

Two Winding Transformer Differential Protection – 7UT82

Housing: 1/3 x 19", Flush mounting

Base function with hardware standard variant ¹⁾

W1: 1/3, 7 BI, 7 BO (6S, 1 Life contact), 8CT

Application templates/ Function points ²⁾

Two Winding Basic (0 function points)

Two Winding Basic with REF (30 function points)

Motor (Diff-Protection) (50 function points)

Warranty extension

Price per extra year of warranty

Communication

Integrated Ethernet interface RJ45 for DIGSI

Integrated Ethernet interface RJ45 for DIGSI, IEC 61850 incl.GOOSE

SIPROTEC 5 Plug-In Modules

Display, Housing, Key switch, LEDs etc.

Small display

Large display

Extra function points

Price per function point

1) Abbreviations:

Housing width in 19" fragments, with small display, with 16 LEDs

BI: Binary inputs

BO: Binary outputs

S: Standard relays, F: Fast relays

HS: High-speed relays, P: Power relays.

2) Available function scope acc. to catalog or function points calculator in the order configurator.

SIPROTEC 5 - Arc Protection

Product description	Order No.
Arc Protection	(Short Product Code)
Arc Protection Plugin Module (ARC-CD-3FO)	P1Z1966
Point Sensor 3 m	P1X19
Point Sensor 4 m	P1X28
Point Sensor 5 m	P1X37
Point Sensor 10 m	P1X46
Point Sensor 15 m	P1X55
Point Sensor 20 m	P1X64
Point Sensor 35 m	P1X82

SIPROTEC 5 - Interfaces

Product description	Order No. ¹⁾
<u>Plug-in modules for System Interface</u>	(Short Product Code)
USART-AB-1EL: 1 x electric 1 x electrical RS485, applicable for serial protocols, e.g. IEC60870-5-103, DNP3, RTD-unit and 20 mA unit	P1Z79
USART-AC-2EL: 2 x electric 2 x electrical RS485, applicable for serial protocols, e.g. IEC60870-5-103, DNP3, RTD-unit and 20 mA unit	P1Z437
USART-AD-1FO: 1 x opt. 1.5 km 1 x optic serial, 820 nm, ST-connector, 1.5 km over 62,5/125 µm multimode - fiber applicable for IEC 60870-5-103 (extended), DNP 3 serial and Protection interface (Sync. HDLC, IEEE C37.94)	P1Z62
USART-AE-2FO: 2 x opt. 1.5 km 2 x optic serial, 820 nm, ST-connector, 1.5 km over 62,5/125 µm multimode - fiber applicable for IEC 60870-5-103 (extended), DNP 3 serial and Protection interface (Sync. HDLC, IEEE C37.94)	P1Z48
ETH-BA-2EL: 2 x electrical Ethernet interfaces RJ45 plug, 100 Mbit/s integrated switch (for RSTP, PRP, HSR), applicable for IEC 61850, DNP3 TCP, IEC 60870-5-104 and IEEE C37.118 (Syncho-phasor)	P1Z55
ETH-BB-2FO: 2 x optical Ethernet interfaces LC-Duplex connector, 100 Mbit/s, integrated switch (for RSTP, PRP, HSR), applicable for IEC 61850, DNP3 TCP, IEC 60870-5-104 and IEEE C37.118 (Syncho-phasor)	P1Z390
<u>Plug-in module for various applications</u>	
ANAI-CA-4EL: 4x 20 mA ANAI-CA-4EL: 4 Analog inputs 20 mA, screw terminals	P1Z1137

1) The below-mentioned Ordering No. is applicable for a warranty period of 5 years. For extended warranty, please select the appropriate Ordering No. (Short product code) by using the online configurator.

Plug-in modules for Protection InterfaceOrdering No. ⁵⁾
(Short Product Code)

USART-AF-1LDFO: 1 x opt. 24 km (single-mode) / 4 km (multimode) 1 x optic serial, 1300 nm, LC duplex connector, 24 km over 9/125 µm singlemode – fiber, 4 km over 62,5/125 µm multimode - fiber applicable for Protection interface	P1Z758
USART-AW-2LDFO: 2x opt. 24 km (single-mode) / 4 km (multimode) 2 x optic serial, 1300 nm, LC duplex connector, 24 km over 9/125 µm singlemode – fiber, 4 km over 62,5/125 µm multimode - fiber applicable for Protection interface	P1Z772
USART-AG-1LDFO: 1 x opt. 60 km 1 x optic serial, 1300 nm, LC duplex connector, 60 km over 9/125 µm singlemode – fiber applicable for Protection interface	P1Z468
USART-AU-2LDFO: 2 x opt. 60 km 2 x optic serial, 1300 nm, LC duplex connector, 60 km over 9/125 µm singlemode – fiber applicable for Protection interface	P1Z239
USART-AK-1LDFO: 1x opt. 100 km 1 x optic serial, 1550 nm, LC duplex connector, 100 km over 9/125 µm singlemode – fiber applicable for Protection interface	P1Z888
USART-AV-2LDFO: 2 x opt. 100 km 2 x optic serial, 1550 nm, LC duplex connector, 100 km over 9/125 µm singlemode – fiber applicable for Protection interface	P1Z741
USART-AH-1LDFO: 1x opt.,bidir. 1 x optic serial, bidirectional via 1 common fiber, 1300 nm/1550 nm (Tx/Rx), LC simplex connector, 40 km over 9/125 µm singlemode – fiber ¹⁾ applicable for Protection interface	P1Z765
USART-AJ-1LDFO: 1x opt.,bidir. 1 x optic serial, bidirectional via 1 common fiber, 1550 nm/1300 nm (Tx/Rx), LC simplex connector 40 km over 9/125 µm singlemode – fiber ²⁾ applicable for Protection interface	P1Z1007
USART-AX-2LDFO: 2x opt.,bidir. 2 x optic serial, bidirectional via 1 common fiber, 1300 nm/1550 nm (Tx/Rx), 2 x LC simplex connector, 40 km over 9/125 µm singlemode – fiber ³⁾ applicable for Protection interface	P1Z802
USART-AY-2LDFO: 2x opt.,bidir. 2 x optic serial, bidirectional via 1 common fiber, 1550 nm/1300 nm (Tx/Rx), 2x LC simplex connector, 40 km over 9/125 µm singlemode – fiber ⁴⁾ applicable for Protection interface	P1Z789

Warranty extension

price per extra year of warranty (applicable for each plug-in module)

- 1) USART-AH-1LDFO only in conjunction with USART-AJ-1LDFO or USART-AY-2LDFO at the remote end.
- 2) USART-AJ-1LDFO only in conjunction with USART-AH-1LDFO or USART-AX-2LDFO at the remote end.
- 3) USART-AX-2LDFO only in conjunction with USART-AJ-1LDFO or USART-AY-2LDFO at the remote end.
- 4) USART-AY-2LDFO only in conjunction with USART-AH-1LDFO or USART-AX-2LDFO at the remote end.
- 5) The below-mentioned Ordering No. is applicable for a warranty period of 5 years. For extended warranty, please select the appropriate Ordering No. (Short product code) by using the online configurator.