

Transformer Protection SIPROTEC 7UT612

Product description Variants Order No.

Digital differential protection relay

for transformers, generators,
motors and short lines

Backlit, alphanumeric display with
four lines, 7 programmable LEDs,
navigation buttons, function buttons,
number block.

Housing, binary inputs and outputs, measuring transducer

Housing 1/3 19", 3 BI, 4 BO, 1 Life contact, 7 I, I_{EE}

Current transformer : I_N

1 A⁴⁾
5 A⁴⁾

Auxiliary voltage (power supply, binary input voltage)

DC 24 V to 48 V, trigger level 19 V²⁾
DC 60 V to 125 V¹⁾, trigger level 19 V²⁾
DC 110 V to 250 V¹⁾; AC 115/230 V, trigger level DC 88 V²⁾

Construction

Surface-mounting housing, terminals on top and bottom³⁾
Flush-mounting housing, plug-in terminal (2/3 pin connector)
Flush-mounting housing, screw-type terminal
(direct connection/ring-type cable lugs)

Region-specific default settings/ function versions and language settings

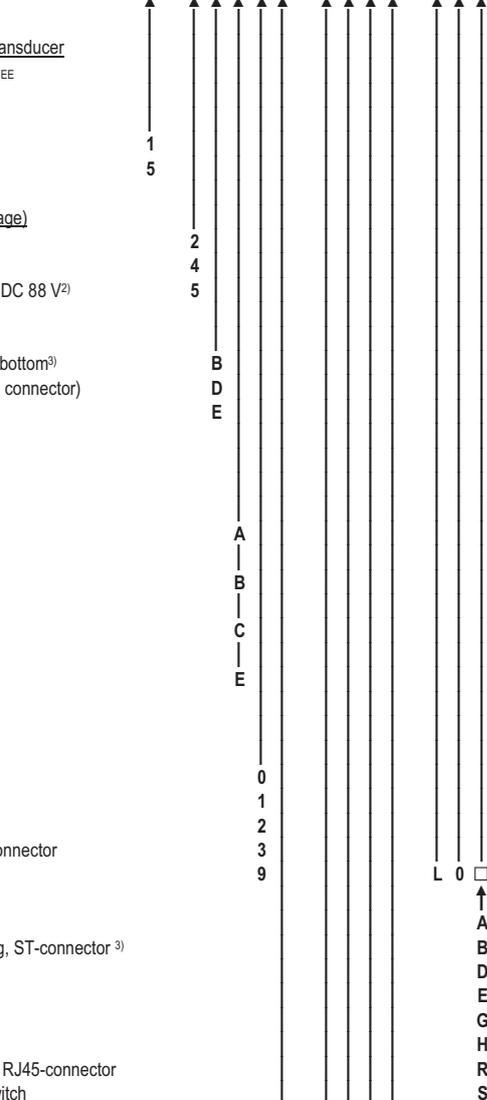
Region DE, 50/60 Hz, IEC,
language German (language changeable)
Region world, 50/60 Hz, IEC/ANSI,
language english (language changeable)
Region US, 60/50 Hz, ANSI,
language US-english (language changeable)
Region world, 50/60 Hz,
language (language changeable)

System port (on rear of device) Port B

No system port 0
IEC 60870-5-103 Protocol, electric RS232 1
IEC 60870-5-103 Protocol, electrical RS485 2
IEC 60870-5-103 Protocol, optical 820 nm, ST-connector 3
Further protocols see supplement L 9

PROFIBUS DP slave, RS485
PROFIBUS DP slave, optical 820 nm, double ring, ST-connector³⁾
Modbus, RS485
Modbus, optical 820 nm, ST-connector³⁾
DNP3.0, RS485
DNP3.0, optical 820 nm, ST-connector³⁾
IEC 61850, 100 Mbit Ethernet, electrical, double, RJ45-connector
IEC 61850, 100 Mbit Ethernet, with integrated switch
optical, double, LC-connector (EN100)⁴⁾

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 Short code



(continued on next page)

Protection
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- 1) Transition between the three auxiliary voltage ranges can be selected by means of jumpers.
- 2) The binary input thresholds are selectable in three steps by means of jumpers.
- 3) If position 9=B (surface-mounting housing) only with RS485 port available
- 4) If position 9=B (surface-mounting housing, 2-tier terminals on top/bottom), please order the relay with electrical interface and separate fibre-optic converter.
- 5) Rated current 1/5 A can be selected by means of jumpers.

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Protection
SIPROTEC 4

Product description	Variants	Order No.
Digital differential protection relay for transformers, generators, motors and short lines		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 7 U T 6 1 2 □ - □ □ □ □ - □ □ A 0
Backlit, alphanumeric display with four lines, 7 programmable LEDs, navigation buttons, function buttons, number block.	<u>DigsI 4/Browser/Port for Thermo-box, port C</u> no service interface DIGSI 4, Browser, electrical RS232 DIGSI 4 / Browser or Thermo-box ¹⁾ , electrical RS485 DIGSI 4 / Browser or Thermo-box ¹⁾ , optical 820 nm, ST-connector	0 1 2 3
(continued from previous page)	<u>Functionality</u> ANSI-No. Differential protection transformer, generator, motor, 87 T G M L Short line, autotransformer 49 Overload protection for one winding 86 Lockout function 50/51 Overcurrent protection (TOC phase): $I>$, $I>>$, I_p , Overcurrent protection $3 I_o$ and I_E	A
	<u>Additional functions</u> 87N Restricted earth fault low impedance 87N Restricted earth fault high impedance (without external varistor) sensitive Overcurrent protection / tank protection 46 Load unbalance protection 50BF Breaker failure protection 74TC Trip circuit supervision	B
	<u>Measuring and monitoring functions</u> Basic measured values, fault recording + transformer monitoring functions (hotspot according to IEC, overload factor) ¹⁾	1 4

1) Monitoring functions only available with external temperature measuring unit 7XV5662-AD10 (see section accessories communication). Connection on Port C or Port D