ORDER FORM

To order the e²TANGO-2000 protections, please fill in this part of the form according to the INSTRUCTIONS FOR FILLING IN THE FORM on the next page.

STEP 1

①	panel version	☐ 2000-LRR[1]				
②	central unit version	☐ J6	☐ J10	☐ J14		
③	TR measuring card version	☐ TRS (standard, 4I+5U)		☐ TR (optional, 5I+4U)		
④	measuring card parameters[2]	☐ 5 A				
⑤	power supply voltage	☐ UNI (110/230 V AC/DC)	☐ UNIH[3] (110/230 V AC/DC)	☐ 24V (24/48 V AC/DC)[4]	☐ 24VH[3] (24/48 V AC/DC)[4]	☐ others - in agreement with manufacturer .....
	Ethernet communication port (standard on each central unit)					
⑥	COM1	☐ X-none	☐ RS485	☐ CANx2	☐ OPTOMM	☐ OPTOSM
			☐ OPTOP	☐ Profibus	☐ others	
⑦	COM2	☐ OPTOSM				
⑧	installation method	☐ Z - flush	☐ N4 - surface ver. 4	☐ M - Mixed	☐ ZR - flush in rack cabinet	
⑨	panel-unit cable length	☐ S-1 m	☐ L-2 m	☐ other		
⑩	IP protection class	☐ IP4X	☐ IP54[5]			
⑪	communication IEC 61850[6]	☐ EX-none	☐ EG	☐ E2G	☐ E	☐ E2
			☐ OG	☐ O2G	☐ O	☐ O2
⑫	language version	☐ PL	☐ EN	☐ other - in agreement with manufacturer		

1) the e²TANGO-2000-LRR version requires using the OPTOSM communication card in COM2 for communication with the device on the other end of the protected line.
2) 5A/1A configurable from the software level.
3) Reinforced W1, W2, W3 outputs.
4) Universal card for voltages between 24-48 V AC/DC.
5) Protection class IP54 only available in version with flush and mixed installation.
6) IEC 61850 communication is handled through additional communication connectors in the operator panel
Description of the symbols:
G - equipped with GOOSE communication
E - connection through twisted pair with RJ-45 connector
O - connection through multimode optical fibre with SC/(ST on special order) connector
2 - equipped with two redundant ports in PRP/(HSR on special order) standard

STEP 2

card name	code	slot A B C D E F	slot G H I J	slot K L M N
CPU processor card	-	standard in every device		
PSU power supply card - 7 relay outputs	-	standard in every device		
Ethernet communication port	-	standard in every device		
8 binary inputs[1]	8IN	☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
12 binary inputs[1]	12IN	☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
8 binary inputs 24-48 V[2]	8IN24	☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
12 binary inputs 24-48 V[2]	12IN24	☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
8 binary inputs 220 V[3]	8IN220	☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
12 binary inputs 220 V[3]	12IN220	☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
8 relay outputs	8OUT	☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
4 relay outputs, reinforced	4OUTH	☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
4 analogue inputs 0-10 V	AI10	☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
4 analogue inputs 4-20 mA	AI20	☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
4 analogue outputs 0-10 V	AO10	☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
4 analogue outputs 4-20 mA	AO20	☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
6 temperature inputs PT100	PT1	☐ ☐ ☐ ☐ ☐ ☐	☐ ☐ ☐ ☐	☐ ☐ ☐ ☐
		J6	J10	J14

1) Card dedicated for 110 V – operational voltage range: 80–390 V DC (276 V AC).
2) Card dedicated for 24 V – operational voltage range: 19–60 V DC.
3) Card dedicated for 220 V – operational voltage range: 176–264 V DC.

additional requirements:
(eg. enhanced cyber-security, customized plugs, etc.)

STEP 3

Your code:

e²TANGO	1	2	3	4	5	6	7	8	9	10	11	12
A	B	C	D	E	F	G	H	I	J	K	L	M	N

INSTRUCTIONS FOR FILLING IN THE FORM

STEP 1

The presented table includes basic technical parameters of the e²TANGO-2000 protections. Only 1 item should be selected from each item numbered from 1 to 10. If "other" is selected, enter the ordered value in the corresponding field in STEP 3.

Explanation for step 1.

- ▢ - recommended basic configuration
- OPTOMM - multi-mode fibre optic
- N4 - surface installation ver. 4

STEP 2

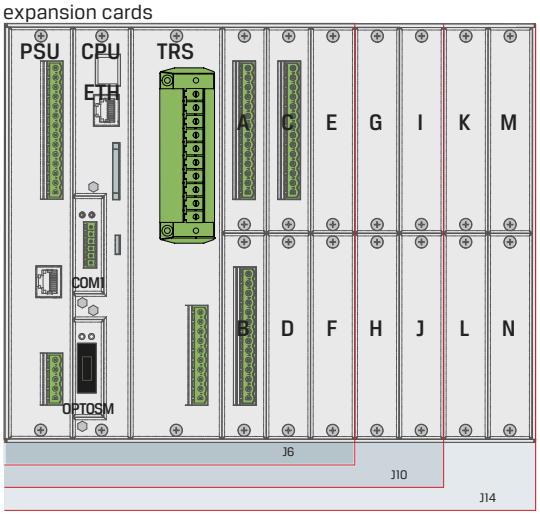
The presented table includes a list of available expansion cards and possible places for their installation in the e²TANGO-2000 HV protection central unit. No tick box ☐ means that the given card cannot be installed in a given place. Select the cards to be ordered from the list and mark with the "X" slot in which they are to be installed. The cards' distribution should start with the A slot. The unit capacities are marked with a background colour in the table, respectively.

Describe additional requirements in the designated area.

Explanation for step 2.

- ▢ - recommended basic configuration
- maximum 4 cards 8OUT
- maximum 1 AI10 card or 1 AI20 card
- maximum 1 AO10 card or 1 AO20 card
- maximum 1 PT1 card

View of the central unit with a selection of the slot arrangement for expansion cards



STEP 3

The above-selected parameters of the e²TANGO bay controller should be completed in appropriate fields. The e²TANGO code created in such a way together with other requirements or a scanned page of the form should be sent with the order to: export@elektrometal-energetyka.pl

Example of the e²TANGO-2000 HV protection unit configuration:

① e²TANGO-2000-LRR	⑨ 8 m cable
② J10 central unit	⑩ protection class IPX4
③ TRS measuring card	⑪ EX-none
④ rated current of the measuring card 5 A	⑫ EN
⑤ UNI (110/230 V AC/DC)	[A] slot A: card 8IN
⑥ RS485	[B] slot B: card 8OUT
⑦ OPTOSM	[C] slot C: card 12IN
⑧ mixed installation	

Example of correct code completion:

e²TANGO	2000-LRR	J10	TRS	5A	UNI	RS485	OPTOSM	M	8	IP4X	EX	EN
8IN	8OUT	12IN										

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