Line Differential Protection SIPROTEC 7SD52, 75D53

Combined multi- end line		Variants				Order No.								
	differen	tial protection w	ith distance	protection		2 3 4 5 6 SD5□□	67]].		10 1			14 15		
		$\frac{\text{Device type}^{1)}}{\text{Two-terminal dill}}$ $\frac{\text{Two-terminal dill}}{\text{Multi-terminal dill}}$ $\frac{Measurement in}{I_{ph}} = 1 \text{ A}^{2}, I_{e} = 2$ $I_{ph} = 5 \text{ A}^{2}, I_{e} = 5$ $\frac{Auxiliary voltage}{\text{DC } 24 \text{ V to } 48}$ $\frac{DC 60 \text{ V to } 125}{\text{DC } 110 \text{ V to } 25}$ $\frac{DC 220 \text{ V to } 25}{100 \text{ V to } 25}$	fferential rela fferential rela fferential rela fferential rela <u>uput</u> 1 A ²⁾ sensitive (mir 5 A ²⁾ sensitive (mir $\frac{1}{2}$ (Power sup V ³), trigger lev V ³⁾ , trigger lev 0 V ³⁾ , AC 115	y with 4-line dia y with grapical with 4-line dia y with graphica n. = 0,005 A) n. = 0,005 A) ply, BI trigger I binary input vel binary input	splay display isplay al display evel) 19 V ⁴⁾ it 19 V ⁴⁾ el binary input	▲ ▲ ↓ ↓ 2 3 2 3 3 3 3 3 3 3 3 4 1 1 1 1 1 1 1 1 1 1 1	2 2 3	2 4 5 6						Drotontion
, ,	Fast relays ⁵⁾	High Speed ⁶⁾ trip outputs	Housing width referred to 19"	Flush- mounting housing / Screw term	Flush- mounting housing / plug-in	Surface- mounting housing / screw			-		-			
contact				terminals	terminals	terminals	_							
	12	-	1/2	•			_	A						
	12 12	-	1/2 1/2				_	E						
0 4	12	-	1/2		-		-	Ĭ						
16 12	12	-	1/1				_	Ċ	;					
	12	-	1/1				_	G	;					
16 12	12	-	1/1				_	L	.					
16 4	15	5	1/1				_	I N						
	15	5	1/1	-			_	G						
	15	5	1/1			_	_	S						
							_							
	12 12	-	1/1 1/1				_	D H						
	12	-	1/1			•	_	N						
							_	Ĩ						
	15	5	1/1				_	P						
	15	5	1/1				_	F						
24 12 24 4	15 18	5 10	1/1 1/1				_	T V						

(continued on next page)

1) Redundant prot. data interface for Hot-Standby-service is possible with a two terminal differential relay (second prot. data interface is needed)

2) Rated current 1/5A can be selected by the means of jumpers.

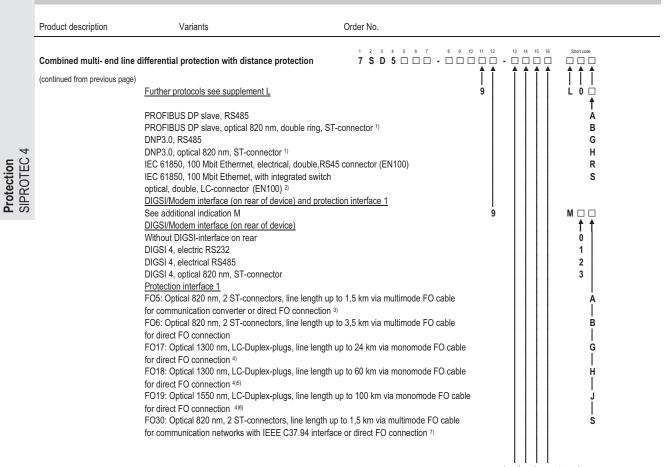
3) Transition between three auxiliary voltage ranges can be selected by means of jumpers.

4) The binary input thresholds are selectable in three stepy by means of jumpers.

5) Fast relays are indentified in the in the terminal diagram. The time advantage compared with signal/command outputs is approx. 3ms, mainly for protection commands

6) High-speed trip outputs are indentified in the in the terminal diagram. The time advantage compared with Fast relays is approx. 5ms

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(continued on next page)

 Not possible for Surface-mounting housing (OrderNo. pos. 9 = E/G/H/Q/R). For the surface mounted version, please order a device with the appropriate electrical RS485 interface and an external FO-converter

2) Not possible for Surface-mounting housing (OrderNo. pos. 9 = E/G/H/Q/R) please order the relay with electrical interface and use a separate fiber-optic switch.

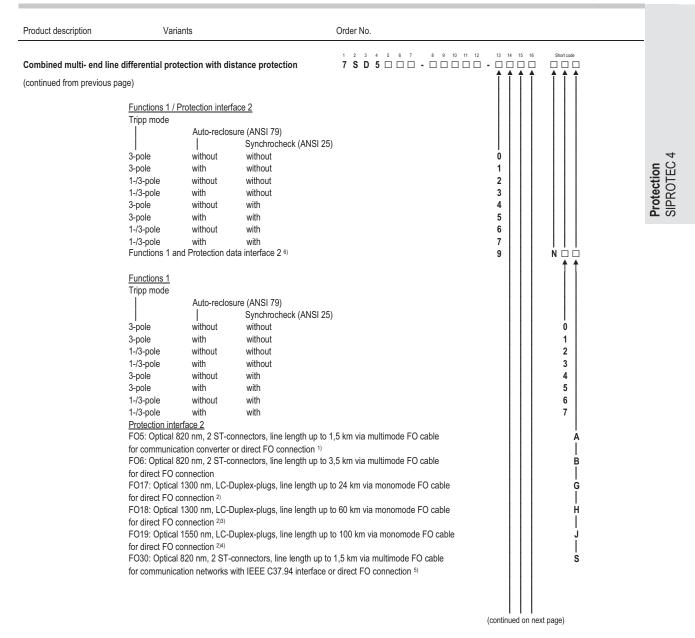
3) Communication converter 7XV5662, see accessories.

- 6) For distances less than 50km a set of optical attenuators 7XV5107-0AA00 must be installed to avoid saturation of the receiver element
- 7) Only available in flush-mounting housing (OrderNo. pos. $9 \neq E/G/H/Q/R$).

⁴⁾ Device for Surface-mounting housing ((OrderNo. pos. 9 = E/G/H/Q/R) will be delivered with external repeater 7XV5461-0Bx00.

⁵⁾ For distances less than 25km a set of optical attenuators 7XV5107-0AA00 must be installed to avoid saturation of the receiver element

Line Differential Protection SIPROTEC 7SD52, 7SD53



1) Communication converter 7XV5662, see accessories.

- 2) Device for Surface-mounting housing ((OrderNo. pos. 9 = E/G/H/Q/R) will be delivered with external repeater 7XV5461-0Bx00.
- 3) For distances less than 25km a set of optical attenuators 7XV5107-0AA00 must be installed to avoid saturation of the receiver element

4) For distances less than 50km a set of optical attenuators 7XV5107-0AA00 must be installed to avoid saturation of the receiver element

- 5) Only available in flush-mounting housing (OrderNo. pos. $9 \neq E/G/H/Q/R$).
- 6) In a two termial differential relay the protection interface 2 can be used as redundant protection interface (Hot Standby)

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	Product descr	roduct description Variants			Order No.	
	(continued from	previous page)			1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 7 S D 5	
tion TEC 4		Overcurrent protection/ Breaker failure protection (ANSI 50, 50N, 51, 51N, 50BF) Earth fault protection (ANSI 67N) Distance protection (Pickup Z< Power Swing detection (ANSI 2 Distance protection (ANSI 2			, polygon, MHO, parallel line comp.) 11, 21N, 68, 68T) otection (Ipickup I>,-UI/Phi, -Z<), arallel line comp. ² , power swing det. (ANSI 21, 21N, 68, 68T)	
Protection SIPROTEC 4					Earth fault detection for isolated/compensated networks ¹⁾	
	with	without	without	without	without c	
	with	without	without	with	without D	
	with	without	with	without	without E	
	with	with	without	without	without F	
	with	with	without	with	without G	
	with	with	with	without	without H	
	with	without	without	without	with J	
	with	without	without	with	with K	
	with	with	without	without	with L	
	with	with	without	with	with M	
	Additional fu		mote indications			
	4 Remote con	Transformer e				
			Fault locator			
				Voltage prote	tection, frequence protection (ANSI 27, 50)	
					Restricted earth fault low impedance (ANSI 87N) ²⁾	
	with	without	1-side measuring	without	without J	
	with	without	1-side measuring	with	without K	
	with	without	2-side measuring	without	without L	
	with	without	2-side measuring	with	without M	
	with	with	1-side measuring	without	without N	
	with	with	1-side measuring	with	without P	
	with	with	2-side measuring	without	without Q	
	with	with	2-side measuring	with	without R	
	with	with	1-side measuring	without	with S	
	with	with	1-side measuring	with	with T	
	with with	with with	2-side measuring 2-side measuring	without with	with U with V	
	Additional fu		2-side measuring	with	with V	
			Min/Max values			
			synchronization			
			Capacitive Current	load compen	nsationa	
	without	without	without		0	
	without	with	without		1	
	with	without	without		2	
	with	with	without		3	
	withou	without	with		4	
	without	with	with		5	
	with	without	with		6	
	with	with	with		7	

1) Only available with OrderNo. Pos. 7 = 2 or 6

2) Only available with OrderNo. Pos. 7 = 1 or 5