Motor Protection
SIPROTEC 7SK80

Product description	Variants	Order No.

Motor protection device

Order No. positions:
```
1 2 3 4 5 6 7   8 9 10 11 12   13 14 15 16   Short code
7 S K 8 0 □ □ - □ □ □ □ □ - □ □ □ 0        □ □ □
```

<u>Housing, binary inputs and outputs</u>
Housing 1/6 19", 4 x I, 3 BI, 5 BO [1], 1 Life contact — **1**
Housing 1/6 19", 4 x I, 7 BI, 8 BO [1], 1 Life contact — **2**
Housing 1/6 19", 4 x I, 3 x V, 3 BI, 5 BO [1], 1 Life contact — **3**
Housing 1/6 19", 4 x I, 3 x V, 7 BI, 8 BO [1], 1 Life contact — **4**
Housing 1/6 19", 4 x I, 3 BI, 5 BO [1], 1 Life contact
5 RTD inputs — **5**
Housing 1/6 19", 4 x I, 3 x V, 3 BI, 5 BO [1], 1 Life contact
5 RTD inputs — **6**
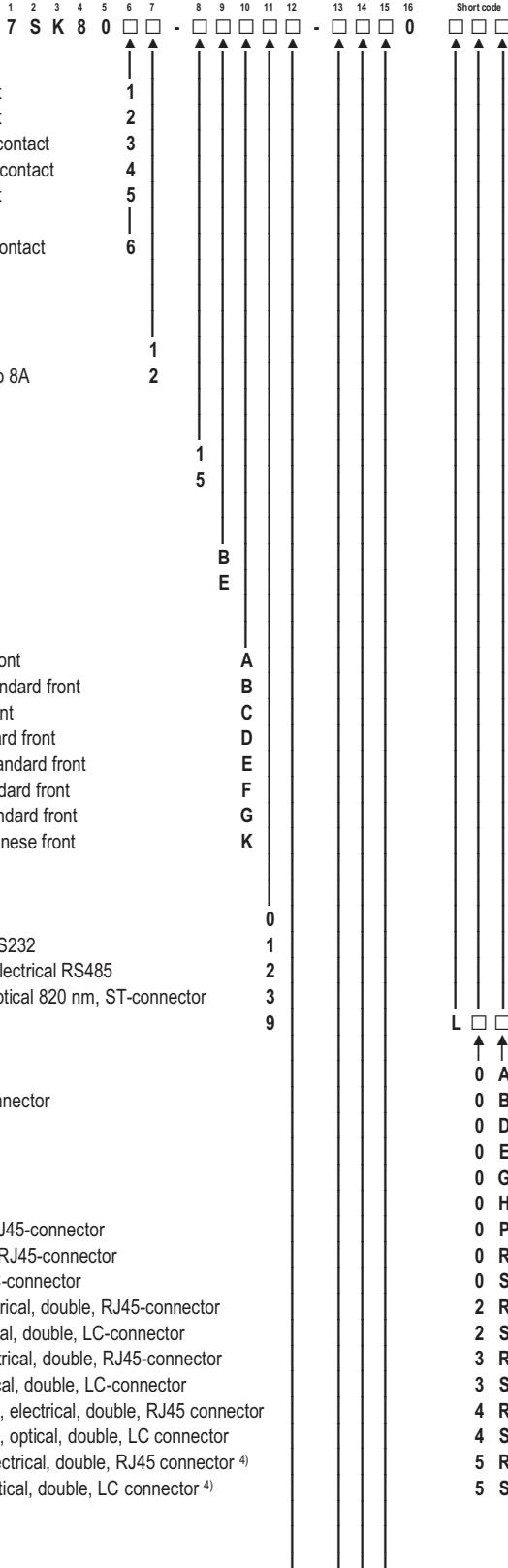
<u>Measuring inputs, default settings</u>
I_{ph} = 1A/5A, I_e = 1A/5A — **1**
I_{ph} = 1A/5A, I_{ee} (sensitive) = 0,001 to 1,6A/0,005 to 8A — **2**

<u>Auxiliary voltage</u>
DC 24 V to 48 V — **1**
DC 60 V to 250 V; AC 115 V; AC 230 V — **5**

<u>Construction</u>
Surface-mounting housing, screw-type terminal — **B**
Flush-mounting housing, screw-type terminal — **E**

<u>Region-specific default- and language settings</u>
Region DE, IEC, language German [2], standard front — **A**
Region World, IEC/ANSI, language English [2], standard front — **B**
Region US, ANSI, language US-English [2], US front — **C**
Region FR, IEC/ANSI, language French [2], standard front — **D**
Region World, IEC/ANSI, language Spanish [2], standard front — **E**
Region World, IEC/ANSI, language Italian [2], standard front — **F**
Region RUS, IEC/ANSI, language Russian [2], standard front — **G**
Region CHN, IEC/ANSI, language Chinese [3], Chinese front — **K**

<u>Port B (at bottom of device, rear)</u>
No port — **0**
IEC 60870-5-103 or DIGSI 4/modem, electrical RS232 — **1**
IEC 60870-5-103, DIGSI 4/modem or RTD-box, electrical RS485 — **2**
IEC 60870-5-103, DIGSI 4/modem or RTD-box, optical 820 nm, ST-connector — **3**
Further protocols see supplement L — **9** ... **L □ □**

PROFIBUS DP slave, electrical RS485	**0**	**A**
PROFIBUS DP slave, optical, double ring, ST-connector	**0**	**B**
Modbus, electrical RS485	**0**	**D**
Modbus, optical 820 nm, ST-connector	**0**	**E**
DNP3, electrical RS485	**0**	**G**
DNP3, optical 820 nm, ST-connector	**0**	**H**
IEC 60870-5-103, redundant, electrical RS485, RJ45-connector	**0**	**P**
IEC 61850, 100 Mbit Ethernet, electrical, double, RJ45-connector	**0**	**R**
IEC 61850, 100 Mbit Ethernet, optical, double, LC-connector	**0**	**S**
DNP3 TCP + IEC 61850, 100 Mbit Ethernet, electrical, double, RJ45-connector	**2**	**R**
DNP3 TCP + IEC 61850, 100 Mbit Ethernet, optical, double, LC-connector	**2**	**S**
PROFINET + IEC 61850, 100 Mbit Ethernet, electrical, double, RJ45-connector	**3**	**R**
PROFINET + IEC 61850, 100 Mbit Ethernet, optical, double, LC-connector	**3**	**S**
IEC 60870-5-104 + IEC 61850, 100 Mbit Ethernet, electrical, double, RJ45 connector	**4**	**R**
IEC 60870-5-104 + IEC 61850, 100 Mbit Ethernet, optical, double, LC connector	**4**	**S**
Modbus TCP + IEC 61850, 100 Mbit Ethernet, electrical, double, RJ45 connector [4]	**5**	**R**
Modbus TCP + IEC 61850, 100 Mbit Ethernet, optical, double, LC connector [4]	**5**	**S**

(continued on next page)

---

[1] 2 changeover/Form C.
[2] Language selectable.
[3] Language not changeable.
[4] From Version 4.74.

Product description	Variants	Order No.

Order No. positions: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16   Short code

7 S K 8 0 □□ - □□□□□ - □□□ 0   □□□□

Motor protection device
(continued from previous page)

Port A (at bottom of device, in front)
No port — **0**
With Ethernet interface (DIGSI, RTD box, I/O-Unit, not IEC61850), RJ45-connector — **6**

Measuring / fault recording
With fault recording — **1**
With fault recording, average values, min/max values — **3**

ANSI-No.

Basic version (contained in all options)			
50/51	Overcurrent protection phase I>, I>>, I>>>, I$_p$	**H D**	[2]
50N/51N	Overcurrent protection ground I$_E$ >, I$_E$ >>, I$_E$ >>>, I$_{Ep}$		
50N(s)/51N(s) [1]	Sensitive ground fault protection I$_{EE}$ >, I$_{EE}$ >>, I$_{EEp}$		
	Intermittent ground fault protection		
49	Overload protection		
74TC	Trip circuit supervision		
50BF	Circuit breaker failure protection		
46	Negative sequence / unbalanced load protection		
86	Lockout		
48	Starting time supervision		
37	Undercurrent monitoring		
66/86	Restart inhibit		
14	Locked rotor protection		
51M	Load jam protection		
	Motor statistics		
	Parameter changeover		
	Monitoring functions		
	Control of circuit-breaker		
	Flexible protection functions (current parameters)		
	Inrush restraint		

Directional sensitive ground fault, voltage and frequency protection + Directional intermittent ground fault protection ■				
51V	Voltage dependent inverse-time overcurrent protection	**H E**	[3]	
67N	Directional overcurrent protection ground, I$_E$>, I$_E$ >>, I$_E$ >>>, I$_{Ep}$			
67N(s) [1]	Directional sensitive ground fault protection, I$_{EE}$>, I$_{EE}$ >>, I$_{EEp}$			
67Ns [4]	Directional intermittent ground fault protection			
64/59N	Displacement voltage			
27/59	Under-/overvoltage			
81U/O	Under-/overfrequency, f<, f>			
47	Phase rotation			
27R/32/55/59R/ 81R	Flexible protection functions (current and voltage parameters)): Protective function for voltage, power, power factor, rate-of-frequency change, rate-of-voltage change			

		Short code
ATEX100-certification with ATEX100-certification [5] for protection of explosion-proved machines of increased-safety type "e"		**Z X 9 9**
Conformal coating [6]		**Z Y 1 5**
Conformal coating [7]		**Z Y 1 6**

■ Basic version included.

1) Depending on the ground current input the function will be either sensitive (I$_{EE}$) or non-sensitive (I$_E$).
2) Only with position 6 = **1**, **2** or **5**.
3) Only with position 6 = **3**, **4** or **6**.
4) Function only available with sensitive ground current input (Position 7 = **2**).
5) If no ATEX100-certification is required, please order without the order No. extension - **ZX99**.
6) Only with position 6 = 1 or 3
7) Only with position 6 = 2, 4, 5 or 6