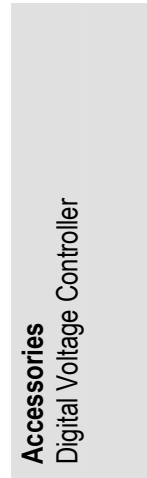


Product description	Variants	Order No.	Price in EUR
<p>TAPCON 230 Basic/ Pro/ Expert</p> <p>Digital Voltage Controller 6GC61</p> <p><u>Utilization:</u> Transformer voltage controller</p> <p><u>Function:</u> integrated tap position capture, measuring function (U, I, P, Q, S, cos phi, phi, I sin phi, f), record function statistic function (number of taps, number per tap position), free-programmable in- and outputs, supervision of all tap changer functions, limit values supervision (>U, <U, >I), rated value of voltage and current settable</p> <p><u>Appointments:</u> Display 128x128 LCD-Module negativ blue Backlight LED white, 9 free-programmable LED's, status LED, Life contact, navigation keys, function keys, TAPCON-trol® visualization and engineering software, USB-Converter for visualization and engineering</p> <p><u>Housing: binary inputs and outputs</u> Steel panel - surface mounting with window; 8 BI, 7 BO, 1 Life contact</p> <p><u>Additional auxiliary voltage supply</u> AUX DC OUT without additional auxiliary voltage 70 - 210 VDC signal voltage ³⁾</p> <p><u>Power supply (voltage supply, signal voltage)</u> AC 110 V...350 V/ DC 88 V... 265 V (Standard)</p> <p><u>Installation (terminal connection "EASY-Cable")</u> flush mounting surface mounting with wall fastening panel DIN rail mounting</p> <p><u>Region specific presetting/ functional characteristic</u> German English French Spanish Russian Italian Portuguese</p> <p><u>Communication interface</u> without interface CI-Card (communication interface)</p> <p><u>IEC-61850 Card (communication interface)</u> <u>+Tap position capture)</u> without interface IEC 61850, electrical RJ45 and optical LWL LC-connector 1310nm ²⁾</p> <p><u>Additional measured data storage</u> without</p> <p><u>Tap position capture</u> no functions Digital signal via BCD - Code, Gray - Code, Dual-Code Analog signal 4 - 20 mA Analog signal over resistor contact range N/O contact range (external module) (definition of tap position is necessary)</p> <p><u>Setting voltage level remotely</u> no functions 4 - 20 mA ¹⁾ Resistor contact range ¹⁾</p> <p><u>Accessories optical Fiber - adapter cable</u> no accessories adapter cable for optical Fiber connection LC to ST</p>	<p>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 Short code</p> <p>6 G C 6 1 □ □ - □ □ □ □ - □ □ □ □ □ □ □ □</p> <p>↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑</p> <p>1</p> <p>0</p> <p>1</p> <p>1</p> <p>A</p> <p>B</p> <p>C</p> <p>A</p> <p>B</p> <p>C</p> <p>D</p> <p>E</p> <p>F</p> <p>G</p> <p>0</p> <p>9</p> <p>0</p> <p>1</p> <p>0</p> <p>A</p> <p>B</p> <p>C</p> <p>D</p> <p>Z</p> <p>A</p> <p>B</p> <p>C</p> <p>0</p> <p>1</p> <p>L □ □</p> <p>↑ ↑ ↑</p> <p>See next page</p> <p>P 1 Y</p>		

(continued on next page)

1) Pos.15 only in relation with digital tap position capture Pos.14.
 2) Not possible with Pos.11=9.
 3) Pos. 7 only from Pos. 14 available



Product description	Variants	Order No.	Price in EUR
TAPCON 230 Basic/ Pro/ Expert Digital Voltage Controller 6GC61 (continued from previous page)	<u>Communication interface</u> without interface CI-Card (communication interface) Electrical RS232/ RS485 Electrical RJ45/ Ethernet Optical fiber SMA plug 850 nm Optical fiber SMA plug 660 nm Optical fibre ST plug 850 nm Optical fibre ST plug 660 nm	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 Short code 6 G C 6 1 □ - □ □ □ □ □ - □ □ □ □ L □ □ ↑ 0 9	↑ □ □ ↑ 1 2 3 4 5 6 A B D E F G
	<u>Available communication interfaces +</u> <u>Tap position capture (Pos.14)</u> IEC 60870-5-101 ¹⁾ IEC 60870-5-103 ¹⁾ DNP3 Modbus ASCII ¹⁾²⁾ Modbus RTU ²⁾ TAPCON-trol® (visualization software)		

Accessories
 Digital Voltage Controller

1) not with Pos.11 L2x available.
 2) not Modbus TCP.

Product description	Variants	Order No.	Price in EUR
TAPCON ISM Digital Voltage Controller 6GC64		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 6 G C 6 4 □ □ - □ □ □ □ □ □ - □ □ □ □ □ □	
<u>Utilization:</u> Transformer voltage controller	<u>Housing: binary inputs and outputs</u> 19" rack1/1 (84TE), 1ph measuring 19" flush panel mounting 1/1 (84TE), 1ph measuring	↑ 1 2 3 4	
<u>Functions:</u> 19" Housing Standard 3 setting voltage level remotely User I/O, RJ45, RS232, RS485	19" rack1/1 (84TE) , 3ph measuring 19" flush panel mounting 1/1 (84TE), 3ph measuring		
<u>Current transformer In:</u> 1/5 A (selectable via Software)	<u>Power supply (voltage supply, signal voltage)</u> AC/DC 85 – 265 V DC 23 – 63 V	1 2	
	<u>Analog inputs/ outputs</u> without analog canal 1 analog canal 2 analog canal 3 analog canal 4	0 1 2 3 4	
	<u>Setting voltage level remotely via digital and analog input</u> 3 digital set point values 5 digital set point values 1 analog set point values TAPCON Dynamic Setpoint Control 1 digital set point values Set point values BCD-Code 3x TAPCON Dynamic Setpoint Control If Pos9=C then must Pos8 minimum =1	A B C D E F G	
	<u>Language /Documentation</u> German English French Spanish Russian Italian Portuguese Korean Chinese	A B C D E F G H J	
	<u>Interface for remote control parameterization</u> without electrical RJ45/ Ethernet optical fibre 1310nm optical fibre 1310nm only with communication interface Pos11=L8	0 1 2 3	

(continued on next page)

Accessories
Digital Voltage Controller

Product description	Variants	Order No.	Price in EUR
TAPCON ISM		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Short code
(continued from previous page)		6 G C 6 4 □ □ - □ □ □ □ - □ □ □ □	L □ □
	<u>Communication interfaces</u>		
	No communication	0	
	Communication interface	9	□ □
	electrical RS232		1
	electrical RS485		2
	electrical RJ45/ Ethernet		3
	optical fibre SMA-plug 850 nm		4
	optical fibre SMA-plug 660 nm		5
	optical fibre ST-plug 850 nm		6
	optical fibre ST-plug 660 nm		7
	optical fibre LC-plug 1310 nm		8
	optical fibre LC-plug PRP 1310 nm		9
	optical fibre LC-plug HSR 1310 nm		0
	<u>Available Communication protocols</u>		
	IEC 60870-5-101		A
	IEC 60870-5-103		B
	IEC 60870-5-104		D
	DNP 3.0		E
	Modbus TCP		F
	Modbus RTU		G
	IEC 61850 Standard		H
	IEC 61850 Expert + Goose + MSV		J
	<u>Position Indication</u>		
	without	0	
	- digital BCD - Code	1	
	- analog Signal 4 - 20 mA ¹⁾	2	
	- analog Signal 0 - 10 V ¹⁾	5	
	- Analog signal over resistor contact range ¹⁾	6	
	- Decade contact range 2)	7	
	- DUAL	8	
	- N/O contact range (external modul)	9	
	(definition of tap position is necessary)		
	If Pos13=2-6 than should Pos8 min. =1		
	<u>Additional measured data storage</u>		
	without		
	with measured data storage	A	
		B	
	<u>Parallel mode</u>		
	CAN-BUS incl. connecting plug		A
	Goose		B
	Without parallel mode		C
	Parallel mode UK TAPP Stagger		D
	<u>Additional functions</u>		
	No functions		1
	Parallel bank operation ²⁾		2
	Cross-monitoring ²⁾		3
	Three winding transformer ²⁾		4
	TAPGUARD		5
	BCD tap position output ²⁾		6
	Topology Master ²⁾ (plant topology overview required)		7
	Topology Client ²⁾ (plant topology overview required)		8
	TAPCON Personal Logic Editor		9
			R 0 A

Accessories
Digital Voltage Controller

1) One analog channel at position 8 pre-allocated 2.
2) Limitation: short-code L4-9 PRP-Switch/ Protocoll converter or analog modul selectable.

