6FX2 002-1CA01-....

≤ 10 m²) (32 ft 10 in)

1 m/2 m/5 m/7 m

(3 ft 3 in/6 ft 7 in/16 ft 5 in/23 ft)

(without terminator)

NCU
terminal block

6FX2 002-1CA01-....

≤ 10 m²) (32 ft 10 in)

1 m/2 m/5 m/7 m

(3 ft 3 in/6 ft 7 in/16 ft 5 in/23 ft)

NCU
terminal block

6FX2 002-1CC00-....

1.5 m/2 m/5 m

(5 ft/6 ft 7 in/16 ft 5 in)

(without terminator)

SIMODRIVE 611
digital (2-tier
configuration)

6FX. 008-...

≤ 1.5 m (5 ft)

VPM¹⁾

6FX. 008 -...

Power cable see
"MOTION-CONNECT"
≤ 50 m (164 ft)

1FE/2SP1 motor
synchronous
technology

6FX. 008-...

Power cable see
"MOTION-CONNECT"
≤ 50 m (164 ft)

1PH/1PM/2SP1
motor asynchro-
nous technology

- 1) The VPM is only operational in conjunction with SIMODRIVE 611digital/universal and 1FE1 motors.
- 2) The maximum connection length on the drive bus is 10 m (32 ft 10 in).

SIMODRIVE 611 digital

X411/X412

Drive module with digital setpoint interface

High performance/ High standard control for 1FT6/1FK motors

X421/X422

X141/X341

U2, V2, W2

Order No.
Pre-assembled cable

6FX. 002-2EQ10-.... ≤ 50 m (164 ft)

6FX. 002-2CA31-.... ≤ 50 m (164 ft)

6FX. 002-2CA11-.... ≤ 50 m (164 ft)

6FX. 002-2CA11-.... ≤ 50 m (164 ft) SVE 6FX8 002-2CA41-.... ≤ 18 m³ (59 ft) / 5 m/10 m (16 ft 5 in/32 ft 10 in)

6FX. 002-2AD00-.... ≤ 50 m³ (164 ft)

6SN1 161-1CA00-.... (without terminator)

6SN1 161-1CA00-.... (without terminator)

6FX2 002-1CA01-.... (without terminator) ≤ 10 m⁴ (32 ft 10 in) 1 m/2 m/5 m/7 m (3 ft 3 in/6 ft 7 in/16 ft 5 in/ 23 ft)

6FX2 002-1CC00-.... 1.5 m/2 m/5 m (5 ft/6 ft 7 in/16 ft 5 in) (without terminator)

6FX. 002-... ≤ 50 m (164 ft)
Power cable see motors

Absolute encoder/
Single absolute encoder EnDat in 1FT6/1FK motor

Incremental encoder sin/cos 1 V_{PP} in 1FT6/1FK motor

Incremental encoder sin/cos 1 V_{PP} 6FX2001-3...

Direct linear incremental encoder sin/cos 1 V_{PP} LS 186 (C)/ LF 183 (C)/ LB 382 (C) LS 486 (C)/LF 481 (C)

Incremental encoder current signals²⁾ LS 103/LS 106 LS 706/LB 301 LS 406/LF 401

Rotary absolute encoder EnDat 6FX2001-5.E.

Direct linear absolute encoder EnDat LC 181 LC 481

SINUMERIK 840D inc. terminator

SIMODRIVE 611 digital MSD/FDD

NCU terminal block

SIMODRIVE 611 digital (2-tier configuration)

1FT6/1FK motor

Adapter cable¹⁾ 310128.. 310123..

Adapter cable¹⁾ 310130.. 310125..

Adapter cable¹⁾ 369124.. 369129..

NCU terminal block

6FX2 002-1CA01-.... ≤ 10 m⁴⁾ (32 ft 10 in) 1 m/2 m/5 m/7 m (3 ft 3 in/6 ft 7 in/16 ft 5 in/ 23 ft)

1) Cable can be ordered from the manufacturer of the linear scale.
 2) No longer use measuring systems with current signals for new applications. Voltage signals provide improved noise immunity and will replace the current signals.
 3) Less the length of the adapter cable.
 4) The maximum connection length on the drive bus is 10 m (32 ft 10 in).

SIMODRIVE 611 digital

Drive module with digital setpoint interface

High performance control

Order No.
Pre-assembled cable

X411

6FX5002-2CA31-.... ≤ 50 m (164 ft)

6FX8002-2CA31-.... ≤ 50 m (164 ft)

Connector box
1FN1910-
0AA20-0AA0

Adapter cable ¹⁾

310128..

310123..

Direct linear
incremental
encoder sin/cos 1 V_{PP}
LS 186 (C)
LS 486 (C)

Cable included
in Hall-effect sensor
box package content

Hall-effect sensor
box (option)

6FX7002-.... ≤ 50 m (164 ft)

Power cable
see motors

Linear motor
1FN1 with
temperature
sensor ²⁾

²⁾
6FX8008-1BD71-....
sold by the meter

Tripping device
3RN1

Error message

U2, V2, W2

²⁾
6FX7008-....
sold by the meter

from 16 mm²

6FX7002-5E...-....
1.5 ... 10 mm²

6FX7002-5YP...-....
1.5 ... 10 mm²

Power cable
see motors

Power cable
see motors

Linear motor
1FN3 with
temperature
sensor ²⁾

1) Cable can be ordered from the manufacturer of the linear scale.

2) The cables for the temperature sensor are run in the power cable 6FX700-.... and must be coupled out before the converter. The customer must make the connection.

SIMODRIVE 611 digital

Drive module with digital setpoint interface

X411

High performance control

U2, V2, W2

Order No.
Pre-assembled cable

6FX5002-2CH00-.... ≤ 50 m (164 ft)

6FX8002-2CH00-.... ≤ 50 m (164 ft)

6FX.002-2CG00-.... ≤ 50 m (164 ft)

6FX7002-... ≤ 50 m (164 ft)

6FX8008-1BD71-....

sold by the meter

6FX7008-... ≤ 50 m (164 ft)

1FN3: from 16 mm² sold by the meter

6FX7002-5E...-....

1.5 ... 10 mm²

6FX7002-5YP...-....

1.5 ... 10 mm²

Adapter cable ¹⁾

369124..

369129..

Adapter cable ¹⁾

310128..

310123..

Power cable
see motors

Tripping device
3RN1

Power cable
see motors

Power cable
see motors

Direct linear
absolute encoder

EnDat
LC 181

LC 481

Direct linear
incremental encoder

sin/cos 1 V_{PP}
LS 186 (C)

LS 486 (C)

Linear motor
1FN1 with
temperature
sensor ²⁾

Error message

Linear motor 1FN3/
Torquemotor 1FW6
with temperature
sensor ²⁾

Linear motor
1FN3 with
temperature
sensor ²⁾

1) Cable can be ordered from the manufacturer of the linear scale.

2) The cables for the temperature sensor are run in the power cable 6FX700-... and must be coupled out before the converter. The customer must make the connection.