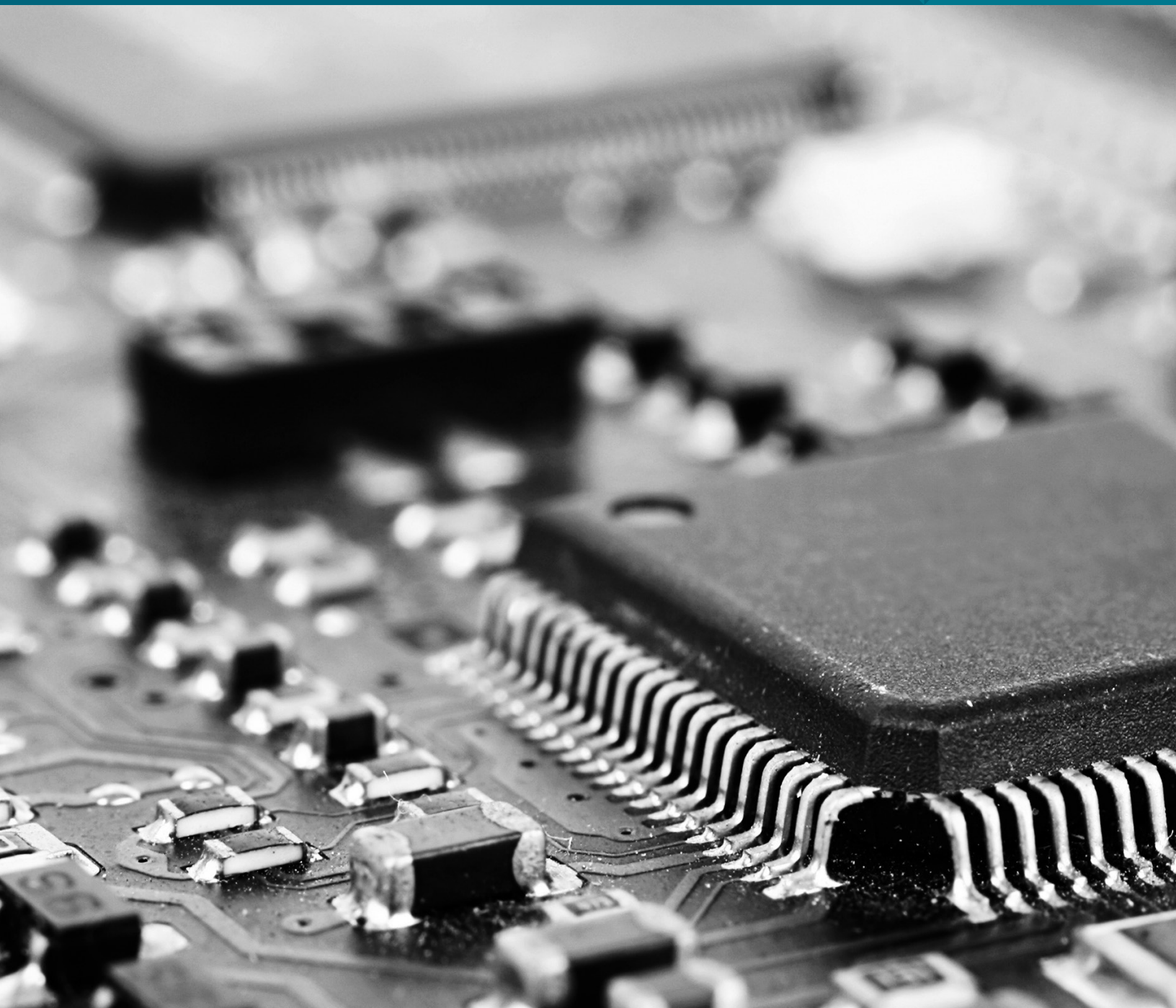


THYRO-FAMILY ACCESSORIES

THYRO-S | THYRO-A | THYRO-A+ | THYRO-PX





Enhance Your Thyro-Family



Thyro-Family Accessories

No other SCR power controller series offers the flexibility and performance of Advanced Energy's Thyro-Family line. Our solutions meet your toughest design challenges. Thyro-Family SCR power controllers ensure high product quality and reproducibility in applications ranging from simple to complex. Get the most out of Thyro-Family SCR power controllers with specific targeted accessories.

Featured Accessories

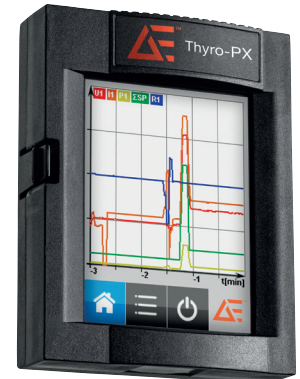
- [Display](#)
- [Communication](#)
- [Software](#)
- [Mains Load Optimization](#)
- [Measuring Equipment](#)
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- [Other Accessories](#)

Display

Displays and Cabinet Door Installation

- Integrated process data recording
- Easy operation via display

Specifications				
Thyro-Touch Unit				
Features	Switchable display to bar chart, line chart, actual values, or data logger			
	Integrated SD card to load or save data			
	Process data recorder of up to 6 parameters as well as status messages			
	Analysis via Thyro-Touch tool on PC			
	EasyStart feature for easy commissioning of Thyro-PX with basic settings			
	Languages: German, English (additional options on request)			
Available for	Thyro-S	Thyro-A	Thyro-A+	Thyro-PX
			●	
PN	2.000.590.001			
Thyro-A+ Display				
Features	Multiple display modes to bar chart or actual values (numerical)			
	Optional SD card to load or save data and parameter settings			
	Long-term data recording of process parameters as well as status messages			
	EasyStart feature for easy Thyro-A+ commissioning			
PN	Thyro A+ Display			2.000.790.001
	Optional SD Card			2.000.790.003
Cabinet Installation Kit (SEK)				
Features	Integration of display into cabinet door			
	Consists of frame and 2.5 m cable			
Available for	Thyro-S	Thyro-A	Thyro-A+	Thyro-PX
			●	●
PN	Thyro-PX			2.000.000.405
	Thyro-A+			2.000.790.002



Thyro-Touch Display for Thyro-PX



Display for Thyro-A+

Communication

Individual bus connection

- Available for Ethernet/IP®, Profibus® DPV1, Modbus® TCP/IP, Profinet®, EtherCAT

Specifications				
BasicBusModule				
Features	Optional connection of up to 8 power controllers			
	Only one address required per bus module			
	Access to power controller for full parameters via integrated USB interface			
	Available for optional mains load optimization (dASM) for up to 32 SCR power controllers in TAKT (full wave switch) mode			
	Front LED status indicators and free configurable fault LED via Thyro-Tool Pro			
	Voltage supply: 24 VDC, 200 mA per module			
	Suitable for plate mounting or DIN rail hat			
	UL and CE approval			
Available for	Thyro-S	Thyro-A	Thyro-A+	Thyro-PX
	●	●	●	
PN	BasicBusModule			2.000.190.002
	BasicBusModule with dASM			2.000.190.003
	4 Cables for BasicBusModule with dASM, each 1.5 m			2.000.004.015
	4 Cables for BasicBusModule with dASM, each 2.5 m			2.000.004.014
	NOTE: An additional Anybus Module is needed for individual bus connection. Depending on the number of connected SCR power controllers, either the ready-to-connect cables (see above) or an individual COMBIC-plug 8-Pole (order number 8.000.056.632) must be ordered.			



BasicBusModule

THYRO-FAMILY SCR POWER CONTROLLERS

Anybus Modules				
Specifications	Access to power controller set points, actual points, and parameters			
	Suitable to insert into Thyro-PX and BasicBusModule			
Available for	Thyro-S	Thyro-A	Thyro-A+	Thyro-PX
	●*	●*	●*	●
PN	Ethernet/IP®		2.000.190.015	
	PROFINET®		2.000.190.011	
	Modbus® TCP		2.000.190.013	
	Profibus® DPV1		2.000.190.010	
	EtherCAT		2.000.190.016	



Anybus® Module

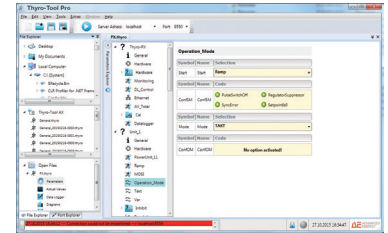
*Suitable for Thyro-S, Thyro-A and Thyro-A+ only in combination with BasicBusModule

Software

Thyro-Tool Pro

- Tailored PC software
- Commissioning, visualization and diagnosis of SCR power controllers

Specifications				
Thyro-Tool Pro				
Specifications	Easy connection via USB interface			
	Individual analysis for each connected SCR power controller (system driven via IP address)			
	Actual value			
	Set points			
	Line charts			
	Parameter analysis			
	Simultaneous presentation of process data of several power controllers			
Available for	Thyro-S	Thyro-A	Thyro-A+	Thyro-PX
	● Only H3 series	● Only H3 series	●	●
PN	2.000.000.380			



Thyro-Tool Pro Overview

Mains Load Optimization

BasicBusModule with dASM Option

- Reduce harmonics and flickers
- Minimize operating costs

Specifications				
BasicBusModule with dASM				
Specifications	High-efficiency mains load optimization			
	Significant reduction of flicker effects and lower operating and investment costs			
Key Features	Easy installation and commissioning of BasicBusModule with dASM feature			
	Mains load optimization in groups of up to 32 units (eight units per single module, in any order)			
	Very short response times for set point and load changes			
	Power monitoring (load level)			
	Easy wiring, parameter-setting, and commissioning			
	Available with different Anybus fieldbus communication interfaces (For details please contact your local sales representative)			
Available for	Thyro-S	Thyro-A	Thyro-A+	Thyro-PX
	●	●	●	
PN	BasicBusModule with dASM			2.000.190.003
	4 Cables for BasicBusModule with dASM, each 1.5 m			2.000.004.015
	4 Cables for BasicBusModule with dASM, each 2.5 m			2.000.004.014
	NOTE: Depending on the number of connected SCR power controllers, either the ready-to-connect cables (see above) or an individual COMBIC-plug 8-Pole (order number 8.000.056.632) must be ordered.			
dASM Card				
Specifications	RS232 cable is required to connect SCR power controllers to a PC or notebook..			
Available for	Thyro-S	Thyro-A	Thyro-A+	Thyro-PX
				●
PN	2.000.590.003			



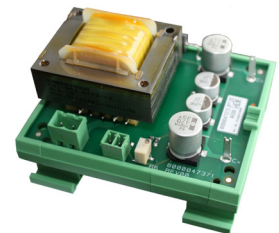
BasicBusModule

Measuring Equipment

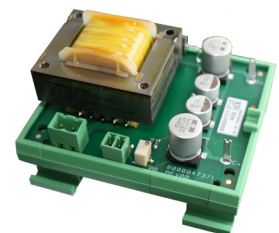
ZME-1 and ZME-5

- Precise measurement of external values
- Suitable for DIN rail mounting

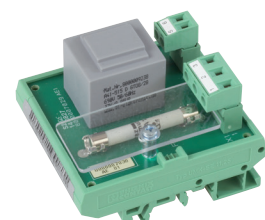
Specifications				
ZME-1 Measuring Unit				
Specifications	Measurement of effective current in operating mode TAKT (Full frequency package control)			
	Suitable for DIN rail mounting			
Note	ZME-1 can only be used with 1 A transformers			
Available for	Thyro-S	Thyro-A	Thyro-A+	Thyro-PX
	●	●	●	●
PN	2.000.003.740			
ZME-5 Measuring Unit				
Specifications	Measurement of effective current in operating mode TAKT (Full frequency package control)			
	Suitable for DIN rail mounting			
Note	ZME-5 can only be used with 5 A transformers			
Available for	Thyro-S	Thyro-A	Thyro-A+	Thyro-PX
	●	●	●	●
PN	2.000.003.741			
Voltage transducer				
Specifications	Voltage transducer with 690 V / 37 V			
	Suitable for DIN rail mounting			
Available for	Thyro-S	Thyro-A	Thyro-A+	Thyro-PX
				●
PN	2.000.000.399			



ZME-1 Measuring Unit



ZME-5 Measuring Unit



Voltage transducer

24 V DC Power Supply

- Control voltages of SCR power controllers or 24 V DC relays
- Suitable for DIN rail mounting

Specifications				
24 V DC Power Supply				
Input	230 V AC (85-264 V AC, 50/60 Hz)			
Output	24 V DC			
Power	1 A / 24 W			
Safety	Europe (EN60950-1, EN50178)			
	North America (UL/ cUL 60950, UL 508C listed)			
	Worldwide (CB-Report according to IEC60950)			
Features	EMC immunity			
	DIN rail mounting			
	Connection by spring clamp terminals or detachable screw terminal block			
	Universal input 85 - 264 V AC, 50/60 Hz			
	Modules with 5, 12, 24 & 48 V DC output			
	Output voltage adjustable			
	DC-OK signal			
	Low ripples			
	Overload and short-circuit protection			
	North America (UL/ cUL 60950, UL 508C listed)			
	Parallel operation possible			
	Redundancy module			
Available for	Thyro-S	Thyro-A	Thyro-A+	Thyro-PX
	●	●		
PN	8.000.025.527			

Other Accessories

- Adapters & Cables
- Thyro-Step Controller
- Various interfaces from RS232 to USB

Specifications				
RS232 Cable				
Specifications	RS232 cable is required to connect SCR power controllers to a PC or notebook..			
Available for	Thyro-S	Thyro-A	Thyro-A+	Thyro-PX
				●
PN	6.000.016.474			
RS232 to USB				
Specifications	RS232 to USB adapter is required to connect SCR power controllers to a USB interface of PC or notbook..			
Available for	Thyro-S	Thyro-A	Thyro-A+	Thyro-PX
				●
PN	8.000.019.086			
DIN Rail Adapter (16 A / 30 A)				
Specifications	The adapter is an optional accessory to mount SCR power controllers on DIN rail Note: The adapter is part of every Thyro-A 2A unit			
Available for	Thyro-S	Thyro-A	Thyro-A+	Thyro-PX
	●	●	●	
PN	8.000.006.763			
DIN Rail Adapter (45 A / 60 A)				
Specifications	The adapter is an optional accessory to mount SCR power controllers on DIN rail			
Available for	Thyro-S	Thyro-A	Thyro-A+	Thyro-PX
	●	●	●	
PN.	8.000.010.791			
Thyro-Step Controller				
Specifications	Thyro-Step Controller combines features of load sequencing control (10+1 circuits) and standard tasks like monitoring system for main load peaks, data logging and control system. It also serves as a I/O module.			
Available for	Thyro-S	Thyro-A	Thyro-A+	Thyro-PX
	●	●		
PN	2.000.002.501			



RS232 Cable



RS232 to USB



DIN Rail Adapter



Thyro-Step Controller