



Ing. Büro H. Lertes GmbH & Co. KG

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Accessories price list 11.2025

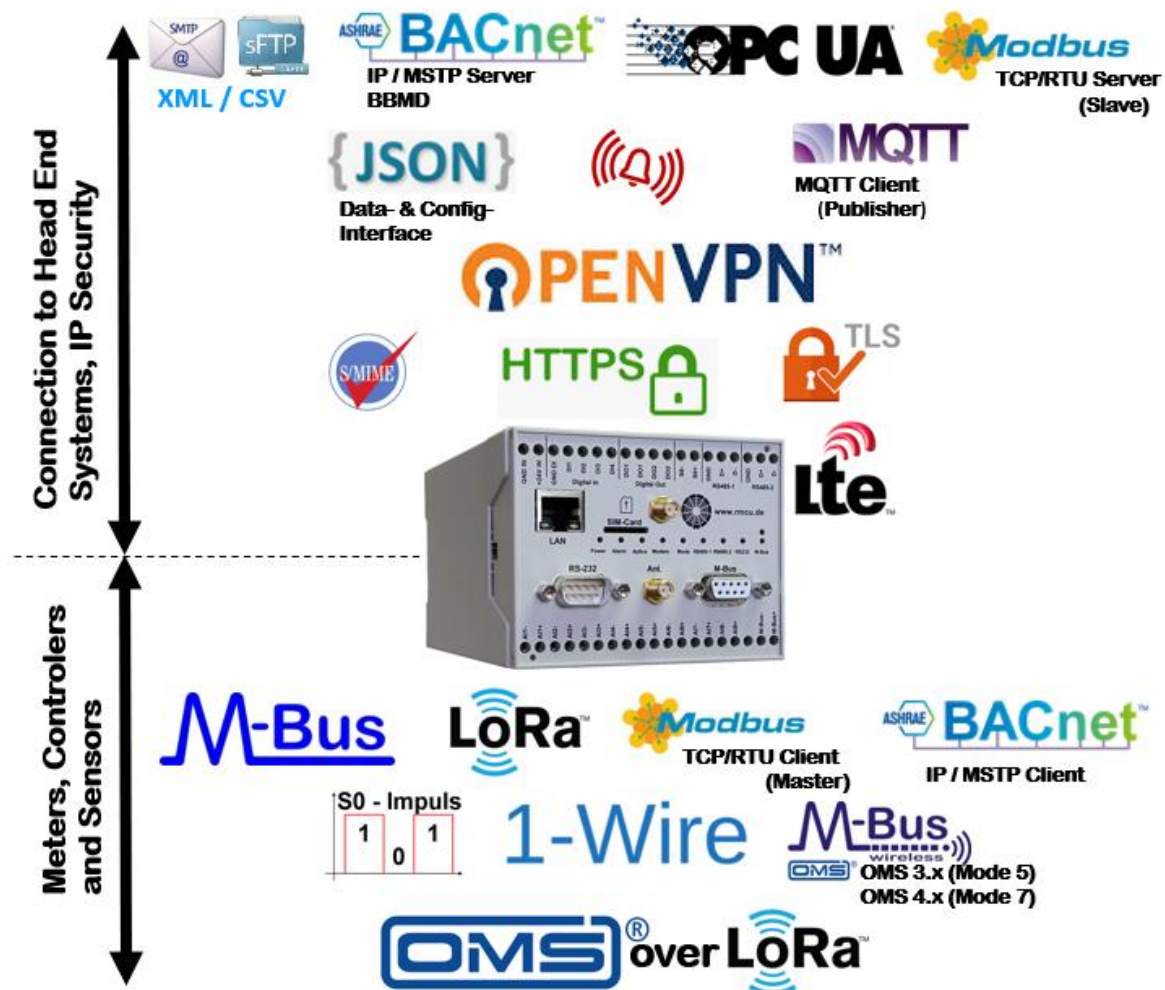


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The prices stated are prices per unit. When purchasing larger quantities, it is possible that a quantity discount will be granted upon request.

[1] Requires a manufacturer-specific connection device for configuration. 1



1. LoRaWAN-sensors and accessories

1.1. Equipment radio measurement

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 50-40-868 (Lertes)	LoRaWAN Measurement Case: - Battery powered LoRa Basestation - Location finding for Basestations - Verification connection of sensors & meters		2400,00 €
B 50-40-869 (Lertes)	LoRaWAN Measurement backpack: - Battery powered LoRa Basestation - Location finding for Basestations - Verification connection of sensors & meters		2400,00 €
B 48-40-120 (Adeunis)	LoRaWAN Field Test Device incl. Connection and Configuration: - Measures RSSI & SNR - Verification connection of sensors & meters - Structure LoRaWAN Networks - incl. Communication and charging cable		370,00 €

1.2. Power meter

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-626 (Gossen Metrawatt)	LoRaWAN power meter 5/80: - Direct measuring 5(80) A 3-phase power meter with MID-approval External antenna connection		306,50 €

The prices stated are prices per unit. When purchasing larger quantities, it is possible that a quantity discount will be granted upon request.

[1] Requires a manufacturer-specific connection device for configuration. 2



B 49-40-627 (Gossen Metrawatt)	LoRaWAN power meter 1/6: 1/5(6) A Current transformers 3-phase power meter with MID-approval External antenna connection		293,50 €
B 49-40-620 (EMU- Metering)	LoRaWAN power meter 3/100: - Direct measuring 3-phase power meter with MID-approval - S0 pulse output Internal antenna		269,50 €
B 49-40-621 (EMU- Metering)	LoRaWAN power meter 3/100: - Direct measuring 3-phase power meter with MID-approval - S0 pulse output External antenna connection		321,50 €
B 49-40-622 (EMU- Metering)	LoRaWAN power meter 3/5: - Current transformers /5 & /1A 3-phase power meter with MID-approval - S0 pulse output Internal antenna		269,50 €
B 49-40-623 (EMU- Metering)	LoRaWAN power meter 3/5: - Current transformers /5 & /1A 3-phase power meter with MID-approval - S0 pulse output External antenna connection		321,50 €
B 49-40-668 (KLAX)	LoRaWAN power meter module: - SML opto head - External antenna - Replaceable battery		195,00 €

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[1] Requires a manufacturer-specific connection device for configuration. 3



B 49-40-823 (deZem) B 49-40-824 (deZem)	LoRaWAN power sensor: • 4 input channels • Energy harvesting • Recording of effective currents • Available as total values: total current, active load and active energy; active energy is only available if the voltage transformer (B 49-40-830) is connected to input 4. • Also available as a variant with Rogowski coils; this variant requires a galvanically isolated deZem voltage converter at input 4		203,75 € (Standard-variant) 203,75 € (Rogowski-variant)
B 49-40-825 (deZem) B 49-40-826 (deZem) B 49-40-827 (deZem) B 49-40-828 (deZem) B 49-40-829 (deZem) B 49-40-830 (deZem) B 49-40-831 (deZem)	Harvy2 accessories: Folding current transformer: • T80/40: <i>Nominal current 80A, output signal 0-40mA</i> • T150/40: <i>Nominal current 150A, output signal 0-40mA</i> • T300/250: <i>Nominal current 300A, output signal 0-250mA</i> • T500/250: <i>Nominal current 500A, output signal 0-250mA</i> Rogowski coils: • Nominal current 3000A • JST plug-in system • Output signal 0-300mV • 1m connection cable Voltage converter: • Top-hat rail 230V/12VAC • Includes 1m connection cable with current limitation and JST plug system, also available as plug-in power supply Magnet pack mounting: • Upgrade for five Harvy2		45,00 € 64,00 € 109,00 € 131,50 € 150,00 € 57,00 € 25,00 €

1.3. Modules for heat meters

The prices stated are prices per unit. When purchasing larger quantities, it is possible that a quantity discount will be granted upon request.

[1] Requires a manufacturer-specific connection device for configuration. 4



Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-664 (Elvaco)	LoRaWAN heat meter module: - For Engelmann Sensostar - Internal module		99,00 € (int.)
B 49-40-665 (Elvaco) B 49-40-666 (Elvaco)	LoRaWAN heat meter module: - For Landis+Gyr UH50/UC50 - Internal module - Selection: - internal antenna - external antenna (incl. Magnetic base antenna)		125,00 € (int.) 145,50 € (ext.)
B 49-40-662 (Elvaco) B 49-40-663 (Elvaco)	LoRaWAN heat meter module: - For Diehl Metering SHARKY 775 - Internal module - Selection: - internal antenna - external antenna (incl. Magnetic base antenna)		135,00 € (int.) 151,00 € (ext.)
B 49-40-660 (Elvaco) B 49-40-661 (Elvaco)	LoRaWAN heat meter module: - For Kamstrup Multical 403/603/803 - Internal module - Selection: - internal antenna - external antenna (incl. Magnetic base antenna)		135,00 € (int.) 145,50 € (ext.)
B 49-40-667 (Elvaco) B 49-40-698 (Elvaco)	LoRaWAN heat meter module: - For Itron CF ECHO II/51/55 - Internal module - Selection: - internal antenna - external antenna (incl. Magnetic base antenna)		135,00 € (int.) 151,00 € (ext.)

1.4. Modules for gas meters

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-695 (NAS)	LoRaWAN Gas meter module (ATEX): - For Honeywell (Elster) BK-G diaphragm gas meters BK-G1.6 to BK-G100 with totalizer Z3/Z6 - Battery-powered - External plug-in module		75,00€

The prices stated are prices per unit. When purchasing larger quantities, it is possible that a quantity discount will be granted upon request.

[1] Requires a manufacturer-specific connection device for configuration. 5



B 49-40-696 (NAS)	LoRaWAN Gas meter module: - For Honeywell (Elster) Absolute Encoder AE2, AE3 and AE5 - Battery-powered - External plug-in module		105,00€
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1.5. Pulse converter (S0)

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-646 (Adeunis)	LoRaWAN pulse converter: - S0 --> LoRa - Up to 2 meters connected to IP67 - DIN Rail & wall mounting - incl. replaceable battery		125,00 €
B 49-40-649 (Adeunis)	LoRaWAN pulse converter (ATEX): - S0 --> LoRa - Up to 2 meters connected to IP67 - DIN Rail & wall mounting - Fixed battery		134,50 €
B 49-40-645 (Adeunis)	LoRaWAN pulse converter (ATEX) incl. Binder Connector: - For gas meter in the ex-area - S0 --> LoRa - Up to 1 meters connected to IP67 - DIN Rail & wall mounting - Fixed battery		163,50 €

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[1] Requires a manufacturer-specific connection device for configuration. 6



B 49-40-643 (Adeunis)	LoRaWAN pulse converter (ATEX) incl. Gazpar Connector: - For gas meter in the ex-area - S0 --> LoRa - Up to 1 meters connected - to IP67 - DIN Rail & wall mounting - Fixed battery		163,50 €
B 49-40-617 (Elsys)	LoRaWAN pulse converter/ Outdoor sensor: - Temperature, humidity, acceleration & atmospheric pressure - Analogue Input 0-10V, digital Input, pulse (S0) - to IP67 - wall mounting - incl. replaceable battery External antenna connection		129,00 €
B 49-40-619 (Elsys)	LoRaWAN plug-on module: - Connection of external power supply (5-24V) - Upgrade to class c device - Compatible with B 49-40-617		53,00 €
B 49-40-618 (Elsys)	LoRaWAN pulse converter/ Outdoor sensor: - Temperature, analogue input, digital input, pulse (S0) - to IP67 - wall mounting - incl. replaceable battery External antenna connection		93,00 €

1.6. Modbus to LoRaWAN-Converter

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-615 (Adeunis)	LoRaWAN Modbus converter: - RS485/RS232 compatible - read and write Modbus slave registers - to IP67 - DIN Rail & wall mounting - Supply voltage 6-30V		215,50 €
B 49-40-650 (Dragino)	LoRaWAN Modbus converter: - RS485/Modbus RTU --> LoRa - read and write Modbus slave registers - incl. magnetic base antenna - up to 15 register addresses - Supply voltage 7-24V		90,00 €

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[1] Requires a manufacturer-specific connection device for configuration. 7



1.7. Actuator

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-669 (Enginko)	LoRaWAN actuator (mcf88) - external power supply - Class C		147,50 €

1.8. Heating thermostats

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-693 (Micropelt)	LoRaWAN heating thermostats: - maintenance-free operation - Energy Harvesting - no battery change - rechargeable via USB		159,00€
B 49-40-694 (Mclimate)	LoRaWAN heating thermostats: - incl. replaceable battery - Class A		94,00€
B 49-40-705 (Thermokon)	LoRaWAN heating thermostats: - incl. replaceable battery - Class A		89,00€

1.9. LoRaWAN Door sensor

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-697 (Elsys)	LoRaWAN Door sensor: - Detection of the opening/closing of doors - Battery-operated - Incl. replaceable battery		67,00€

1.10. Digital Input/Output

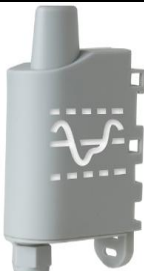
Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-642 (Adeunis)	LoRaWAN digital Input/Output: 4 channels - Relay switching possible - to IP68 - Check operating state - external power supply or replaceable battery - Class C possible		125,00 €

The prices stated are prices per unit. When purchasing larger quantities, it is possible that a quantity discount will be granted upon request.

[1] Requires a manufacturer-specific connection device for configuration. 8



1.11. Analog Input

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-633 (Adeunis)	LoRaWAN analogue input: 2 inputs 0-10 V or 4-20 mA - to IP67 - DIN Rail & wall mounting - incl. replaceable battery		122,00 €
B 49-40-634 (Adeunis)	LoRaWAN analog Input: 2 Inputs 0-10 V or 4-20 mA - to IP67 - DIN Rail & wall mounting - Supply voltage 5-36V		128,00 €

1.12. Temperature sensor

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-613 (Adeunis)	LoRaWAN temperatur sensor 1: 1x external sensor (NTC) -55 to +155°C 1x internal sensor -30 to +70°C - to IP68 - DIN Rail & wall mounting - incl. replaceable battery		167,50 €
B 49-40-614 (Adeunis)	LoRaWAN temperatur sensor 2: 2x external sensors (NTC) -55 to +155°C - to IP68 - DIN Rail & wall mounting - incl. replaceable battery		201,50 €

1.13. Room sensor: state

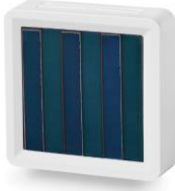
Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-675 (Thermokon)	LoRaWAN room sensor: - State (2 Reed-contacts with magnets) - Replaceable battery - Wall mounting (Glued or screwed connection)	 Different colours available	59,50 €

The prices stated are prices per unit. When purchasing larger quantities, it is possible that a quantity discount will be granted upon request.

[1] Requires a manufacturer-specific connection device for configuration. 9



1.14. Room sensor: temperature, humidity

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-610 (Elsys)	LoRaWAN room sensor: • Temperature, humidity • Wall mounting • incl. replaceable battery		75,00 €
B 49-40-700 (Elsys)	LoRaWAN room sensor: • Temperature, humidity • With a 2,13-Zoll-E-Paper-Display • Wall mounting • incl. replaceable battery		85,00 €
B 49-40-702 (Elsys)	LoRaWAN room sensor: • Temperature, humidity • With a organic solar cell • Wall mounting		80,00 €
B 49-40-670 (Thermokon)	LoRaWAN room sensor: • Temperature, humidity • Battery-powered • Wall mounting (Glued or screwed connection)	 Different colours available	70,00 €
B 49-40-804 (Thermokon)	LoRaWAN room sensor: • Temperature, humidity • With a 44x24mm E-Paper-Display • Battery-powered • Wall mounting (Glued or screwed connection)	 Verschiedene Farben erhältlich	82,50 €
B 49-40-677 (Thermokon)	LoRaWAN room sensor: • Temperature, humidity • Replaceable battery • Wall mounting (Glued or screwed connection)	 Different colours available	65,00 €

The prices stated are prices per unit. When purchasing larger quantities, it is possible that a quantity discount will be granted upon request.

[1] Requires a manufacturer-specific connection device for configuration. 10



1.15. Room sensor: state, temperature, humidity

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-676 (Thermokon)	LoRaWAN room sensor: • State (2 Reed-contacts with magnets), temperature, humidity • Replaceable battery • Wall mounting (Glued or screwed connection)	 Different colours available	73,50 €

1.16. Room sensor: brightness, temperature, humidity

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-678 (Thermokon)	LoRaWAN room sensor: • Brightness, temperature, humidity • Replaceable battery • Wall mounting (Glued or screwed connection)	 Different colours available	78,50 €

1.17. Room sensor: motion, temperature, humidity

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-679 (Thermokon)	LoRaWAN room sensor: • Motion, temperature, humidity • Replaceable battery • Wall mounting (Glued or screwed connection)	 Different colours available	85,50 €

1.18. Room sensor: temperature, humidity, light/brightness, motion

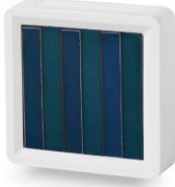
Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-612 (Elsys)	LoRaWAN room sensor: • Temperature, humidity, light, motion • Wall mounting • incl. replaceable battery		90,00 €
B 49-40-680 (Thermokon)	LoRaWAN room sensor: • Temperature, humidity, brightness, motion • Replaceable battery • Wall mounting (Glued or screwed connection)	 Different colours available	96,50 €

The prices stated are prices per unit. When purchasing larger quantities, it is possible that a quantity discount will be granted upon request.

[1] Requires a manufacturer-specific connection device for configuration. 11



1.19. Room sensor: temperature, humidity, CO2

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-609 (Elsys)	LoRaWAN room sensor: • Temperature, humidity, CO2 • Wall mounting • incl. replaceable battery		186,00 €
B 49-40-701 (Elsys)	LoRaWAN room sensor: • Temperature, humidity, CO2 • With a 2,13-Zoll-E-Paper-Display • Wall mounting • incl. replaceable battery		206,00 €
B 49-40-703 (Elsys)	LoRaWAN room sensor: • Temperature, humidity, CO2 • With a organic solar cell • Wall mounting		200,00 €
B 49-40-671 (Thermokon)	LoRaWAN room sensor: • Room temperature, humidity, CO2 • Battery-powered • Wall mounting (Glued or screwed connection)	 Different colours available	179,50 €
B 49-40-803 (Thermokon)	LoRaWAN room sensor: • Temperature, humidity, CO2 • With a 44x24mm E-Paper-Display • Battery-powered • Wall mounting (Glued or screwed connection)	 Verschiedene Farben erhältlich	200,00 €

1.20. Room sensor: temperature, humidity, light, motion, CO2

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-648 (Elsys)	LoRaWAN room sensor: • temperature, humidity, light, motion, CO2 • Wall mounting • incl. replaceable battery		199,00 €

The prices stated are prices per unit. When purchasing larger quantities, it is possible that a quantity discount will be granted upon request.

[1] Requires a manufacturer-specific connection device for configuration. 12



B 49-40-800 (Thermokon)	LoRaWAN room sensor: - temperature, humidity, light, motion, CO2 - Battery-powered - Wall mounting (Glued or screwed connection)	 Different colours available	195,50 €
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1.21. Room sensor: temperature, humidity, light, motion, VOC

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-608 (Elsys)	LoRaWAN room sensor: - temperature, humidity, light, motion, VOC (volatile organic compounds) - Wall mounting - incl. replaceable battery		199,00 €

1.22. Room sensor: temperature, humidity, light, motion, volume

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-606 (Elsys)	LoRaWAN room sensor: - temperature, humidity, light, motion, volume (peak + average) - Wall mounting - incl. replaceable battery		168,00 €

1.23. Room sensor: temperature, humidity, light, motion, occupancy

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-605 (Elsys)	LoRaWAN room sensor: - temperature, humidity, light, motion, occupancy - Wall mounting - incl. replaceable battery		155,00 €

1.24. Room sensor: temperature, humidity, air pressure, light, motion, Acceleration / orientation

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-821 (Enerthing)	LoRaWAN room sensor: - temperature, humidity, air pressure, light, motion, Acceleration / orientation - With a organic solar cell - Wall mounting		124,00 €

The prices stated are prices per unit. When purchasing larger quantities, it is possible that a quantity discount will be granted upon request.

[1] Requires a manufacturer-specific connection device for configuration. 13



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1.25. Room sensor: temperature, humidity, Co2, air pressure, light, motion, Acceleration / orientation

Art.-Nr.	Bezeichnung	Typ / Ausführung	Preis (netto)
B 49-40-822 (Enerthing)	LoRaWAN room sensor: • temperature, humidity, Co2, air pressure, light, motion, Acceleration / orientation • With a organic solar cell • Wall mounting		235,00 €

1.26. Room operating unit

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-672 (Thermokon)	LoRaWAN room operating unit: • Room control unit with potentiometer for setpoint adjustment • Integrated temperature and humidity sensor • Battery-powered • Class A • Wall mounting (Glued or screwed connection)		95,00 €
B 49-40-673 (Thermokon)	LoRaWAN room operating unit: • Room control unit with push-button • Integrated temperature and humidity sensor • Battery-powered • Class A • Wall mounting (Glued or screwed connection)		193,50 €
B 49-40-674 (Thermokon)	LoRaWAN room operating unit: • Room control unit with potentiometer and push-button • Integrated temperature and humidity sensor • Battery-powered • Class A • Wall mounting (Glued or screwed connection)		219,50 €

The prices stated are prices per unit. When purchasing larger quantities, it is possible that a quantity discount will be granted upon request.

[1] Requires a manufacturer-specific connection device for configuration. 14



1.27. Outdoor sensor: temperature

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-681 (Thermokon)	LoRaWAN outdoor sensor [1]: • Temperature • to IP65 • Wall mounting • external power supply • Class A		137,50 €

1.28. Outdoor sensor: temperature, humidity

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-682 (Thermokon)	LoRaWAN outdoor sensor [1]: • Temperature, humidity • to IP65 • Wall mounting • external power supply • Class A		260,00 €

1.29. Outdoorsensor: temperature, humidity

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-819 (Thermokon)	LoRaWAN-outdoor sensor: • Temperature, Humidity • to IP65 • Wall mounting • Battery-powered • Class A		130,00 €

1.30. Outdoor sensor: temperature, CO2

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-683 (Thermokon)	LoRaWAN outdoor sensor [1]: • Temperature, CO2 • to IP65 • Wall mounting • external power supply • Class A		355,50 €

The prices stated are prices per unit. When purchasing larger quantities, it is possible that a quantity discount will be granted upon request.

[1] Requires a manufacturer-specific connection device for configuration. 15



1.31. Outdoor sensor: temperature, CO2, humidity

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-684 (Thermokon)	LoRaWAN outdoor sensor [1]: • Temperature, CO2, humidity • to IP65 • Wall mounting • external power supply • Class A		315,50 €

1.32. Outdoor sensor: temperature, CO2, humidity

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-818 (Thermokon)	LoRaWAN-outdoor sensor: • Temperature, CO2, humidity • to IP65 • Wall mounting • Battery-powered • Class A		239,50 €

1.33. Outdoor sensor: temperature, CO2, humidity, VOC

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-685 (Thermokon)	LoRaWAN outdoor sensor [1]: • Temperature, CO2, humidity, VOC • to IP65 • Wall mounting • external power supply • Class A		370,50 €

1.34. Outdoor sensor: brightness

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-686 (Thermokon)	LoRaWAN outdoor sensor [1]: • Brightness • to IP65 • Wall mounting • external power supply • Class A		173,00 €

The prices stated are prices per unit. When purchasing larger quantities, it is possible that a quantity discount will be granted upon request.

[1] Requires a manufacturer-specific connection device for configuration. 16



1.35. Outdoor sensor: brightness, temperature, atmospheric pressure

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-687 (Thermokon)	LoRaWAN outdoor sensor [1]: - Brightness, temperature, atmospheric pressure - to IP65 - Wall mounting - external power supply - Class A		251,50 €

1.36. Outdoor sensor: differential pressure, volume flow

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-688 (Thermokon)	LoRaWAN outdoor sensor [1]: - Differential pressure, Volume flow - to IP65 - Wall mounting - external power supply - Class A		157,50 €

1.37. Outdoor sensor weather station: temperature, humidity

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-691 (Thermokon)	LoRaWAN-outdoor sensor (weather station) [1]: - temperature, humidity - Radiation and weather protected - Additional analogue voltage outputs - to IP65 - Wall mounting - external power supply - Class A		361,50 €

1.38. Duct sensor: Temperature, humidity, CO2

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-811 (Thermokon)	LoRaWAN-Duct sensor: - Temperature, humidity, CO2 - to IP65 - external power supply - Class A - sensor tube Ø=19,5 mm - Length: 180mm		282,00 €

The prices stated are prices per unit. When purchasing larger quantities, it is possible that a quantity discount will be granted upon request.

[1] Requires a manufacturer-specific connection device for configuration. 17



1.39. Duct sensor: Temperature, humidity, CO2

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-820 (Thermokon)	LoRaWAN-Duct sensor: • Temperature, humidity, CO2 • to IP65 • Battery-powered • Class A • sensor tube Ø=19,5 mm • Length: 180mm		226,00 €

1.40. Leakage

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-616 (Adeunis)	LoRaWAN leakage sensor • 2m sensor cable length+ 0,70m Non-sensor cable length • to IP68 • incl. replaceable battery		285,00 €
B 49-40-689 (Thermokon)	LoRaWAN leakage sensor [1]: • Measurement over the entire sensor rod • 5m, 20m, 30 m cable length possible • to IP65 • Internal antenna connector (external on request) • external power supply • Class A		Preis auf Anfrage 5m: 20m: 30m:
B 49-40-690 (Thermokon)	LoRaWAN leakage sensor [1]: • Remote sensor • 5m cable length • to IP65 • Internal antenna connector (external on request) • external power supply • Class A		147,00 €

The prices stated are prices per unit. When purchasing larger quantities, it is possible that a quantity discount will be granted upon request.

[1] Requires a manufacturer-specific connection device for configuration. 18



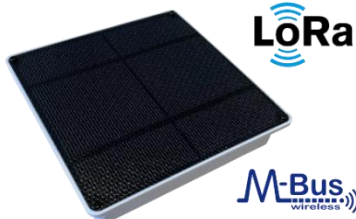
1.41. Distance sensors

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-647 (Dragino)	LoRaWAN distance sensors: - distance sensor (ultrasonic) 0,28 m to 7,5 m 25cm cable length - to IP 66 - replaceable battery		87,50 €
B 49-40-604 (Elsys)	LoRaWAN outdoor sensor: - Temperature, humidity, distance, acceleration, pressure - to IP67 - Wall mounting - incl. replaceable battery - external power supply		399,00 €

1.42. Parking sensor technology

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-631 (PNI)	LoRaWAN parking sensor: - Mounted on the road surface - Battery operated - Detects parking space occupancy		407,50 €

1.43. wM-Bus on LoRa-Gateway

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-699 (Lobaro)	wM-Bus on LoRa-Gateway: - wM-Bus → LoRa - solar powered - incl. SIM-card		252,00 €

1.44. M-Bus on LoRa-Gateway

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-635 (Adf Web)	M-Bus on LoRa gateway: - Connection of up to 20 M-Bus loads - DIN rail mounting - Power supply 18–35 V DC or 8–24 V AC		416,50 €

The prices stated are prices per unit. When purchasing larger quantities, it is possible that a quantity discount will be granted upon request.

[1] Requires a manufacturer-specific connection device for configuration. 19



1.45. Accessories Thermokon sensors

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-692 (Thermokon)	*Bluetooth dongle Mirco-USB (for Thermokon sensors with external power supply): An application-specific reconfiguration of the units can be carried out using the Thermokon USEapp. The configuration apps are available in the corresponding app stores (Android, iOS)		39,00 €

1.46. Accessories Elsys sensors

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-600	Lithium-ion battery (sensor technology): - Nominal voltage 3,6V - Capacity 2700mAh - Dimension 14,5 x 50,5mm		4,80 €

1.47. Accessories Adeunis sensors

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-601	Lithium-ion battery (sensor technology): - Nominal voltage 3,6V - Capacity 4000mAh		9,50 €

The prices stated are prices per unit. When purchasing larger quantities, it is possible that a quantity discount will be granted upon request.

[1] Requires a manufacturer-specific connection device for configuration. 20



2. Antennas

2.1. Antennas with tilt joint

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 15-40-032	LoRa / wMBus-antenna: - SMA-plug - Tip over joint 3 dBi, 868 MHz - Length: 205mm		10,00 €
B 15-40-024	LTE / GSM / UMTS antenna: - SMA plug, 90°-tip over joint		25,00 €

2.2. Magnetic base antennas

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 15-40-030	LoRa / LTE / GSM / UMTS / wMBus-antenna: 2,5m – 3m cable length - SMA plug, - magnetic base antenna		15,00 €
B 15-40-004	LoRa / LTE / GSM / UMTS / wMBus-antenna: 5m cable - SMA-plug - magnetic base antenna		55,00 €

2.3. Antennas for wall or mast mounting

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 15-40-022	LoRa / LTE / GSM / UMTS / wMBus-antenna: - Outdoor 5m LowLoss-cable - SMA-plug - incl. angle bracket for wall mounting		65,00 €
B 15-40-028	LoRa / LTE / GSM / UMTS / wMBus-antenna: - Outdoor 5m LowLoss-cable - SMA-plug - incl. angle bracket & hose clamp for wall or pylon mounting		50,00 €
B 15-40-043	LoRa / wMBus-antenna: 868MHz 3dBi - N-socket - pylon mounting - Length 320mm		95,00 €

The prices stated are prices per unit. When purchasing larger quantities, it is possible that a quantity discount will be granted upon request.

[1] Requires a manufacturer-specific connection device for configuration. 21



2.4. High performance antenna

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 15-40-044	LoRa / wMBus-high performance antenna: • 868MHz • 5dBi • N-socket • pylon mounting • Length 337mm		180,00 €
B 15-40-045	LoRa- /wMBus- high performance antenna: • 868MHz • 8dBi • N-socket • pylon mounting • Length 850mm		200,00 €
B 15-40-046	LoRa- / wMBus high performance antenna: • 868MHz • 12dBi • N-socket • pylon mounting • Length 2240mm		420,00 €

2.5. Surge protection for antennas

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 15-40-080	Surge protection for antennas: • Surge protection for RF applications • Max. frequency range: DC-4 GHz • Max. RF power: 25 W • Uc: 72 Vdc, IL: 10 A • C2: 5 kA, D1: 1 kA • Protection class: IP65 • Connection type: N connector • Input/output: connector/socket		49,50 €

2.6. Mast boom

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 15-40-124	Main arm: • Aluminium		27,00 € (250mm)
B 15-40-125	• Tube diameter: 50 mm, 2mm • Wall distance: 250, 350, 450 mm		31,50 € (350mm)
B 15-40-126	• Vertical height: 250 mm • Mounting plate: 150 mm x 150 mm x 4 mm		34,50 € (450mm)

The prices stated are prices per unit. When purchasing larger quantities, it is possible that a quantity discount will be granted upon request.

[1] Requires a manufacturer-specific connection device for configuration. 22



3. Antenna cable & antenna accessories

3.1. Low Loss coaxial cable SMA-male/female

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 15-40-207	Low Loss coaxial cable SMA-m/f, 7m antenna cable extension		45,00 €
B 15-40-210	Low Loss coaxial cable SMA-m/f, 10m antenna cable extension		55,00 €
B 15-40-215	Low Loss coaxial cable SMA-m/f, 15m antenna cable extension		65,00 €
Other cable lengths are possible on request			

3.2. Low Loss coaxial cable N-male/N-male

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 15-40-302	Low Loss coaxial cable N-male/N-male, 2m antenna cable extension		45,00 €
B 15-40-305	Low Loss coaxial cable N-male/N-male, 5m antenna cable extension		55,00 €
B 15-40-307	Low Loss coaxial cable N-male/N-male, 7,5m antenna cable extension		60,00 €
B 15-40-310	Low Loss coaxial cable N-male/N-male, 10m antenna cable extension		65,00 €
Other cable lengths are possible on request			

3.3. Low Loss coaxial cable N-male/SMA-male

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 15-40-402	Low Loss coaxial cable N-male/SMA-male, 2m antenna cable extension		45,00 €
B 15-40-405	Low Loss coaxial cable N-male/SMA-male, 5m antenna cable extension		55,00 €
B 15-40-407	Low Loss coaxial cable N-male/SMA-male, 7,5m antenna cable extension		60,00 €
B 15-40-410	Low Loss coaxial cable N-male/SMA-male, 10m antenna cable extension		65,00 €
Other cable lengths are possible on request			

3.4. Antenna adapter

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 15-40-062	Angle adapter SMA-male to SMA-female		15,00 €
B 15-40-072	Adapter N-male to SMA-female		25,00 €
B 15-40-074	Adapter N-male to SMA-male		25,00 €

The prices stated are prices per unit. When purchasing larger quantities, it is possible that a quantity discount will be granted upon request.

[1] Requires a manufacturer-specific connection device for configuration. 23



4. wireless M-Bus sensors

4.1. wM-Bus Master

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 31-12-411	wM-Bus Master: • with external wireless M-Bus Module for DIN Rail • incl. antenna • (S1, T1, C1, OMS 3+4)		200,00 €

4.2. wM-Bus to M-Bus converter

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-137	wMbus --> M-Bus converter: • for up to 63 wM-Bus sensors • internal antenna • (S1, T1, C1, OMS 3+4)		145,00 €
B 49-40-138	wMbus --> M-Bus converter: • for up to 63 wM-Bus sensors • incl. external antenna • (S1, T1, C1, OMS 3+4)		170,00 €

4.3. wM-Bus pulse adapter

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-140 (Relay)	Wireless M-Bus pulse converter with 2 Inputs: • PadPulsM2W		80,00 €

The prices stated are prices per unit. When purchasing larger quantities, it is possible that a quantity discount will be granted upon request.

[1] Requires a manufacturer-specific connection device for configuration. 24



5. M-Bus sensors & accessories

5.1. M-Bus starter set

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-31-100	M-Bus starter set for configuration - M-Bus Mirko Master with adapter cable for laptops (USB), for 10 end devices - Adapter for USB to RS232 Free software: Relay MbConf, Relay MbSheet, NZR M-Tool		220,00 €

5.2. External M-Bus level converter

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-31-212 (Elvaco)	External M-Bus level converter: 120 loads - CMeX12S (up to 128 loads)		736,00 €
B 49-31-250 (Elvaco)	External M-Bus level converter: 250 loads - CMeX13S (up to 256 loads)		855,00 €
B 49-34-251 (Relay)	External M-Bus level converter: 250 loads - PW250		904,00 €

5.3. Pulse converter (S0)

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-34-130 (Relay)	S0--> M-Bus converter: 1 channel - Wall-mounted housing - PadPuls M1 - Battery 1,8Ah		61,00 €
B 49-34-131 (Relay)	S0--> M-Bus converter: 1 channel - DIN Rail - PadPuls M1C - S0 according to DIN43864 - Battery 1,8Ah		102,00 €
B 49-34-128 (Relay)	S0--> M-Bus converter: 2 channel - Wall-mounted housing - PadPuls M2 - Battery 1,8Ah		81,00 €

The prices stated are prices per unit. When purchasing larger quantities, it is possible that a quantity discount will be granted upon request.

[1] Requires a manufacturer-specific connection device for configuration. 25



B 49-34-129 (Relay)	S0--> M-Bus converter: 2 channel - DIN Rail - PadPuls M2C - Battery 1,8Ah		92,00 €
B 49-34-113 (Relay)	S0--> M-Bus converter: 4 channel - DIN Rail - PadPuls M4C - Battery 1,8Ah		132,00 €

5.4. Pulse doubler (S0)

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-32-152 (Relay)	S0 Pulse doubler: - double S0 pulse converter 2 Channels to each 2 Outputs		56,00 €

5.5. Digital Inputs to M-Bus

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-134 (Relay)	Digital Inputs (4) to M-Bus converter: PadIn4		138,00 €

5.6. Analogue to M-Bus

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-31-403 (Relay)	Analogue --> M-Bus converter: 1 channel - AnDiPlus		181,00 €

5.7. Power meter M-Bus

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-810 (EMU-Metering)	M-Bus power meter 3/100: - Direct measuring 3-phase power meter with MID-approval - Load profile storage with PTB-A 50.7 - S0 pulse output		186,00 €

The prices stated are prices per unit. When purchasing larger quantities, it is possible that a quantity discount will be granted upon request.

[1] Requires a manufacturer-specific connection device for configuration. 26



B 49-40-811 (EMU-Metering)	M-Bus power meter 3/5: • Current transformers /5 & /1A • 3-phase power meter with MID-approval • Load profile storage with PTB-A 50.7 • S0 pulse output		186,00 €
B 49-40-141 (Device)	Communication adapter for power meters: • IR readout adapter with M-Bus connection • Device DvMBIR		189,00 €

The prices stated are prices per unit. When purchasing larger quantities, it is possible that a quantity discount will be granted upon request.

[1] Requires a manufacturer-specific connection device for configuration. 27



6. Modbus sensors

6.1. Power meter Modbus

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-40-850 (EMU-Metering)	Modbus TCP/IP power meter 3/100: - Direct measuring 3-phase power meter with MID-approval - Load profile storage with PTB-A 50.7 - S0 pulse output		279,50 €
B 49-40-851 (EMU-Metering)	Modbus TCP/IP power meter 3/5: - Current transformers /5 & /1A 3-phase power meter with MID-approval - Load profile storage with PTB-A 50.7 - S0 pulse output		279,50 €
B 49-40-852 (EMU-Metering)	Modbus RTU power meter 3/100: - Direct measuring 3-phase power meter with MID-approval - Load profile storage with PTB-A 50.7 - S0 pulse output		197,50 €
B 49-40-853 (EMU-Metering)	Modbus RTU power meter 3/5: - Current transformers /5 & /1A 3-phase power meter with MID-approval - Load profile storage with PTB-A 50.7 - S0 pulse output		197,50 €
B 49-40-142 (Device)	Communication adapter for power meters: - IR readout adapter with Modbus connection - Device DvModbusIR		189,00 €

The prices stated are prices per unit. When purchasing larger quantities, it is possible that a quantity discount will be granted upon request.

[1] Requires a manufacturer-specific connection device for configuration. 28



7. Analogue sensors

7.1. PT1000 sensors

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-31-303	Pipe contact sensor PT1000: - Class A 3m silicone cable 2-lines - Temperature range -50°C...200°C		25,00 €
B 49-31-305	Pipe contact sensor PT1000: - Class A 5m silicone cable 2-lines - Temperature range -50°C...200°C		30,00 €
B 49-31-316	Outdoor sensor PT1000: - to IP65 2-lines - internal sensor - Temperature range -50°C...90°C		25,00 €
B 49-31-318	Outdoor sensor PT1000: - to IP65 2-lines - external sensor - Temperature range -30°C...90°C		30,00 €

7.2. Room sensor

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-34-361	Room sensor: - CO2 4...20mA 0...2000ppm		185,00 €
B 49-34-363	Combination room sensor: - CO2, temperature 4...20mA - CO2: 0...2000ppm - Temperature -20...50°C		210,00 €
B 49-34-365	Combination room sensor: - CO2, humidity 4...20mA - CO2: 0...2000ppm - Humidity: 10...95%		210,00 €

The prices stated are prices per unit. When purchasing larger quantities, it is possible that a quantity discount will be granted upon request.

[1] Requires a manufacturer-specific connection device for configuration. 29



7.3. Temperature sensors

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-31-331	Temperature sensor: • 4...20 mA • to IP65 • internal PT100 • external sleeve • Temperature range -30°C...90°C		100,00 €

7.4. M-Bus sensors temperature

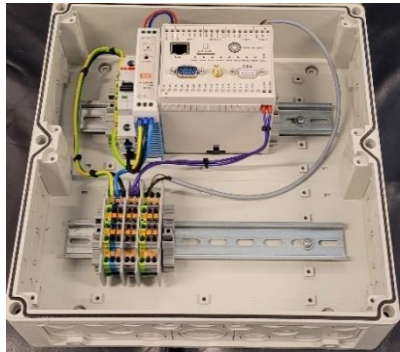
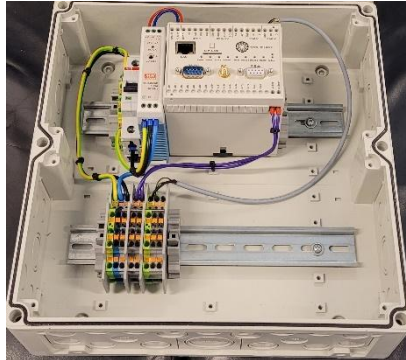
Art.-Nr.	Description	Type / Implementation	Price (netto)
B 49-34-372	M-Bus indoor sensor: • Temperature, humidity • Type THI • Temperature: -20...55°C • Humidity: 0...100%		135,00 €
B 49-34-370	M-Bus outdoor sensor: • Temperature, humidity • Type THO • Temperature: -20°C...55°C • Humidity: 0...100%		215,00 €

The prices stated are prices per unit. When purchasing larger quantities, it is possible that a quantity discount will be granted upon request.

[1] Requires a manufacturer-specific connection device for configuration. 30



8. Outer casing RmCU

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 55-40-880	Switch cabinet steel Rittal (380mm*300mm*200mm): - Pre-assembled on DIN rail incl. power supply unit, cable set, LS-switch - Terminal blocks (PE, N, L & Fieldbus protocol) - Cable entry mat, ready for connection (230V) Possible on request: Additional terminal blocks, locking cylinder, wall bracket etc.	 RmCU is not included in the scope of delivery	230,00 €
B 55-40-810	Enclosure plastic clear view (IP 65) (300mm*300mm*210mm) - Pre-assembled on DIN rail incl. power supply unit, cable set, LS-switch - Terminal blocks (PE, N, L & Fieldbus protocol) - ready for connection (230V) Possible on request: Additional terminal blocks etc.	 RmCU is not included in the scope of delivery	210,00 €
B 55-40-800	Enclosure plastic Opaque (IP 65) (300mm*300mm*210mm) - Pre-assembled on DIN rail incl. power supply unit, cable set, LS-switch - Terminal blocks (PE, N, L & Fieldbus protocol) - ready for connection (230V) Possible on request: Additional terminal blocks etc.	 RmCU is not included in the scope of delivery	210,00 €

The prices stated are prices per unit. When purchasing larger quantities, it is possible that a quantity discount will be granted upon request.

[1] Requires a manufacturer-specific connection device for configuration. 31



B 55-40-820	Enclosure plastic clear view (IP 65) (250mm*185mm*180mm) - Pre-assembled on DIN rail incl. power supply unit, cable set, LS-switch - Terminal blocks (PE, N, L) - ready for connection (230V)	 RmCU is not included in the scope of delivery	180,00 €
	Individual switch cabinets are possible on request		On request

9. Outer casing sensors

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 65-40-210	Outer casing sensors (192mm*164mm*105mm) - Pre-assembled on DIN rail incl. power supply unit, cable set, LS-switch, terminal blocks - ready for connection (230V) - Suitable for e.g. 49-40-650	 Sensor and sensor mounting set is not included in the scope of delivery	110,00 €
B 65-40-220	Outer casing sensors (164mm*121mm*87mm) - Pre-assembled on DIN rail incl. power supply unit, cable set, terminal blocks - ready for connection (230V) - Suitable for e.g. 49-40-617	 Sensor and sensor mounting set is not included in the scope of delivery	95,00 €

The prices stated are prices per unit. When purchasing larger quantities, it is possible that a quantity discount will be granted upon request.

[1] Requires a manufacturer-specific connection device for configuration. 32



10. Accessories outer casing & DIN Rail

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 57-40-310 (ABB)	FI-switch: 2-pole residual current circuit breaker - ABB M compact series F200 - DIN rail mounting - Nominal current 25A - Rated residual current 30mA		60,00 €
B 57-40-320	Power socket: - Schuko power socket on DIN Rail 16A/250V		15,00 €
B 57-40-330	Sensor mounting set: For DIN rail mounting		15,00 €
B 49-33-605	5-Port Ethernet-Switch: - Ethernet-Switch for DIN Rail mounting - Power supply 18...30V DC 5 Ports 10/100Mbit - Autonegotiation - Auto.MDI- /MDI-X		110,00 €
B 15-30-244	Power supply unit 20W Power supply DIN Rail, 24V 1A		25,00 €
B 15-30-246	Power supply unit 40W Power supply DIN Rail, 24V 1,75A		40,00 €
B 15-30-248	Power supply unit 60W Power supply DIN Rail, 24V 2,5A		45,00 €

11. Engineering service: Firmware update & activation of interfaces

Art.-Nr.	Description	Type / Implementation	Price (netto)
B 75-40-560	Firmware Update	See manual	On request
B 76-40-200	Subsequent activation of further interfaces (MQTT, Modbus, BACnet, JSON)	On request (e.g. SSH)	60,50 €

The prices stated are prices per unit. When purchasing larger quantities, it is possible that a quantity discount will be granted upon request.

[1] Requires a manufacturer-specific connection device for configuration. 33