

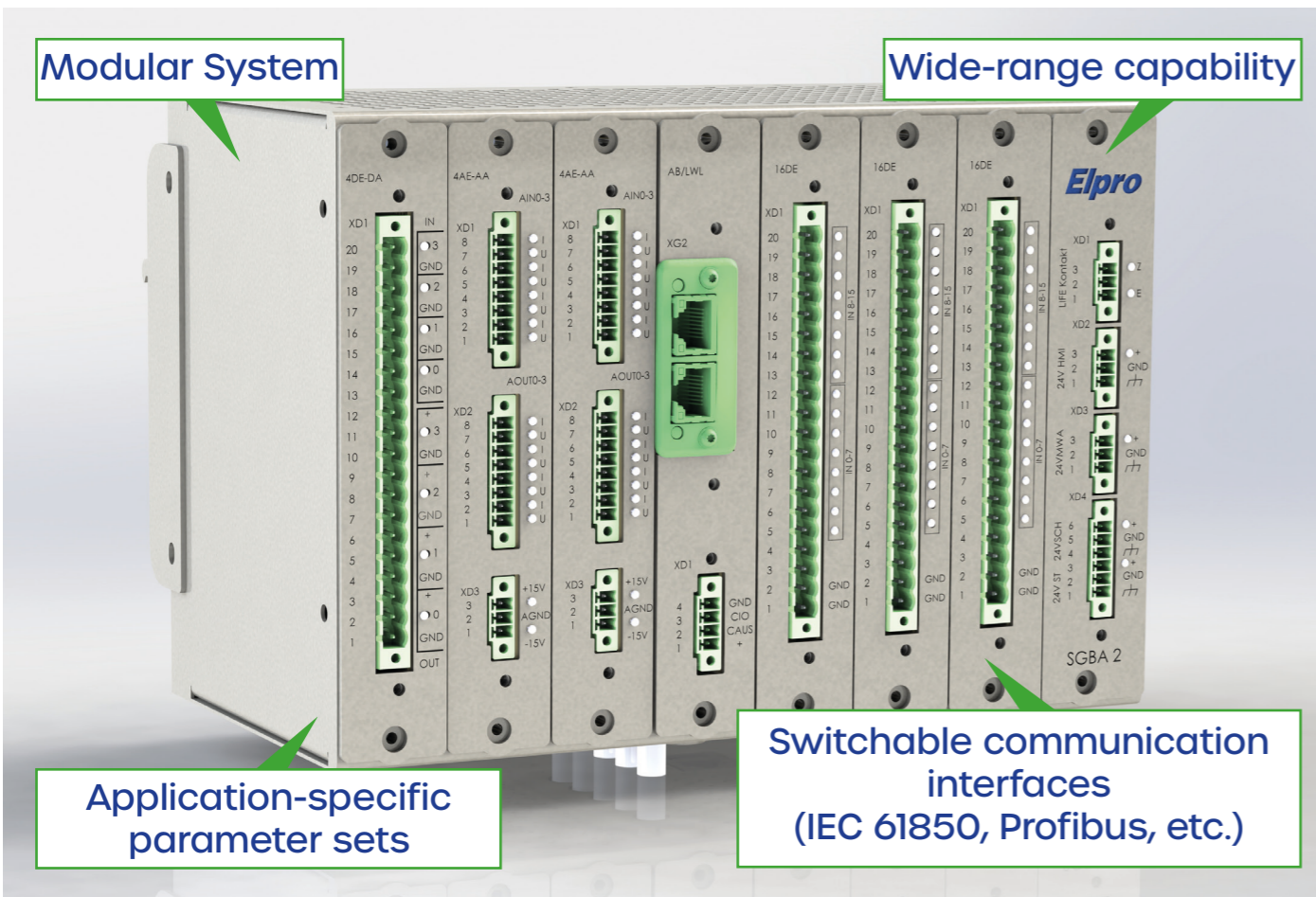


**Elpro**

SGBA 2.0

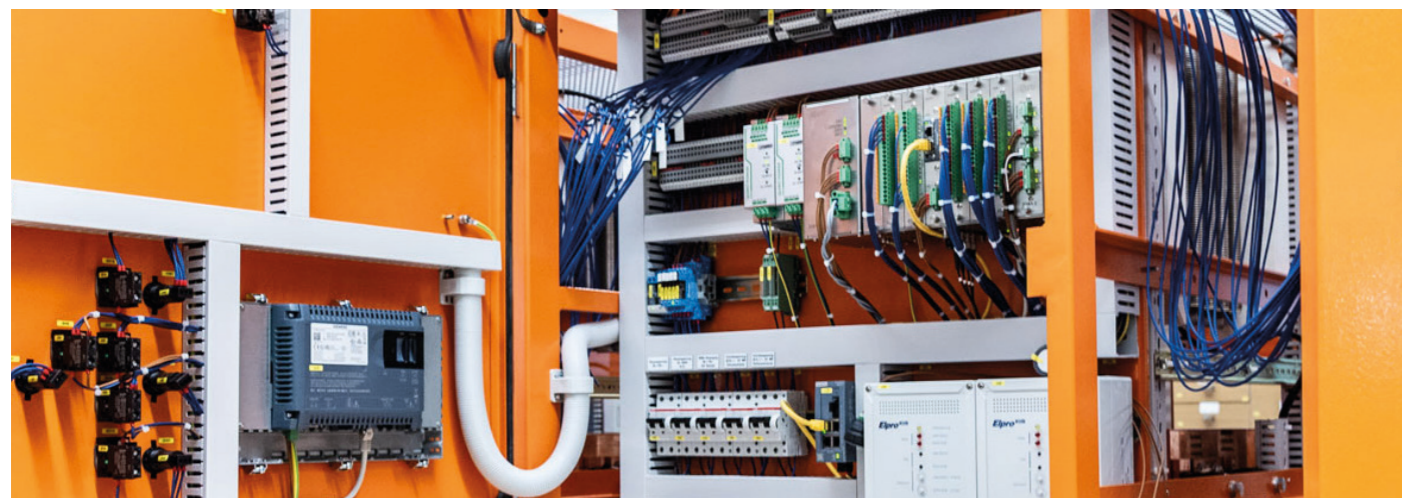
DC Protection and Control Unit





## Features

- Communication interfaces: IEC 61850, Profibus DP, Profinet
- Separate protection and control technology combined in one device
- Status LEDs for inputs and outputs
- Expandable with peripherals such as measurement acquisition (MWA), capacitor trip unit, cable monitoring (KUB) and display (HMI)
- Wide-range power supply and inputs/outputs
- Modular plug-in card system using application-specific cards
- Compact central unit, expandable as required



## Technical Data

Supply Voltage	<ul style="list-style-type: none"> <li>• 24 V - 220 V DC</li> <li>• Separate supply for protection and control section</li> </ul>
Digital Inputs	<ul style="list-style-type: none"> <li>• Maximum 112</li> <li>• Wide range 24-110 V DC</li> <li>• Optional galvanic isolation</li> </ul>
Digital Outputs	<ul style="list-style-type: none"> <li>• Maximum 56</li> <li>• Wide range 24-110 V DC</li> <li>• Short-circuit proof and current monitored</li> <li>• Optional galvanic isolation in the <math>\mu</math>s range</li> </ul>
Analog Inputs	<ul style="list-style-type: none"> <li>• Maximum 12</li> <li>• Switchable between current or voltage outputs</li> <li>• -20 mA to +20 mA / -10 V to +10 V</li> </ul>
Analog Outputs	<ul style="list-style-type: none"> <li>• Maximum 12</li> <li>• Switchable between current or voltage outputs</li> <li>• -20 mA to +20 mA / -10 V to +10 V <math>\leq</math> 30 mA</li> </ul>
Interfaces	<ul style="list-style-type: none"> <li>• 2x USB interface Type A (max. 1 A)</li> <li>• 1x standard SD card</li> <li>• 2x LAN interface</li> <li>• 5x fiber-optic inputs with bayonet connector</li> </ul>
Protection Functions	<ul style="list-style-type: none"> <li>• <math>I_{max}</math> , <math>I_{max}</math> reverse</li> <li>• <math>di/dt</math></li> <li>• <math>\Delta I</math></li> <li>• I-UMZ, I-UMZ reverse</li> <li>• <math>U_{min}</math> , <math>U_{max}</math></li> <li>• <math>I_{2t}</math></li> <li>• Cable monitoring</li> </ul>
Control Functions	<ul style="list-style-type: none"> <li>• Switch monitoring</li> <li>• Line testing / automatic reclosing</li> <li>• Energy and power calculation</li> </ul>
Event and Measurement Archives	<ul style="list-style-type: none"> <li>• 50 measurement archives for current and voltage</li> <li>• plus 4 additional variable values and up to 48 binary tracks</li> <li>• 10 event archives with 2000 messages each</li> <li>• Monitoring (switching counter, switching times and motor currents)</li> </ul>
Dimensions	233 x 163 x 128 mm
Ambient Temperature	-20 to 70°C