

Teknisk specifikation REG-DP

REG-DP

- Only one code of the same capital letter is possible
- When the capital letter is followed by number 9, further details are necessary
- The code can be omitted when the capital letter is followed by zero
- An X code e.g. XP1 cannot be combined freely with other codes

Automatic Controller for Petersen-Coils REG-DP

CHARACTERISTIC	CODE			
Automatic Resonance Controller for Petersen-Coils (28TE, 3HE) with resistance control, parallel control, long time recording and logbook 16 binary inputs (14 fully programmable); 10 relay outputs (7 fully programmable), status relay; current input (I _r = 1 A or 5 A), COM 1, COM 2, COM 3 for current injection and software WinREG for parameter setting; inclusive zero modem cable	REG-DP			
Design	plug-in unit B01 wall mounting case (49TE) with wiring B02 panel mounting (30TE) with wiring B03 wall mounting / panel mounting case (30TE/49TE) with wiring (upon arrangement) B91 19" rack with wiring (upon arrangement) B92			
Power supply (from external source)	AC 85V ... <u>110V</u> ... 264V / DC 88V ... <u>220V</u> ... 280V H1 AC 85V ... <u>110V</u> ... 264V / DC 88V ... <u>220V</u> ... 280V (20W) H11 Please note: H11 is meant for REG-PE with FO! DC 18V ... <u>60V</u> ... 72V H2			
Parallel control	communication via E-LAN K0 distributed controllers and communication without E-LAN K1			
Analogue outputs	without E00 please indicate measuring range i.e. scaling with E90 output 1 zero sequence voltage U ₀ output 2 position of Petersen coil I _{pos} output 3 current through the Petersen coil I _p			
Connection to SCADA systems	without (continue with code "Y") XW0 with integrated protocol interface (continue with code "XL") XW1 with external protocol interface via REG-P, -PE, -PED, -PM (continue with code "Y") XW9			
Integrated protocol interface card	for control connection of one REG-DP only XL1 for the control connection of more than one system XL9 Please note: code XL9 only in combination with XZ16...XZ21, XZ91			

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Automatic Controller for Petersen-Coils REG-DP

CHARACTERISTIC	CODE			
Type of Connection Copper conductors RS 232, rotary level position RS 485, two wire operation only Fibre optic; connection with FSMA glass (wavelength 800...900 nm, distance < 2000 m) plastic (wavelength 620...680 nm, distance < 50 m) Fibre optic; connection with ST glass (wavelength 800...900 nm, distance < 2000 m) plastic (wavelength 620...680 nm, distance < 50 m) <i>Please note: XV13..XV19 only with B02..B92.</i>	XV10			
	XV11			
	XV13			
	XV15			
	XV17			
	XV19			
Protokoll only changeable with code XL1 and XL9 IEC 60870-5-103 for ABB IEC 60870-5-103 for Areva IEC 60870-5-103 for SAT IEC 60870-5-103 for Siemens LSA/SAS IEC 60870-5-103 for Sprecher Automation IE 60C870-5-103 for others IEC 60870-5-101 for ABB IEC 60870-5-101 for IDS IEC 60870-5-101 for SAT IEC 60870-5-101 for Siemens (LSA/SAS) IEC 60870-5-101 for all others DNP V 3.0 SPABUS MODBUS RTU	XZ10			
	XZ11			
	XZ12			
	XZ13			
	XZ14			
	XZ90			
	XZ15			
	XZ17			
	XZ18			
	XZ19			
	XZ91			
	XZ20			
	XZ22			
	XZ23			
Local/ remote function via front keypad without with	Y0			
	Y1			
Status output closes in case of malfunction opens in case of malfunction	U0			
	U1			
Operating manual German English language on agreement	G1			
	G2			
	G9			
Language on display same language as in the operating manual German English language on agreement	A0			
	A1			
	A2			
	A9			

Teknisk specifikation REG-DP

Automatic Controller for Petersen-Coils REG-DP					
CHARACTERISTIC	CODE				
Software and accessories for REG-DP (Continuation)					
Current injection for 2 fixed frequencies consisting of Thyristor-actuator, controller and inductance Please note: The current injection is only applicable if the measured value of zero sequence voltage and of current are derived from the primary side of the coil	CIF				
Design mountingplate for 19" control cubicle standard case for internal mounting ca. 800 x 800 x 300 mm standard case for external mounting ca. 800 x 800 x 300 mm other cases on request	C1 C2 C3 C9				
Additional to REG-DP					
Additional operating manual	G1 or G2				
KNOSPE resistance control	KNOSPE				
Cable for parameter setting and loading REG-P	582.020C				
Tester for serial interfaces	REG-TR				
Tele- and Least-Line-Modem for PC, power supply AC20..264V/ DC14..280V	111.9030.17				
TCP/IP Adapter					
TCP/IP Adapter; bit rate 10 Mbit	REG-COM				
Design DIN-rail 35 mm plug-in unit (8TE, 3HE) plug-in unit (8TE, 3HE)	with power supply unit AC 230 V with power supply unit AC 85 V...110 V...264 V and DC 88 V...220 V...280 V with power supply unit DC 18 V...60 V...72 V	A01 A02 A03			
TCP/IP Adapter; with extended bit rate 100 Mbit	A90				
Fibre optic-module					
Fibre optic-module	Modul 1				
Type of connection ST-connection (glass or plastic fibre) FSMA-connection (glass or plastic fibre)	A90 A91				

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Protocol Interface Units REG-DP, EOR-D

CHARACTERISTIC	CODE			
Protocol interface unit (6TE, 3HE) for connection of Petersen- Controller REG-DP and Ground Fault Relay EOR-D to SCADA to a system according to IEC Protocols ...-101/...-103 and DNP 3.0 <i>Please note: REG-P can also be used as COM-Server</i>	REG-P			
Protocol interface unit (6TE, 3HE) for connection of Petersen- Controller REG-DP and Ground Fault Relay EOR-D to SCADA to a system according to protocols IEC 61850 or IEC 60870-5-104 with REGConfig <i>Please note: REG-PE can also be used as COM-Server</i>		REG-PE		
Protocol interface unit (8TE, 3HE) for connection of Petersen- Controller REG-DP and Ground Fault Relay EOR-D to SCADA to a system according to protocols IEC 61850 or IEC 60870-5-104 with Power PC MPC 885, 16MB flash, 32MB RAM with 2 COMs incl. Parametrization tool REGConfig could also be used as a COM-Server Please note: REG-PED could also be used as data concentrator (...103 ==> ..101) or as a Router: (...101 =>...104 or IEC61850 server =>...103 client)			REG-PED	
Protocol interface unit for connection of Petersen-Controller REG-DP and Ground Fault Relay EOR-D to MODBUDS and SPABUS				REG-PM
Design plug-in unit wall mounting version (20TE) wired installation with other REGSys-components	B1 B2 B9	B1 B2 B9	B1 - B9	B1 B2 B9
Power Supply AC 85V... <u>110V</u> ...264V / DC 100V... <u>220V</u> ...280V DC 18V... <u>60V</u> ...72V	- -	- -	H0 H1	- -
Type of instrumentation and control connection as Com-Server only cont. with feature group "G" for connection of one REG-DP for connection EOR-D for connection of combinations of REG-DP, REG-D/DA, EOR-D...	L0 L2 L3 L9	L0 L2 L3 L9	L0 - - -	- L2 L3 L9
Type of connection Copper conductors RS 232 RS 485; two-wire operation only 4 x RS 232/RS485 <i>Please note: V13...V91 only in combination with B2 or B9 for all other cases chose a suitable fibre optic module</i> Fibre optic; connection with FSMA glass (wavelength 800...900 nm, distance < 2000 m)	V10 V11 -	- - -	- - V1	V10 V11 -
	V13	-	-	V13

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Protocol Interface Units REG-DP, EOR-D

CHARACTERISTIC	CODE				
plastic (wavelength 620...680 nm, distance < 50 m) two or three fibre optic connections on demand	V15 V90	- -	- -	V15 -	
Fibre optic; connection with ST					
glass (wavelength 800...900 nm, distance < 2000 m)	V17	-	-	V17	
plastic (wavelength 620...680 nm, distance < 50 m) two or three fibre optic connections on demand	V19 V91	- -	- -	V19 -	
Fibre optic (FO) and/or RJ 45					
2 x RJ 45	-	-	V2	-	
1 x FO glass with ST connection	-	-	V3	-	
Please note: Transfere rate will be determined with feature "Z"					
2 x FO glass with ST connection	-	-	V4	-	
Please note: Transfere rate will be determined with feature "Z"					
1 x RJ 45 and 1 x FO glass with ST connection	-	-	V5	-	
Protocol					
IEC 60870-5-103 for ABB	-	-	Z01	-	
IEC 60870-5-103 for ABB	Z10	-	-	-	
IEC 60870-5-103 for Areva	Z11	-	-	-	
IEC 60870-5-103 for SAT	Z12	-	-	-	
IEC 60870-5-103 for Siemens (LSA/SAS)	Z13	-	-	-	
IEC 60870-5-103 for Sprecher Automation	Z14	-	-	-	
IEC 60870-5-103 for others	Z90	-	-	-	
IEC 60870-5-101 for ABB	Z15	-	-	-	
IEC 60870-5-101 for IDS	Z17	-	-	-	
IEC 60870-5-101 for SAT	Z18	-	-	-	
IEC 60870-5-101 for Siemens (LSA/SAS)	Z19	-	-	-	
IEC 60870-5-101 for others	Z91	-	-	-	
DNP 3.0	Z21	-	Z21	-	
SPABUS	-	-	-	Z22	
MODBUS RTU	-	-	-	Z23	
-	-	-	-	-	
IEC61850	-	Z31	Z31	-	
IEC 60870-5-104	-	Z92	-	-	
Please note: In case of IEC 60870-5-104 please specify the target SCADA system					
IEC 60870-5-104	-	-	Z92	-	
Please note: In case of IEC 60870-5-104 please specify the target SCADA system Withj Z92 Com Server function is not available!					
Operating manual	German English	G1 G2	G1 G2	G1 G2	

Accessories for Protocol interface units	CODE
Fibre optic-module for REG-P and REG-PM	Modul 1
Type of connection	
ST-connection (glass or plastic fibre)	A90
FSMA-connection (glass or plastic fibre)	A91
Fibre optic-module for REG-PE (10/100MBit) with ST-connection and glass FO	Modul 2
Fibre optic-module for REG-PE (1200 ...192000Bit)	Modul 3

Teknisk specifikation REG-DP

Protocol Interface Units REG-DP, EOR-D			
CHARACTERISTIC	CODE		
Type of connection: ST-connection (glass or plastic fibre) FSMA-connection (glass or plastic fibre)	A90		
	A91		
Power Supply for REG-PE (6TE/3HE) compulsory in connection with EOR-D and Module 2 (IEC61850). Also compulsory for REG-DP with Modul 2 in case REG-PE is not equipped with feature H11 (20Watt) with power supply unit AC 85 V...110 V...264 V / DC 88 V...220 V...280 V with power supply unit DC 18 V...60 V...72 V	REG-NTZ		
	H0		
	H1		
Accessory for REG-PE and REG-PED only	CODE		
Parametrization tool (WinREG) running on REG-PE and REG-PED HW	WebREG		

Teknisk specifikation REG-DPA

REG-DPA

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Automatic Controller for Petersen Coils REG-DPA

CHARACTERISTIC	CODE			
Automatic controller for Petersen Coils COM2, COM3 and one mA-input channel; 16 binary inputs, 12 relay outputs; status contact software WinREG for setting parameters, programming and visualisation of all regulator data. <i>Please note: COM 2 is only freely applicable, if no protocol connection is requested</i>	REG-DPA			
Design for panel-mounting or wall-mounting 307 x 250 x 102 mm with standard mounting rail adapter	B0 B1			
Power supply (from external source) AC 85V ... <u>110V</u> ... 264V / DC 88V ... <u>220V</u> ... 280V DC 18V ... <u>60V</u> ... 72V	H1 H2			
Parallel control communication via E-LAN distributed controller and communication without E-LAN	K0 K1			
Analogue outputs without with (Please indicate measuring range i.e. scaling) output 1 sequence voltage U_o output 2 position of Petersen coil I_{pos} output 3 current through the Petersen coil I_p	E00 E90			
Integrated Protocol Interface according to IEC 60870- 5-104 or IEC 61850 without (continue with code "Lx") IEC 60870-5-104/RJ 45 (continue with code "Gx") IEC 60870-5-104/FO (continue with code "Gx") <i>Please note: In case of an IEC60870-5-104 please specify the SCADA-system</i> IEC 61850/RJ 45 (continue with code "Gx") IEC 61850/FO (continue with code "Gx")	XW00 XW90 XW92 XW91 XW93			
Integrated Protocol Interface according to IEC 60870- 5-101/-103, DNP... without protocol interface (continue with code "Gx") for control connection of one REG-DPA only for control connection of more than one system (REG-DPA/D/DA/DP etc.) <i>Please note: code L9 only in combination with Z15...Z19, Z91</i>	L0 L1 L9			
Type of connection Copper conductors RS 232 RS 485, two wire operation only Fibre optic connection with FSMA glass (wavelength 800...900 nm, distance < 2000 m) plastic (wavelength 620...680 nm, distance < 50 m) Fibre optic connection with ST glass (wavelength 800...900 nm, distance < 2000 m) plastic (wavelength 620...680 nm, distance < 50 m)	V10 V11 V13 V15 V17 V19			

Teknisk specifikation REG-DPA

Automatic Controller for Petersen Coils REG-DPA				
CHARACTERISTIC		CODE		
Protocol				
Only in connection with XL1 and XL9 (interface card)	IEC 60870-5-103 for ABB	Z10		
	IEC 60870-5-103 for Areva	Z11		
	IEC 60870-5-103 for SAT	Z12		
	IEC 60870-5-103 for Siemens (LSA/SAS)	Z13		
	IEC 60870-5-103 for Sprecher Automation	Z14		
	IE 60C870-5-103 for others	Z90		
	IEC 60870-5-101 for ABB	Z15		
	IEC 60870-5-101 for IDS	Z17		
	IEC 60870-5-101 for SAT	Z18		
	IEC 60870-5-101 for Siemens (LSA/SAS)	Z19		
	IEC 60870-5-101 for all others	Z91		
	DNP V 3.0	Z21		
	SPABUS	Z22		
	MODBUS RTU	Z23		
Operating manual	German	G1		
	English	G2		
	upon agreement	G9		
Language on display	same language as in the operating manual	A0		
	German	A1		
	English	A2		
	upon agreement	A9		

Teknisk specifikation REG-DPA

Automatic Controller for Petersen Coils REG-DPA

CHARACTERISTIC	CODE		
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Software and Accessories for REG-DPA

CHARACTERISTIC	CODE		
Current injection for 2 fixed frequencies consisting of Thyristor-actuator, controller and inductance <i>Please note: The current injection is only applicable if the measured value of zero sequence voltage and of current are derived from the primary side of the coil</i>	CIF		
Design mountingplate for 19" control cubicle standard case for internal mounting ca. 800 x 800 x 300 mm standard case for external mounting ca. 800 x 800 x 300 mm other enclousures on request;	C1 C2 C3 C9		
Additional operating manual (language on request)	GX		
KNOSPE resistance control	KNOSPE		
Cable for zero modem	582.020B		
Tester for serial interface	REG-TR		

TCP/IP Adapter

CHARACTERISTIC	CODE		
TCP/IP Adapter 10MBit	REG-COM		
Design DIN-rail 35 mm plug-in unit (8TE, 3HE)	with power supply unit AC 230 V A01 with power supply unit AC 85 V...110 V...264 V and DC 88 V...220 V...280 V A02 with power supply unit DC 18 V...60 V...72 V A03		
TCP/IP Adapter; with 100 Mbit	A90		

Fibre optic modules

CHARACTERISTIC	CODE		
Fibre optic-module	Modul 1		
Type of connection	ST-connection (glass or plastic fibre) A90 FSMA-connection (glass or plastic fibre) A91		