MEDIUM VOLTAGE PRODUCTS

AdvaSense™ KEVA C with 3.25V output

Indoor Voltage Sensors

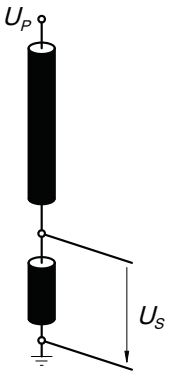
Parameters for Application	Value
Rated primary voltage of application	up to 40.5 kV up to 36 kV up to 24 kV

Sensor Parameters	Value
Rated primary voltage, U_{pr}	38/√3 kV 35/√3 kV 33/√3 kV 30/√3 kV 20/√3 kV 15/√3 kV 13.8/√3 kV 10/√3 kV
Highest voltage for equipment, U_m	40.5 kV 36 kV 24 kV
Rated power frequency withstand voltage	95 kV 70 kV 50 kV
Rated lightning impulse withstand voltage	200 kV 170 kV 125 kV
Rated secondary voltage, U_{sr}	3.25/√3 V
Voltage accuracy class	0.5/3P
Length of cable	2.2; 5; 8; 9.9 m

Sensor principles
Voltage sensors (low-power passive voltage transformers according to IEC 61869-11 standard) offer an alternative way of making the voltage measurement needed for the protection and monitoring of medium voltage power systems. Sensors based on alternative principles have been introduced as successors to conventional instrument transformers in order to significantly reduce size, increase safety, and to provide greater rating standardization and a wider functionality range. These well known principles can only be fully utilized in combination with versatile electronic relays.

Sensor characteristics
Construction of ABB's voltage sensors is done without the use of a ferromagnetic core. This fact results in several important benefits for the user and the application.
The main benefit is that the behavior of the sensor is not influenced by non-linearity and width of hysteresis curve, which results in a highly accurate and linear response over a wide dynamic range of measured quantities. A linear and highly accurate sensor characteristic in the full operating range enables the combination of metering and protection classes in one device.

Voltage sensor
Voltage measurement in KEVA C sensors is based on the resistive divider principle. The output voltage is directly proportional to the input voltage:



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$$U_s = \frac{R_2}{R_1 + R_2} U_p$$

In all cases, the transmitted output signal reproduces the actual waveform of the primary voltage signal.

Protection and control IEDs (Intelligent Electronic Devices)
Protection and control IEDs incorporate the functions of a traditional relay, as well as allow new additional functions. The information transmitted from the sensors to the IED is very accurate, providing the possibility of versatile relay functionality.

However, the IED must be able to operate with sufficient accuracy at a sensor's low input signal level. Modern IEDs are designed for such sensor use.

Modern digital apparatuses (microprocessor based relays) allow protection and measurement functions to be combined. They fully support voltage sensing realized by the single sensor with double the accuracy class designation (e.g.: voltage sensing with combined accuracy class 0.5/3P).

Attention: In order to provide compatibility between voltage sensors and IED, the rated burden of voltage sensor and input impedance of IED shall match. The standard IEC 61869-11 defines rated burden of voltage sensor 2MΩ/50pF. Consequently, the same impedance is expected for input impedance of connected IED.
The other option is to use voltage sensors with rated burden 200 kΩ/350pF what corresponds to the input impedance of various IEDs available on the market.
In case IED with different input impedance would be used, please contact ABB.

02 KEVA C application

Sensor applications

The voltage sensors type KEVA C are intended for use in voltage measurement in gas insulated medium voltage switchgear. The voltage sensors are designed as easy replacement of originally used insulating plugs in the cable connectors. Due to their compact size and optimized design sensors can be used for retrofit purposes as well as in new installations.

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Sensor variants

Sensor type designation	Metal coated (conductive surface)	Picture
KEVA 24 Cxx KEVA 24 C2 4.1 KEVA 36 C2 4.1 KEVA 40 C2 4.1	✖	
KEVA 24 Cxxc KEVA 24 C2 4.1c KEVA 36 C2 4.1c KEVA 40 C2 4.1c	✔	

Tab. 1. Sensor design variants (with and without conductive surface)

Sensor type designation	Cable connectors		
	Manufacturer	Type	Connecting screw for sensor
KEVA 24 C10 KEVA 24 C10c KEVA 24 C11 KEVA 24 C11c	Nexans-Euromold	(K)400 TB/G; (K)440 TB/G	M16
		(K)944 TB/G; (K)400 TE/G	
		(K)400 BE/G-E	
		KAA4	
		400PB-xSA (x = up to 24 kV)	
	Cellpack	CTS-S 630A	
	Prysmian	FMCTs-400	
		FMCTs-400/1250 (C/D)	
		FMCTXs-630/C	
		MSCT/EC-630-C	
	Südkabel	SEHDT 13, 23	
		MUT 33	
KEVA 24 C21 KEVA 24 C21c	ABB Kabeldon	CSE-A 12630, CSE-A 24630	M16
		CSEP-A 12630, CSEP-A 24630	
		SOC 630 (older)	
		CSAP-A 6/12/24 kV	
KEVA 24 C22 KEVA 24 C22c	NKT	CB 12-630, CB 24-630	M12
		CC 12-630, CC 24-630	
		CBC 40,5 630 (max for 24 kV)	
		CSA M12	
		CB 36-400 (for max 24 kV)	
	TE connectivity	RSTI L56xx	
		RSTI-CC L56xx	
KEVA 24 C23 KEVA 24 C23c	TE connectivity	RSTI 58xx/39xx	M16 (For use in NKT connectors with M16 screw shall be used the correct screw)
		RSTI-CC 58xx/39xx	
		RSTI LCxx/LAxx (older)	
	NKT	CB 12-630, CB 24-630	
		CC 12-630, CC 24-630	
		CBC 40,5 630 (max for 24 kV)	
		CSA M16	
KEVA 24 C24 KEVA 24 C24c	Nexans-Euromold	(K)430 TB	M16
		(K)300 PBM/G-630 A	
		300 SA-10-xN (x = up to 24 kV)	
	Prysmian	FMCEAs 630/400	
		MSCEA/EC-630-C	
KEVA 24 C25 KEVA 24 C25c	Cellpack	CTS 630A 24kV	M16
		CTKS 630A 24 kV	
		CTKSA 630A 24kV	

Sensor type designation	Cable connectors		
	Manufacturer	Type	Connecting screw for sensor
KEVA 24 C26 KEVA 24 C26c	Südkabel	SET 12, 24, SAT 12,24	M16
		SEHDK 13.1, 23.1, SAK 12,24	
		SEHDT 23.1	
		MUT 23, MUT 23.1	
		AD 23.1 SP	
KEVA 24 C2 4.1 KEVA 24 C2 4.1c	Nexans - Euromold	(K)480 TB/G; (K)484 TB/G;	M16
		(K)489 TB/G; (K)800 PB/G;	
		(K)804 PB/G; (K)809 PB/G;	
		(K)480 BE/G;	
		800 SA-10-xN (x = up to 24 kV)	
		KAA8	
KEVA 36 C2 4.1 KEVA 36 C2 4.1c	Nexans - Euromold	M480 TB/G	M16
		M800 PB/G	
		M484 TB/G	
		M804 PB/G	
		M489 TB/G	
		M809 PB/G	
		800 SA-10-xN (x=30,33,36)	
		M480 BE/G	
KEVA 40.5 C2 4.1 KEVA 40.5 C2 4.1c	Nexans - Euromold	M480 TB/G	M16
		M800 PB/G	
		M484 TB/G	
		M804 PB/G	
		M489 TB/G	
		M809 PB/G	
		800 SA-10-xN (x=30,33,36)	
		M480 BE/G	

Tab. 2. Sensor variants and use in cable connectors

Note: For use in alternative cable connectors please contact ABB.

— 03 Combined accuracy class

— 04 Connector RJ45

— 05 Ferrules

Differences between Sensors and Instrument Transformers

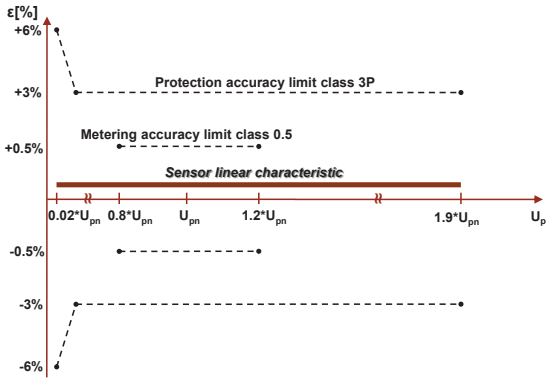
There are some noticeable differences between Sensors and conventional Instrument Transformers:

Linearity

Due to the absence of a ferromagnetic core the sensor has a linear response over a very wide primary voltage range.

Example of voltage measurement range for metering accuracy class 0.5 and protection accuracy class 3P:

The accuracy limits are described on the graph below.



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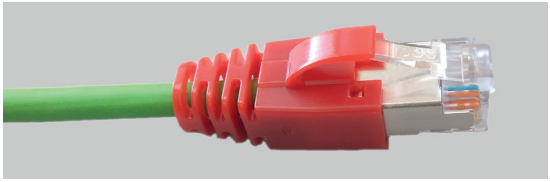
Rated parameters

Because the sensors are highly linear within a very wide range of voltages, the same single sensor can be used for the various rated voltages associated with each specific application up to the specified maximum voltage for equipment. There is no need to specify other parameters such as burden etc. since they are standard over the defined range. To achieve the correct function of the protection and control IED, the selected rated voltage as well as the rated transformation ratio, must be properly set into the IED.



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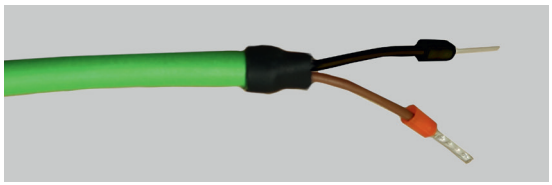

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Secondary cables

The sensor is equipped with a cable for connection with the IED. The cable termination can be realized by the cable connector RJ45 (standard solution) or with ferrules. The sensor accuracy classes are verified up to the connector or ferrules, i.e. considering also its secondary cable. These cables are intended to be connected directly to the IED, and subsequently neither burden calculation nor secondary wiring is needed. Every sensor is therefore accuracy tested when equipped with its own cable and termination.

Connector adapters

To provide connectivity between a sensor with a RJ45 cable connector and IEDs with Twin-BNC connectors a group of adapters were designed. To provide connectivity between current and voltage sensors with RJ45 cable connectors and IEDs with RJ45 connector the coupling adapter was designed. The use of connector or coupling adapters has no influence on the current and/or voltage signal and accuracy of the sensor with the cable.

For more information about connector adapters and coupling adapter refer to Doc. No. 1VLC000710 - Sensor accessories.

Standards

- IEC 61869-11 (2017-12) Instrument transformers - Part 11: Additional requirements for low-power passive voltage transformers
- HD 629.1 S2 (02/2006) + A1 (09/2008) Table 10, test requirements (KEVA 24 C10(c)/ C24(c)/ C25(c), KEVA 24 C2 4.1(c))
- HD 629.1 S3 (2019) Table 17 on cable accessories for system 18/30 (36) kV + HD 629.1 S2 (2006-02) DC voltage dry for (KEVA 36 C2 4.1(c))

Insulation requirements for secondary terminals according to IEC 61869-11

- Power frequency voltage withstand capability: 0.82 kV
- Impulse voltage withstand capability: 1.5 kV 1.2/50 µs

Voltage sensor, rated values

- Rated primary voltage, U_{pr}: 38/√3 kV
  35/√3 kV
  33/√3 kV
  30/√3 kV
  20/√3 kV
  15/√3 kV
  13.8/√3 kV
  10/√3 kV
- Rated frequency, f_r: 50/60 Hz
- Accuracy class: 0.5/3P
- Rated burden, R_{br}:
  - IEC 61869-11: 2 MΩ/50 pF or 200 kΩ/350 pF
- Rated secondary voltage, U_{sr}: 3.25/√3 V
- Rated voltage factor, Fv: 1.9/8h

Temperature category

- Operation: -25°C/+55°C
- Transport and storage: -40°C/+80°C

Cable

- Length: 2.2; 5; 8; 9.9 m
- Connector: RJ45 (CAT-6) ferrules
- Grounding wire length: 0.5 m

Sensor type designation	Highest voltage for equipment Um (kV)	Rated power frequency test voltage (kV)	Rated lightning impulse test voltage (kV)
KEVA 24 Cxx	24	50	125
KE 24 C2 4.1(c)	24	50	125
KEVA 36 C2 4.1(c)	36	70	170
KEVA 40.5 C2 4.1(c)	40.5	95	200

Tab. 3 Highest voltage for equipment and test voltages

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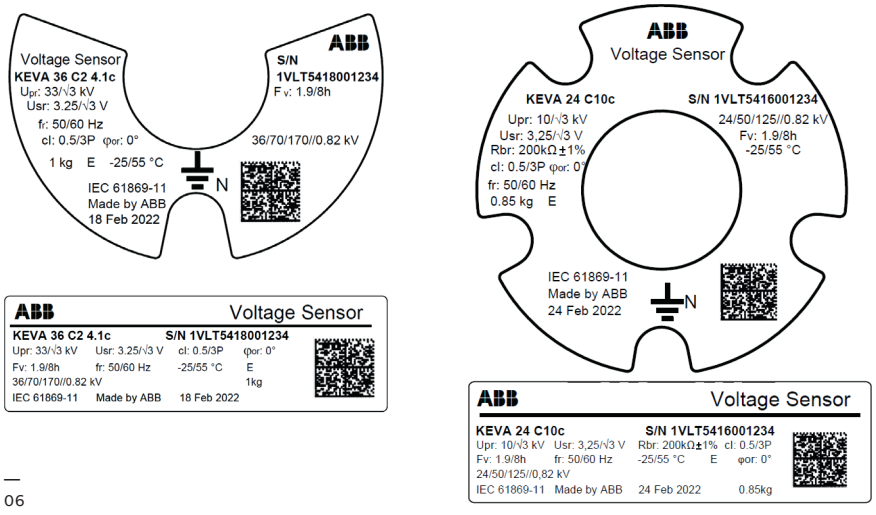
06 Example of a sensor label (IEC 61869-11). In case of rated burned 2 MΩ, 50pF, this value will not be given on rating plate.



Secondary cables with RJ 45 connection

Sensor type designation	Ratio	Burden	Secondary cable length			
			2.2 m	5 m	8 m	9.9 m
KEVA 24 C10	20/√3 kV	2 MΩ/50 pF	1VL5400090V1101	1VL5400090V1103	1VL5400090V1104	1VL5400090V1102
		200 kΩ/350 pF	1VL5400091V1101	1VL5400091V1103	1VL5400091V1104	1VL5400091V1102
	15/√3 kV	2 MΩ/50 pF	1VL5400092V1101	1VL5400092V1103	1VL5400092V1104	1VL5400092V1102
		200 kΩ/350 pF	1VL5400093V1101	1VL5400093V1103	1VL5400093V1104	1VL5400093V1102
	10/√3 kV	2 MΩ/50 pF	1VL5400094V1101	1VL5400094V1103	1VL5400094V1104	1VL5400094V1102
		200 kΩ/350 pF	1VL5400095V1101	1VL5400095V1103	1VL5400095V1104	1VL5400095V1102
KEVA 24 C10c	20/√3 kV	2 MΩ/50 pF	1VL5400090V1201	1VL5400090V1203	1VL5400090V1204	1VL5400090V1202
		200 kΩ/350 pF	1VL5400091V1201	1VL5400091V1203	1VL5400091V1204	1VL5400091V1202
	15/√3 kV	2 MΩ/50 pF	1VL5400092V1201	1VL5400092V1203	1VL5400092V1204	1VL5400092V1202
		200 kΩ/350 pF	1VL5400093V1201	1VL5400093V1203	1VL5400093V1204	1VL5400093V1202
	10/√3 kV	2 MΩ/50 pF	1VL5400094V1201	1VL5400094V1203	1VL5400094V1204	1VL5400094V1202
		200 kΩ/350 pF	1VL5400095V1201	1VL5400095V1203	1VL5400095V1204	1VL5400095V1202
KEVA 24 C11	20/√3 kV	2 MΩ/50 pF	1VL5400160V1101	1VL5400160V1103	1VL5400160V1104	1VL5400160V1102
		200 kΩ/350 pF	1VL5400161V1101	1VL5400161V1103	1VL5400161V1104	1VL5400161V1102
	15/√3 kV	2 MΩ/50 pF	1VL5400162V1101	1VL5400162V1103	1VL5400162V1104	1VL5400162V1102
		200 kΩ/350 pF	1VL5400163V1101	1VL5400163V1103	1VL5400163V1104	1VL5400163V1102
	13.8/√3 kV	2 MΩ/50 pF	1VL5400172V1101	1VL5400172V1103	1VL5400172V1104	1VL5400172V1102
		200 kΩ/350 pF	1VL5400173V1101	1VL5400173V1103	1VL5400173V1104	1VL5400173V1102
	10/√3 kV	2 MΩ/50 pF	1VL5400164V1101	1VL5400164V1103	1VL5400164V1104	1VL5400164V1102
		200 kΩ/350 pF	1VL5400165V1101	1VL5400165V1103	1VL5400165V1104	1VL5400165V1102
KEVA 24 C11c	20/√3 kV	2 MΩ/50 pF	1VL5400160V1201	1VL5400160V1203	1VL5400160V1204	1VL5400160V1202
		200 kΩ/350 pF	1VL5400161V1201	1VL5400161V1203	1VL5400161V1204	1VL5400161V1202
	15/√3 kV	2 MΩ/50 pF	1VL5400162V1201	1VL5400162V1203	1VL5400162V1204	1VL5400162V1202
		200 kΩ/350 pF	1VL5400163V1201	1VL5400163V1203	1VL5400163V1204	1VL5400163V1202
	13.8/√3 kV	2 MΩ/50 pF	1VL5400172V1201	1VL5400172V1203	1VL5400172V1204	1VL5400172V1202
		200 kΩ/350 pF	1VL5400173V1201	1VL5400173V1203	1VL5400173V1204	1VL5400173V1202
	10/√3 kV	2 MΩ/50 pF	1VL5400164V1201	1VL5400164V1203	1VL5400164V1204	1VL5400164V1202
		200 kΩ/350 pF	1VL5400165V1201	1VL5400165V1203	1VL5400165V1204	1VL5400165V1202
KEVA 24 C21	20/√3 kV	2 MΩ/50 pF	1VL5400096V1101	1VL5400096V1103	1VL5400096V1104	1VL5400096V1102
		200 kΩ/350 pF	1VL5400097V1101	1VL5400097V1103	1VL5400097V1104	1VL5400097V1102
	15/√3 kV	2 MΩ/50 pF	1VL5400098V1101	1VL5400098V1103	1VL5400098V1104	1VL5400098V1102
		200 kΩ/350 pF	1VL5400099V1101	1VL5400099V1103	1VL5400099V1104	1VL5400099V1102
	10/√3 kV	2 MΩ/50 pF	1VL5400100V1101	1VL5400100V1103	1VL5400100V1104	1VL5400100V1102
		200 kΩ/350 pF	1VL5400101V1101	1VL5400101V1103	1VL5400101V1104	1VL5400101V1102
KEVA 24 C21c	20/√3 kV	2 MΩ/50 pF	1VL5400096V1201	1VL5400096V1203	1VL5400096V1204	1VL5400096V1202
		200 kΩ/350 pF	1VL5400097V1201	1VL5400097V1203	1VL5400097V1204	1VL5400097V1202
	15/√3 kV	2 MΩ/50 pF	1VL5400098V1201	1VL5400098)V1203	1VL5400098V1204	1VL5400098V1202
		200 kΩ/350 pF	1VL5400099V1201	1VL5400099V1203	1VL5400099V1204	1VL5400099V1202
	10/√3 kV	2 MΩ/50 pF	1VL5400100V1201	1VL5400100V1203	1VL5400100V1204	1VL5400100V1202
		200 kΩ/350 pF	1VL5400101V1201	1VL5400101V1203	1VL5400101V1204	1VL5400101V1202
KEVA 24 C22	20/√3 kV	2 MΩ/50 pF	1VL5400102V1101	1VL5400102V1103	1VL5400102V1104	1VL5400102V1102
		200 kΩ/350 pF	1VL5400103V1101	1VL5400103V1103	1VL5400103V1104	1VL5400103V1102
	15/√3 kV	2 MΩ/50 pF	1VL5400104V1101	1VL5400104V1103	1VL5400104V1104	1VL5400104V1102
		200 kΩ/350 pF	1VL5400105V1101	1VL5400105V1103	1VL5400105V1104	1VL5400105V1102
	10/√3 kV	2 MΩ/50 pF	1VL5400106V1101	1VL5400106V1103	1VL5400106V1104	1VL5400106V1102
		200 kΩ/350 pF	1VL5400107V1101	1VL5400107V1103	1VL5400107V1104	1VL5400107V1102
KEVA 24 C22c	20/√3 kV	2 MΩ/50 pF	1VL5400102V1201	1VL5400102V1203	1VL5400102V1204	1VL5400102V1202
		200 kΩ/350 pF	1VL5400103V1201	1VL5400103V1203	1VL5400103V1204	1VL5400103V1202
	15/√3 kV	2 MΩ/50 pF	1VL5400104V1201	1VL5400104V1203	1VL5400104V1204	1VL5400104V1202
		200 kΩ/350 pF	1VL5400105V1201	1VL5400105V1203	1VL5400105V1204	1VL5400105V1202
	10/√3 kV	2 MΩ/50 pF	1VL5400106V1201	1VL5400106V1203	1VL5400106V1204	1VL5400106V1202
		200 kΩ/350 pF	1VL5400107V1201	1VL5400107V1203	1VL5400107V1204	1VL5400107V1202
KEVA 24 C23	20/√3 kV	2 MΩ/50 pF	1VL5400108V1101	1VL5400108V1103	1VL5400108V1104	1VL5400108V1102
		200 kΩ/350 pF	1VL5400109V1101	1VL5400109V1103	1VL5400109V1104	1VL5400109V1102
	15/√3 kV	2 MΩ/50 pF	1VL5400110V1101	1VL5400110V1103	1VL5400110V1104	1VL5400110V1102
		200 kΩ/350 pF	1VL5400111V1101	1VL5400111V1103	1VL5400111V1104	1VL5400111V1102
	10/√3 kV	2 MΩ/50 pF	1VL5400112V1101	1VL5400112V1103	1VL5400112V1104	1VL5400112V1102
		200 kΩ/350 pF	1VL5400113V1101	1VL5400113V1103	1VL5400113V1104	1VL5400113V1102
KEVA 24 C23c	20/√3 kV	2 MΩ/50 pF	1VL5400108V1201	1VL5400108V1203	1VL5400108V1204	1VL5400108V1202
		200 kΩ/350 pF	1VL5400109V1201	1VL5400109V1203	1VL5400109V1204	1VL5400109V1202
	15/√3 kV	2 MΩ/50 pF	1VL5400110V1201	1VL5400110V1203	1VL5400110V1204	1VL5400110V1202
		200 kΩ/350 pF	1VL5400111V1201	1VL5400111V1203	1VL5400111V1204	1VL5400111V1202
	10/√3 kV	2 MΩ/50 pF	1VL5400112V1201	1VL5400112V1203	1VL5400112V1204	1VL5400112V1202
		200 kΩ/350 pF	1VL5400113V1201	1VL5400113V1203	1VL5400113V1204	1VL5400113V1202
KEVA 24 C24	20/√3 kV	2 MΩ/50 pF	1VL5400114V1101	1VL5400114V1103	1VL5400114V1104	1VL5400114V1102

Sensor type designation	Ratio	Burden	Secondary cable length			
			2.2 m	5 m	8 m	9.9 m
		200 kΩ/350 pF	1VL5400115V1101	1VL5400115V1103	1VL5400115V1104	1VL5400115V1102
	15/√3 kV	2 MΩ/50 pF	1VL5400116V1101	1VL5400116V1103	1VL5400116V1104	1VL5400116V1102
		200 kΩ/350 pF	1VL5400117V1101	1VL5400117V1103	1VL5400117V1104	1VL5400117V1102
	10/√3 kV	2 MΩ/50 pF	1VL5400118V1101	1VL5400118V1103	1VL5400118V1104	1VL5400118V1102
		200 kΩ/350 pF	1VL5400119V1101	1VL5400119V1103	1VL5400119V1104	1VL5400119V1102
KEVA 24 C24c	20/√3 kV	2 MΩ/50 pF	1VL5400114V1201	1VL5400114V1203	1VL5400114V1204	1VL5400114V1202
		200 kΩ/350 pF	1VL5400115V1201	1VL5400115V1203	1VL5400115V1204	1VL5400115V1202
	15/√3 kV	2 MΩ/50 pF	1VL5400116V1201	1VL5400116V1203	1VL5400116V1204	1VL5400116V1202
		200 kΩ/350 pF	1VL5400117V1201	1VL5400117V1203	1VL5400117V1204	1VL5400117V1202
	10/√3 kV	2 MΩ/50 pF	1VL5400118V1201	1VL5400118V1203	1VL5400118V1204	1VL5400118V1202
		200 kΩ/350 pF	1VL5400119V1201	1VL5400119V1203	1VL5400119V1204	1VL5400119V1202
KEVA 24 C25	20/√3 kV	2 MΩ/50 pF	1VL5400120V1101	1VL5400120V1103	1VL5400120V1104	1VL5400120V1102
		200 kΩ/350 pF	1VL5400121V1101	1VL5400121V1103	1VL5400121V1104	1VL5400121V1102
	15/√3 kV	2 MΩ/50 pF	1VL5400122V1101	1VL5400122V1103	1VL5400122V1104	1VL5400122V1102
		200 kΩ/350 pF	1VL5400123V1101	1VL5400123V1103	1VL5400123V1104	1VL5400123V1102
	10/√3 kV	2 MΩ/50 pF	1VL5400124V1101	1VL5400124V1103	1VL5400124V1104	1VL5400124V1102
		200 kΩ/350 pF	1VL5400125V1101	1VL5400125V1103	1VL5400125V1104	1VL5400125V1102
KEVA 24 C25c	20/√3 kV	2 MΩ/50 pF	1VL5400120V1201	1VL5400120V1203	1VL5400120V1204	1VL5400120V1202
		200 kΩ/350 pF	1VL5400121V1201	1VL5400121V1203	1VL5400121V1204	1VL5400121V1202
	15/√3 kV	2 MΩ/50 pF	1VL5400122V1201	1VL5400122V1203	1VL5400122V1204	1VL5400122V1202
		200 kΩ/350 pF	1VL5400123V1201	1VL5400123V1203	1VL5400123V1204	1VL5400123V1202
	10/√3 kV	2 MΩ/50 pF	1VL5400124V1201	1VL5400124V1203	1VL5400124V1204	1VL5400124V1202
		200 kΩ/350 pF	1VL5400125V1201	1VL5400125V1203	1VL5400125V1204	1VL5400125V1202
KEVA 24 C26	20/√3 kV	2 MΩ/50 pF	1VL5400126V1101	1VL5400126V1103	1VL5400126V1104	1VL5400126V1102
		200 kΩ/350 pF	1VL5400127V1101	1VL5400127V1103	1VL5400127V1104	1VL5400127V1102
	15/√3 kV	2 MΩ/50 pF	1VL5400128V1101	1VL5400128V1103	1VL5400128V1104	1VL5400128V1102
		200 kΩ/350 pF	1VL5400129V1101	1VL5400129V1103	1VL5400129V1104	1VL5400129V1102
	10/√3 kV	2 MΩ/50 pF	1VL5400130V1101	1VL5400130V1103	1VL5400130V1104	1VL5400130V1102
		200 kΩ/350 pF	1VL5400131V1101	1VL5400131V1103	1VL5400131V1104	1VL5400131V1102
KEVA 24 C26c	20/√3 kV	2 MΩ/50 pF	1VL5400126V1201	1VL5400126V1203	1VL5400126V1204	1VL5400126V1202
		200 kΩ/350 pF	1VL5400127V1201	1VL5400127V1203	1VL5400127V1204	1VL5400127V1202
	15/√3 kV	2 MΩ/50 pF	1VL5400128V1201	1VL5400128V1203	1VL5400128V1204	1VL5400128V1202
		200 kΩ/350 pF	1VL5400129V1201	1VL5400129V1203	1VL5400129V1204	1VL5400129V1202
	10/√3 kV	2 MΩ/50 pF	1VL5400130V1201	1VL5400130V1203	1VL5400130V1204	1VL5400130V1202
		200 kΩ/350 pF	1VL5400131V1201	1VL5400131V1203	1VL5400131V1204	1VL5400131V1202
KEVA 24 C2 4.1	20/√3 kV	2 MΩ/50 pF	1VL5400141V1101	1VL5400141V1103	1VL5400141V1104	1VL5400141V1102
		200 kΩ/350 pF	1VL5400142V1101	1VL5400142V1103	1VL5400142V1104	1VL5400142V1102
	15/√3 kV	2 MΩ/50 pF	1VL5400139V1101	1VL5400139V1103	1VL5400139V1104	1VL5400139V1102
		200 kΩ/350 pF	1VL5400140V1101	1VL5400140V1103	1VL5400140V1104	1VL5400140V1102
	10/√3 kV	2 MΩ/50 pF	1VL5400137V1101	1VL5400137V1103	1VL5400137V1104	1VL5400137V1102
		200 kΩ/350 pF	1VL5400138V1101	1VL5400138V1103	1VL5400138V1104	1VL5400138V1102
KEVA 24 C2 4.1c	20/√3 kV	2 MΩ/50 pF	1VL5400141V1201	1VL5400141V1203	1VL5400141V1204	1VL5400141V1202
		200 kΩ/350 pF	1VL5400142V1201	1VL5400142V1203	1VL5400142V1204	1VL5400142V1202
	15/√3 kV	2 MΩ/50 pF	1VL5400139V1201	1VL5400139V1203	1VL5400139V1204	1VL5400139V1202
		200 kΩ/350 pF	1VL5400140V1201	1VL5400140V1203	1VL5400140V1204	1VL5400140V1202
	10/√3 kV	2 MΩ/50 pF	1VL5400137V1201	1VL5400137V1203	1VL5400137V1204	1VL5400137V1202
		200 kΩ/350 pF	1VL5400138V1201	1VL5400138V1203	1VL5400138V1204	1VL5400138V1202
KEVA 36 C2 4.1	30/√3 kV	2 MΩ/50 pF	1VL5400143V1101	1VL5400143V1103	1VL5400143V1104	1VL5400143V1102
		200 kΩ/350 pF	1VL5400144V1101	1VL5400144V1103	1VL5400144V1104	1VL5400144V1102
	33/√3 kV	2 MΩ/50 pF	1VL5400145V1101	1VL5400145V1103	1VL5400145V1104	1VL5400145V1102
		200 kΩ/350 pF	1VL5400146V1101	1VL5400146V1103	1VL5400146V1104	1VL5400146V1102
KEVA 36 C2 4.1c	30/√3 kV	2 MΩ/50 pF	1VL5400143V1201	1VL5400143V1203	1VL5400143V1204	1VL5400143V1202
		200 kΩ/350 pF	1VL5400144V1201	1VL5400144V1203	1VL5400144V1204	1VL5400144V1202
	33/√3 kV	2 MΩ/50 pF	1VL5400145V1201	1VL5400145V1203	1VL5400145V1204	1VL5400145V1202
		200 kΩ/350 pF	1VL5400146V1201	1VL5400146V1203	1VL5400146V1204	1VL5400146V1202
KEVA 40.5 C2 4.1	35/√3 kV	2 MΩ/50 pF	1VL5400153V1101	1VL5400153V1103	1VL5400153V1104	1VL5400153V1102
		200 kΩ/350 pF	1VL5400154V1101	1VL5400154V1103	1VL5400154V1104	1VL5400154V1102
	38/√3 kV	2 MΩ/50 pF	1VL5400155V1101	1VL5400155V1103	1VL5400155V1104	1VL5400155V1102
		200 kΩ/350 pF	1VL5400156V1101	1VL5400156V1103	1VL5400156V1104	1VL5400156V1102
KEVA 40.5 C2 4.1c	35/√3 kV	2 MΩ/50 pF	1VL5400153V1201	1VL5400153V1203	1VL5400153V1204	1VL5400153V1202
		200 kΩ/350 pF	1VL5400154V1201	1VL5400154V1203	1VL5400154V1204	1VL5400154V1202
	38/√3 kV	2 MΩ/50 pF	1VL5400155V1201	1VL5400155V1203	1VL5400155V1204	1VL5400155V1202
		200 kΩ/350 pF	1VL5400156V1201	1VL5400156V1203	1VL5400156V1204	1VL5400156V1202

Tab. 3 Secondary cables with RJ 45 connection - Ordering numbers by sensor type, standard and cable length

Secondary cables with ferrules connection

Sensor type designation	Ratio	Burden	Secondary cable length		
			2.2 m	5 m	8 m
KEVA 24 C10	20/√3 kV	2 MΩ/50 pF	1VL5400090V1107	1VL5400090V1105	1VL5400090V1106
		200 kΩ/350 pF	1VL5400091V1107	1VL5400091V1105	1VL5400091V1106
	15/√3 kV	2 MΩ/50 pF	1VL5400092V1107	1VL5400092V1105	1VL5400092V1106
		200 kΩ/350 pF	1VL5400093V1107	1VL5400093V1105	1VL5400093V1106
	10/√3 kV	2 MΩ/50 pF	1VL5400094V1107	1VL5400094V1105	1VL5400094V1106
		200 kΩ/350 pF	1VL5400095V1107	1VL5400095V1105	1VL5400095V1106
KEVA 24 C10c	20/√3 kV	2 MΩ/50 pF	1VL5400090V1207	1VL5400090V1205	1VL5400090V1206
		200 kΩ/350 pF	1VL5400091V1207	1VL5400091V1205	1VL5400091V1206
	15/√3 kV	2 MΩ/50 pF	1VL5400092V1207	1VL5400092V1205	1VL5400092V1206
		200 kΩ/350 pF	1VL5400093V1207	1VL5400093V1205	1VL5400093V1206
	10/√3 kV	2 MΩ/50 pF	1VL5400094V1207	1VL5400094V1205	1VL5400094V1206
		200 kΩ/350 pF	1VL5400095V1207	1VL5400095V1205	1VL5400095V1206
KEVA 24 C11	20/√3 kV	2 MΩ/50 pF	1VL5400160V1107	1VL5400160V1105	1VL5400160V1106
		200 kΩ/350 pF	1VL5400161V1107	1VL5400161V1105	1VL5400161V1106
	15/√3 kV	2 MΩ/50 pF	1VL5400162V1107	1VL5400162V1105	1VL5400162V1106
		200 kΩ/350 pF	1VL5400163V1107	1VL5400163V1105	1VL5400163V1106
	13.8/√3 kV	2 MΩ/50 pF	1VL5400172V1107	1VL5400172V1105	1VL5400172V1106
		200 kΩ/350 pF	1VL5400173V1107	1VL5400173V1105	1VL5400173V1106
	10/√3 kV	2 MΩ/50 pF	1VL5400164V1107	1VL5400164V1105	1VL5400164V1106
		200 kΩ/350 pF	1VL5400165V1107	1VL5400165V1105	1VL5400165V1106
KEVA 24 C11c	20/√3 kV	2 MΩ/50 pF	1VL5400160V1207	1VL5400160V1205	1VL5400160V1206
		200 kΩ/350 pF	1VL5400161V1207	1VL5400161V1205	1VL5400161V1206
	15/√3 kV	2 MΩ/50 pF	1VL5400162V1207	1VL5400162V1205	1VL5400162V1206
		200 kΩ/350 pF	1VL5400163V1207	1VL5400163V1205	1VL5400163V1206
	13.8/√3 kV	2 MΩ/50 pF	1VL5400172V1207	1VL5400172V1205	1VL5400172V1206
		200 kΩ/350 pF	1VL5400173V1207	1VL5400173V1205	1VL5400173V1206
	10/√3 kV	2 MΩ/50 pF	1VL5400164V1207	1VL5400164V1205	1VL5400164V1206
		200 kΩ/350 pF	1VL5400165V1207	1VL5400165V1205	1VL5400165V1206
KEVA 24 C21	20/√3 kV	2 MΩ/50 pF	1VL5400096V1107	1VL5400096V1105	1VL5400096V1106
		200 kΩ/350 pF	1VL5400097V1107	1VL5400097V1105	1VL5400097V1106
	15/√3 kV	2 MΩ/50 pF	1VL5400098V1107	1VL5400098V1105	1VL5400098V1106
		200 kΩ/350 pF	1VL5400099V1107	1VL5400099V1105	1VL5400099V1106
	10/√3 kV	2 MΩ/50 pF	1VL5400100V1107	1VL5400100V1105	1VL5400100V1106
		200 kΩ/350 pF	1VL5400101V1107	1VL5400101V1105	1VL5400101V1106
KEVA 24 C21c	20/√3 kV	2 MΩ/50 pF	1VL5400096V1207	1VL5400096V1205	1VL5400096V1206
		200 kΩ/350 pF	1VL5400097V1207	1VL5400097V1205	1VL5400097V1206
	15/√3 kV	2 MΩ/50 pF	1VL5400098V1207	1VL5400098V1205	1VL5400098V1206
		200 kΩ/350 pF	1VL5400099V1207	1VL5400099V1205	1VL5400099V1206
	10/√3 kV	2 MΩ/50 pF	1VL5400100V1207	1VL5400100V1205	1VL5400100V1206
		200 kΩ/350 pF	1VL5400101V1207	1VL5400101V1205	1VL5400101V1206
KEVA 24 C22	20/√3 kV	2 MΩ/50 pF	1VL5400102V1107	1VL5400102V1105	1VL5400102V1106
		200 kΩ/350 pF	1VL5400103V1107	1VL5400103V1105	1VL5400103V1106
	15/√3 kV	2 MΩ/50 pF	1VL5400104V1107	1VL5400104V1105	1VL5400104V1106
		200 kΩ/350 pF	1VL5400105V1107	1VL5400105V1105	1VL5400105V1106
	10/√3 kV	2 MΩ/50 pF	1VL5400106V1107	1VL5400106V1105	1VL5400106V1106
		200 kΩ/350 pF	1VL5400107V1107	1VL5400107V1105	1VL5400107V1106
KEVA 24 C22c	20/√3 kV	2 MΩ/50 pF	1VL5400102V1207	1VL5400102V1205	1VL5400102V1206
		200 kΩ/350 pF	1VL5400103V1207	1VL5400103V1205	1VL5400103V1206
	15/√3 kV	2 MΩ/50 pF	1VL5400104V1207	1VL5400104V1205	1VL5400104V1206
		200 kΩ/350 pF	1VL5400105V1207	1VL5400105V1205	1VL5400105V1206
	10/√3 kV	2 MΩ/50 pF	1VL5400106V1207	1VL5400106V1205	1VL5400106V1206
		200 kΩ/350 pF	1VL5400107V1207	1VL5400107V1205	1VL5400107V1206
KEVA 24 C23	20/√3 kV	2 MΩ/50 pF	1VL5400108V1107	1VL5400108V1105	1VL5400108V1106
		200 kΩ/350 pF	1VL5400109V1107	1VL5400109V1105	1VL5400109V1106
	15/√3 kV	2 MΩ/50 pF	1VL5400110V1107	1VL5400110V1105	1VL5400110V1106
		200 kΩ/350 pF	1VL5400111V1107	1VL5400111V1105	1VL5400111V1106
	10/√3 kV	2 MΩ/50 pF	1VL5400112V1107	1VL5400112V1105	1VL5400112V1106
		200 kΩ/350 pF	1VL5400113V1107	1VL5400113V1105	1VL5400113V1106
KEVA 24 C23c	20/√3 kV	2 MΩ/50 pF	1VL5400108V1207	1VL5400108V1205	1VL5400108V1206
		200 kΩ/350 pF	1VL5400109V1207	1VL5400109V1205	1VL5400109V1206
	15/√3 kV	2 MΩ/50 pF	1VL5400110V1207	1VL5400110V1205	1VL5400110V1206
		200 kΩ/350 pF	1VL5400111V1207	1VL5400111V1205	1VL5400111V1206
	10/√3 kV	2 MΩ/50 pF	1VL5400112V1207	1VL5400112V1205	1VL5400112V1206
		200 kΩ/350 pF	1VL5400113V1207	1VL5400113V1205	1VL5400113V1206
KEVA 24 C24	20/√3 kV	2 MΩ/50 pF	1VL5400114V1107	1VL5400114V1105	1VL5400114V1106
		200 kΩ/350 pF	1VL5400115V1107	1VL5400115V1105	1VL5400115V1106

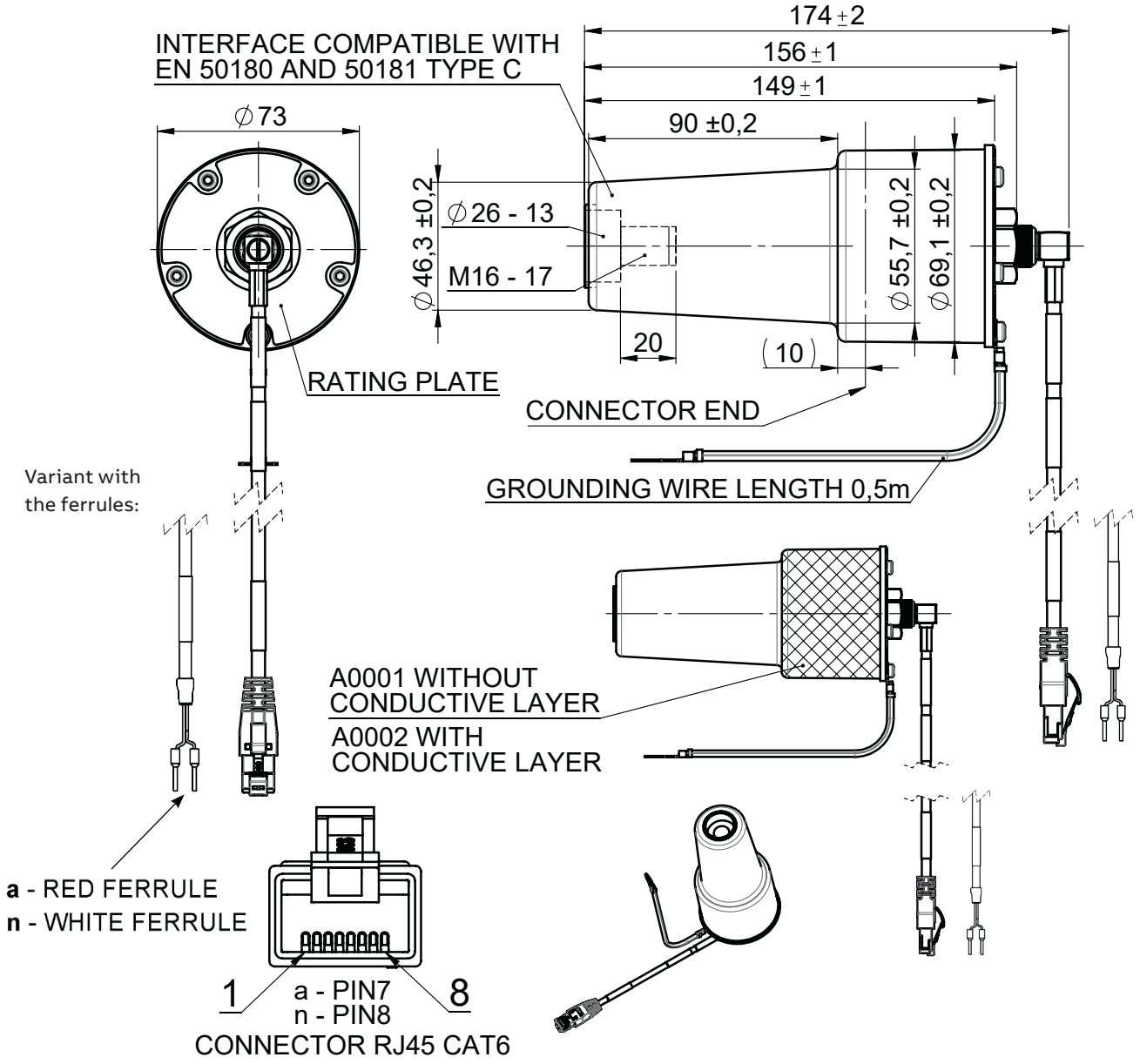
Sensor type designation	Ratio	Burden	Secondary cable length		
			2.2 m	5 m	8 m
	15/√3 kV	2 MΩ/50 pF	1VL5400116V1107	1VL5400116V1105	1VL5400116V1106
		200 kΩ/350 pF	1VL5400117V1107	1VL5400117V1105	1VL5400117V1106
	10/√3 kV	2 MΩ/50 pF	1VL5400118V1107	1VL5400118V1105	1VL5400118V1106
		200 kΩ/350 pF	1VL5400119V1107	1VL5400119V1105	1VL5400119V1106
KEVA 24 C24c	20/√3 kV	2 MΩ/50 pF	1VL5400114V1207	1VL5400114V1205	1VL5400114V1206
		200 kΩ/350 pF	1VL5400115V1207	1VL5400115V1205	1VL5400115V1206
	15/√3 kV	2 MΩ/50 pF	1VL5400116V1207	1VL5400116V1205	1VL5400116V1206
		200 kΩ/350 pF	1VL5400117V1207	1VL5400117V1205	1VL5400117V1206
	10/√3 kV	2 MΩ/50 pF	1VL5400118V1207	1VL5400118V1205	1VL5400118V1206
		200 kΩ/350 pF	1VL5400119V1207	1VL5400119V1205	1VL5400119V1206
KEVA 24 C25	20/√3 kV	2 MΩ/50 pF	1VL5400120V1107	1VL5400120V1105	1VL5400120V1106
		200 kΩ/350 pF	1VL5400121V1107	1VL5400121V1105	1VL5400121V1106
	15/√3 kV	2 MΩ/50 pF	1VL5400122V1107	1VL5400122V1105	1VL5400122V1106
		200 kΩ/350 pF	1VL5400123V1107	1VL5400123V1105	1VL5400123V1106
	10/√3 kV	2 MΩ/50 pF	1VL5400124V1107	1VL5400124V1105	1VL5400124V1106
		200 kΩ/350 pF	1VL5400125V1107	1VL5400125V1105	1VL5400125V1106
KEVA 24 C25c	20/√3 kV	2 MΩ/50 pF	1VL5400120V1207	1VL5400120V1205	1VL5400120V1206
		200 kΩ/350 pF	1VL5400121V1207	1VL5400121V1205	1VL5400121V1206
	15/√3 kV	2 MΩ/50 pF	1VL5400122V1207	1VL5400122V1205	1VL5400122V1206
		200 kΩ/350 pF	1VL5400123V1207	1VL5400123V1205	1VL5400123V1206
	10/√3 kV	2 MΩ/50 pF	1VL5400124V1207	1VL5400124V1205	1VL5400124V1206
		200 kΩ/350 pF	1VL5400125V1207	1VL5400125V1205	1VL5400125V1206
KEVA 24 C26	20/√3 kV	2 MΩ/50 pF	1VL5400126V1107	1VL5400126V1105	1VL5400126V1106
		200 kΩ/350 pF	1VL5400127V1107	1VL5400127V1105	1VL5400127V1106
	15/√3 kV	2 MΩ/50 pF	1VL5400128V1107	1VL5400128V1105	1VL5400128V1106
		200 kΩ/350 pF	1VL5400129V1107	1VL5400129V1105	1VL5400129V1106
	10/√3 kV	2 MΩ/50 pF	1VL5400130V1107	1VL5400130V1105	1VL5400130V1106
		200 kΩ/350 pF	1VL5400131V1107	1VL5400131V1105	1VL5400131V1106
KEVA 24 C26c	20/√3 kV	2 MΩ/50 pF	1VL5400126V1207	1VL5400126V1205	1VL5400126V1206
		200 kΩ/350 pF	1VL5400127V1207	1VL5400127V1205	1VL5400127V1206
	15/√3 kV	2 MΩ/50 pF	1VL5400128V1207	1VL5400128V1205	1VL5400128V1206
		200 kΩ/350 pF	1VL5400129V1207	1VL5400129V1205	1VL5400129V1206
	10/√3 kV	2 MΩ/50 pF	1VL5400130V1207	1VL5400130V1205	1VL5400130V1206
		200 kΩ/350 pF	1VL5400131V1207	1VL5400131V1205	1VL5400131V1206
KEVA 24 C2 4.1	20/√3 kV	2 MΩ/50 pF	1VL5400141V1107	1VL5400141V1105	1VL5400141V1106
		200 kΩ/350 pF	1VL5400142V1107	1VL5400142V1105	1VL5400142V1106
	15/√3 kV	2 MΩ/50 pF	1VL5400139V1107	1VL5400139V1105	1VL5400139V1106
		200 kΩ/350 pF	1VL5400140V1107	1VL5400140V1105	1VL5400140V1106
	10/√3 kV	2 MΩ/50 pF	1VL5400137V1107	1VL5400137V1105	1VL5400137V1106
		200 kΩ/350 pF	1VL5400138V1107	1VL5400138V1105	1VL5400138V1106
KEVA 24 C2 4.1c	20/√3 kV	2 MΩ/50 pF	1VL5400141V1207	1VL5400141V1205	1VL5400141V1206
		200 kΩ/350 pF	1VL5400142V1207	1VL5400142V1205	1VL5400142V1206
	15/√3 kV	2 MΩ/50 pF	1VL5400139V1207	1VL5400139V1205	1VL5400139V1206
		200 kΩ/350 pF	1VL5400140V1207	1VL5400140V1205	1VL5400140V1206
	10/√3 kV	2 MΩ/50 pF	1VL5400137V1207	1VL5400137V1205	1VL5400137V1206
		200 kΩ/350 pF	1VL5400138V1207	1VL5400138V1205	1VL5400138V1206
KEVA 36 C2 4.1	30/√3 kV	2 MΩ/50 pF	1VL5400143V1107	1VL5400143V1105	1VL5400143V1106
		200 kΩ/350 pF	1VL5400144V1107	1VL5400144V1105	1VL5400144V1106
	33/√3 kV	2 MΩ/50 pF	1VL5400145V1107	1VL5400145V1105	1VL5400145V1106
		200 kΩ/350 pF	1VL5400146V1107	1VL5400146V1105	1VL5400146V1106
KEVA 36 C2 4.1c	30/√3 kV	2 MΩ/50 pF	1VL5400143V1207	1VL5400143V1205	1VL5400143V1206
		200 kΩ/350 pF	1VL5400144V1207	1VL5400144V1205	1VL5400144V1206
	33/√3 kV	2 MΩ/50 pF	1VL5400145V1207	1VL5400145V1205	1VL5400145V1206
		200 kΩ/350 pF	1VL5400146V1207	1VL5400146V1205	1VL5400146V1206
KEVA 40.5 C2 4.1	35/√3 kV	2 MΩ/50 pF	1VL5400153V1107	1VL5400153V1105	1VL5400153V1106
		200 kΩ/350 pF	1VL5400154V1107	1VL5400154V1105	1VL5400154V1106
	38/√3 kV	2 MΩ/50 pF	1VL5400155V1107	1VL5400155V1105	1VL5400155V1106
		200 kΩ/350 pF	1VL5400156V1107	1VL5400156V1105	1VL5400156V1106
KEVA 40.5 C2 4.1c	35/√3 kV	2 MΩ/50 pF	1VL5400153V1207	1VL5400153V1205	1VL5400153V1206
		200 kΩ/350 pF	1VL5400154V1207	1VL5400154V1205	1VL5400154V1206
	38/√3 kV	2 MΩ/50 pF	1VL5400155V1207	1VL5400155V1205	1VL5400155V1206
		200 kΩ/350 pF	1VL5400156V1207	1VL5400156V1205	1VL5400156V1206

Tab. 4. Secondary cables with ferrules connection - Ordering numbers by sensor type, standard and cable length

Dimensional Drawings

KEVA 24 C10(c)

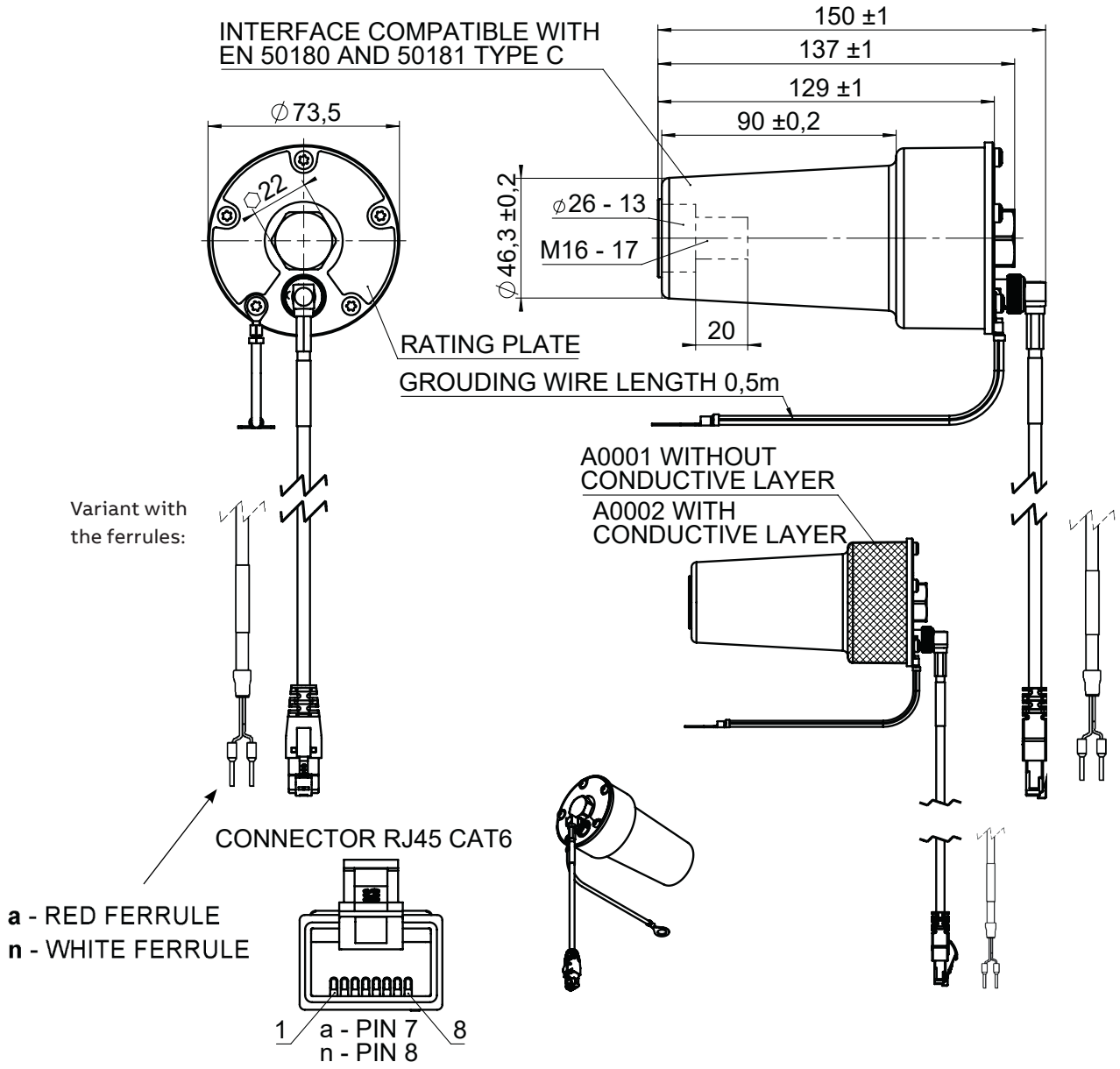
Outline drawing numbers:
2RKA015654A0001 (KEVA 24 C10)
2RKA015654A0002 (KEVA 24 C10c)
Weight: 0.85 kg



Dimensional Drawings

KEVA 24 C11(c)

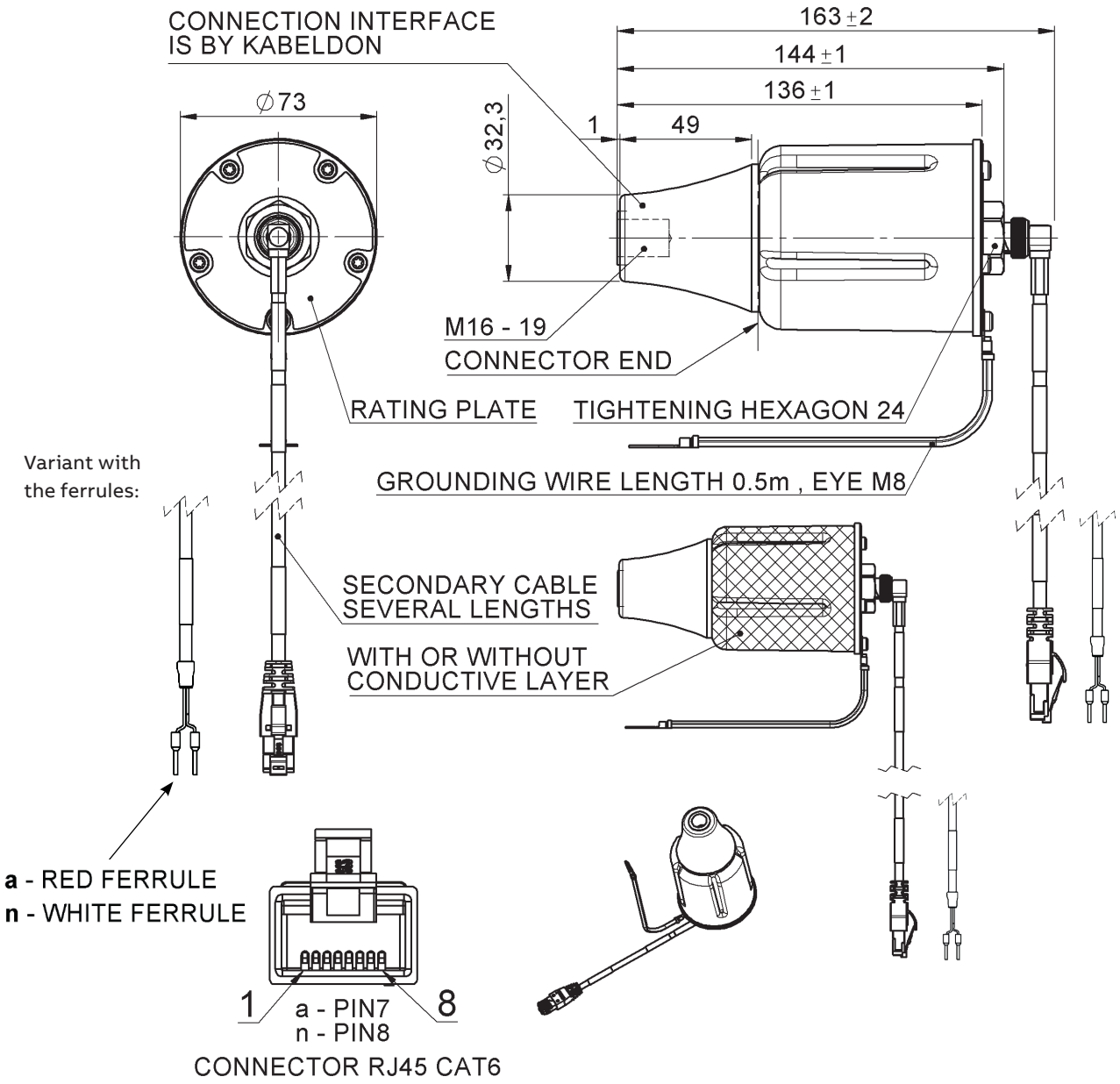
Outline drawing numbers:
2RKA029214A0001 (KEVA 24 C11)
2RKA029214A0002 (KEVA 24 C11c)
Weight: 0.65 kg



Dimensional Drawings

KEVA 24 C21(c)

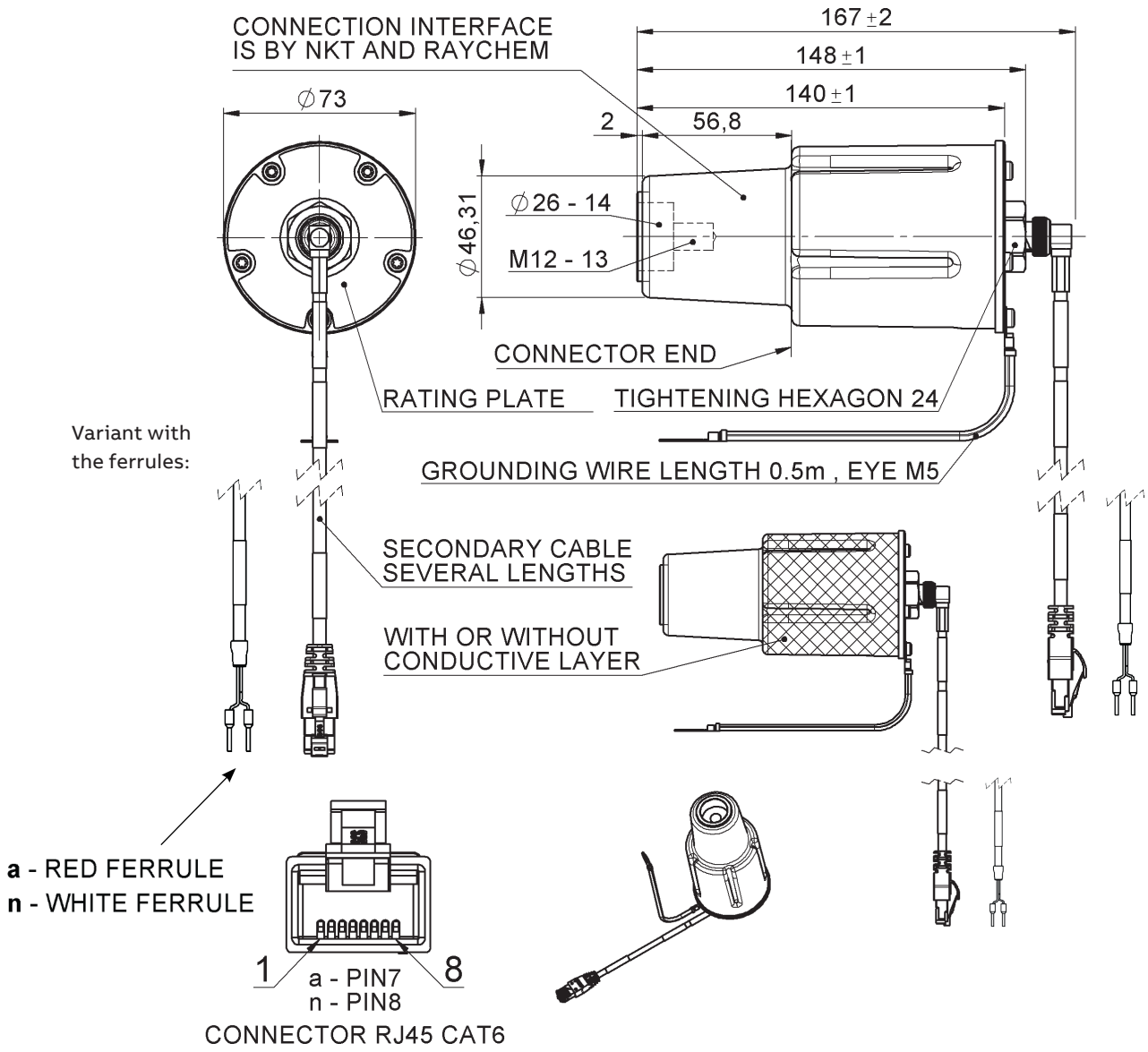
Outline drawing numbers:
2RKA017064A0001 (KEVA 24 C21)
2RKA017064A0002 (KEVA 24 C21c)
Weight: 0.85 kg



Dimensional Drawings

KEVA 24 C22(c)

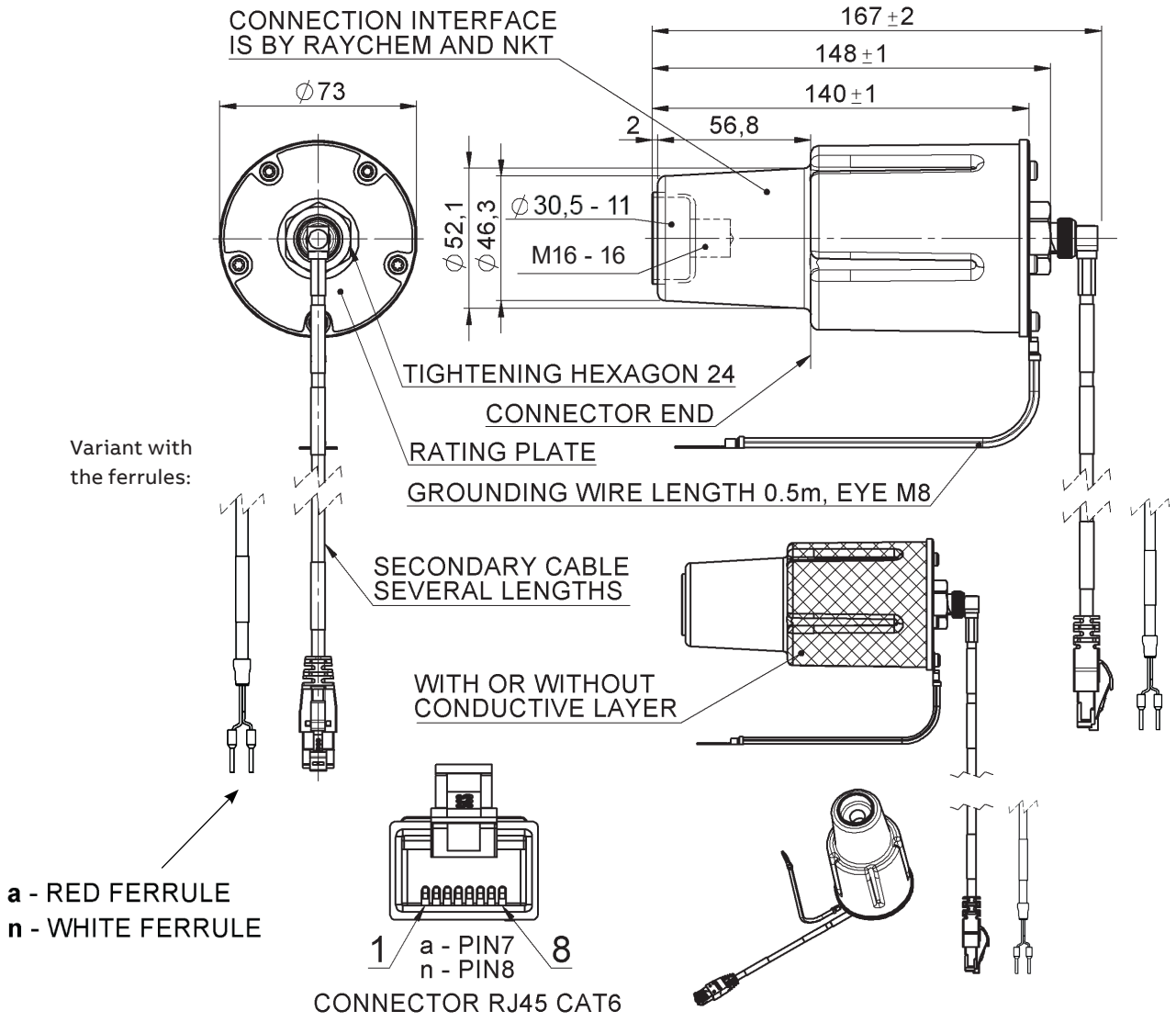
Outline drawing numbers:
2RKA017065A0001 (KEVA 24 C22)
2RKA017065A0002 (KEVA 24 C22c)
Weight: 0.85 kg



Dimensional Drawings

KEVA 24 C23(c)

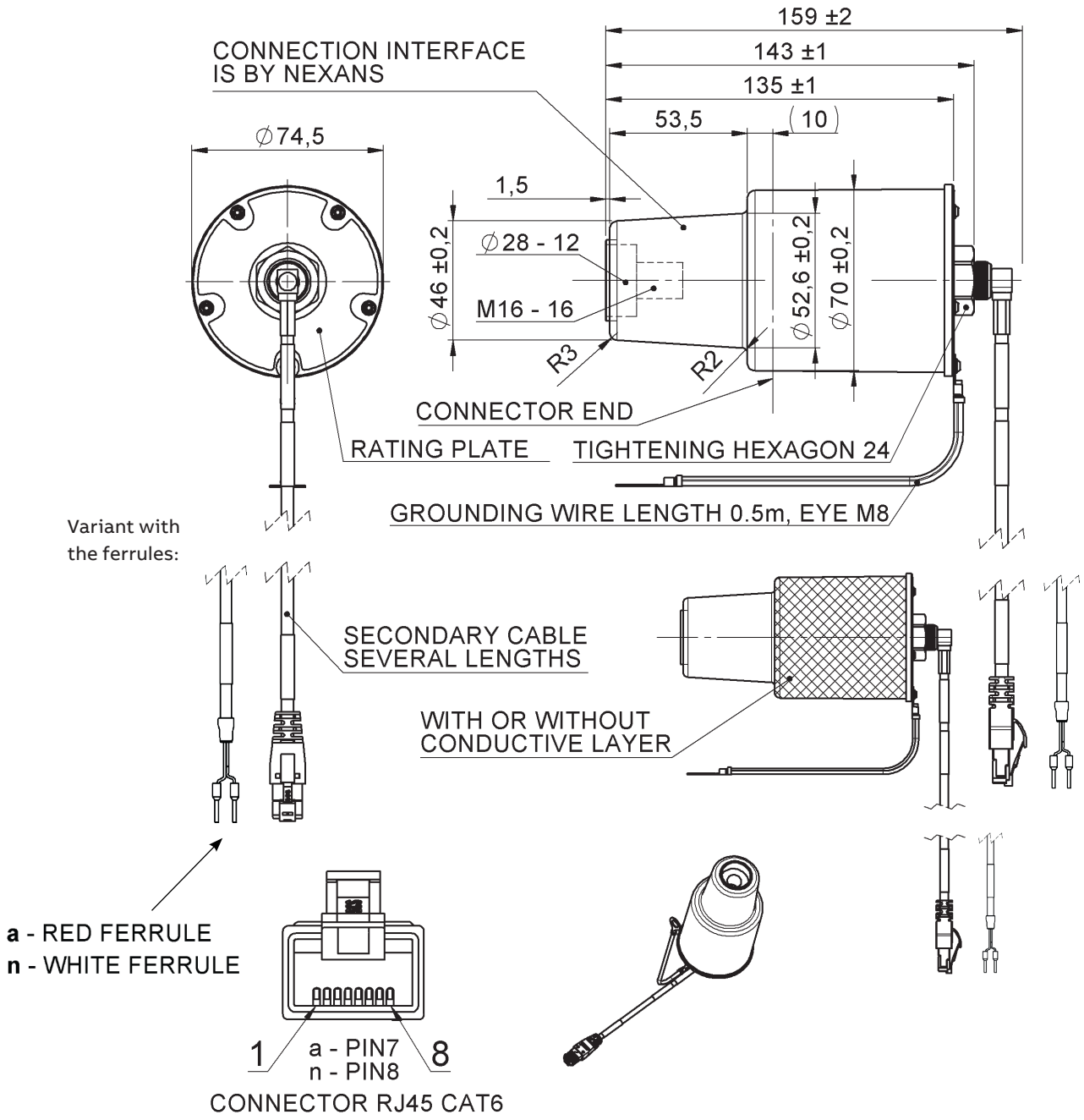
Outline drawing numbers:
2RKA017066A0001 (KEVA 24 C23)
2RKA017066A0002 (KEVA 24 C23c)
Weight: 0.85 kg



Dimensional Drawings

KEVA 24 C24(c)

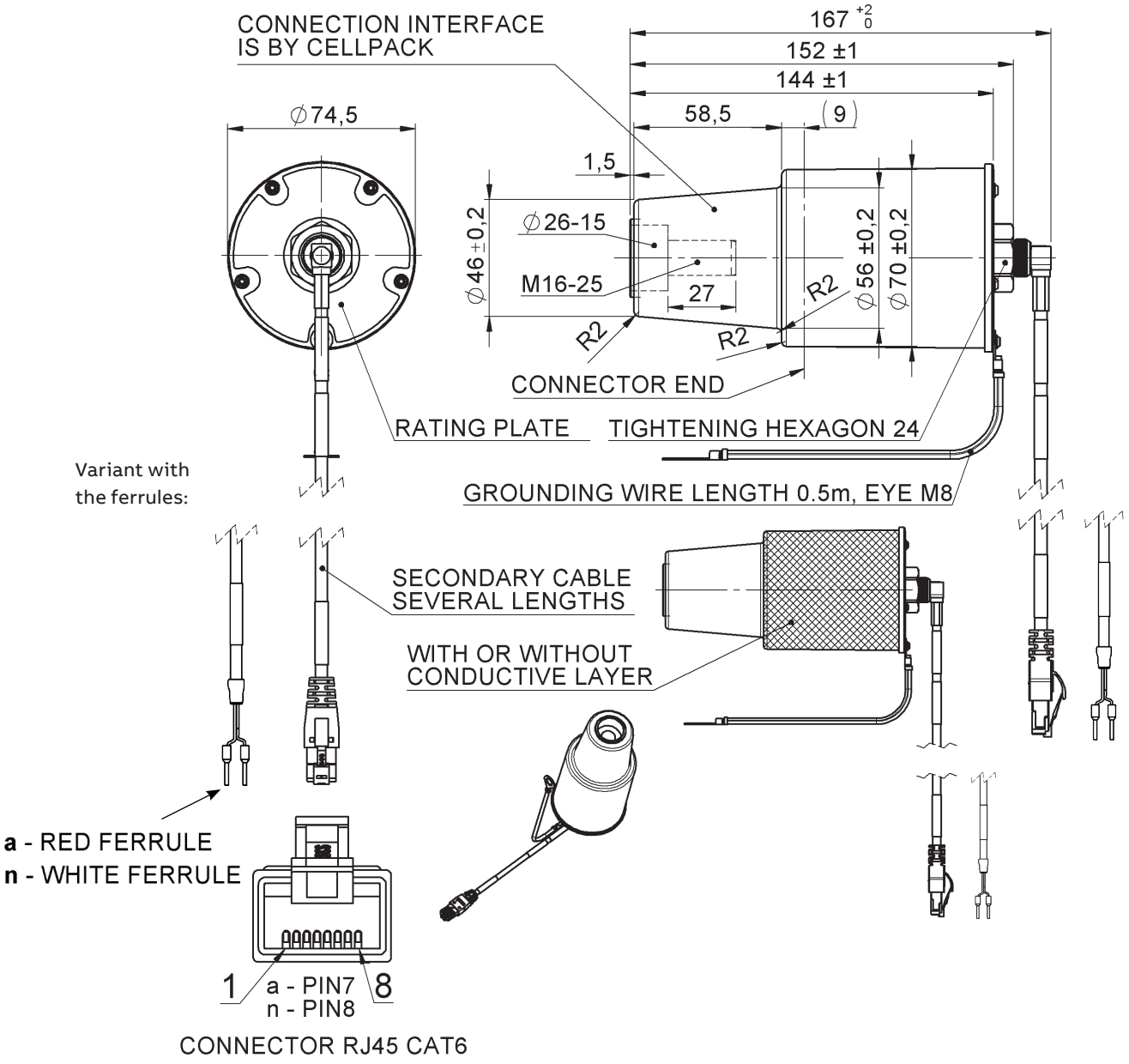
Outline drawing numbers:
2RKA019520A0001 (KEVA 24 C24)
2RKA019520A0002 (KEVA 24 C24c)
Weight: 0.85 kg



Dimensional Drawings

KEVA 24 C25(c)

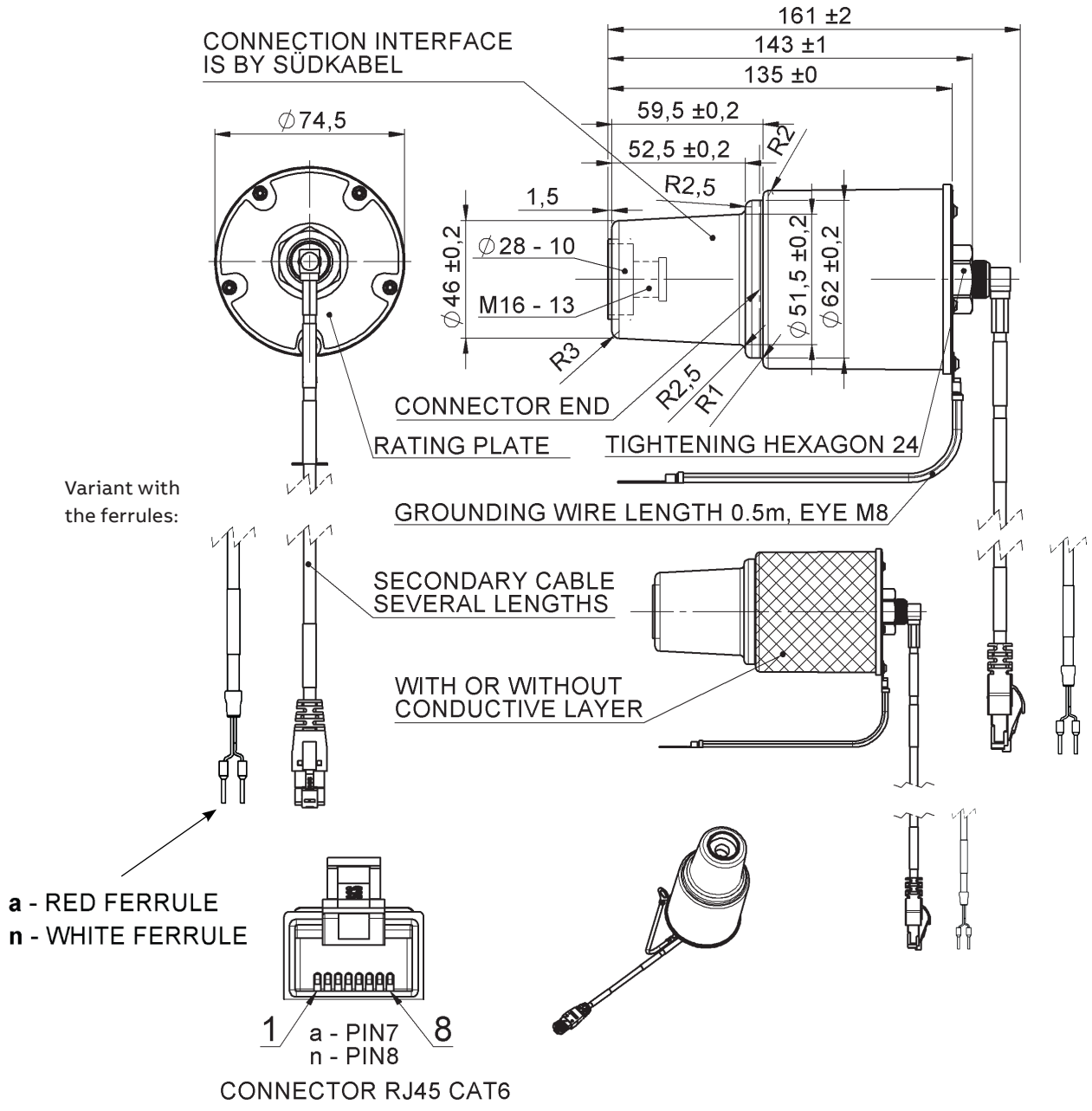
Outline drawing numbers:
2RKA019522A0001 (KEVA 24 C25)
2RKA019522A0002 (KEVA 24 C25c)
Weight: 0.85 kg



Dimensional Drawings

KEVA 24 C26(c)

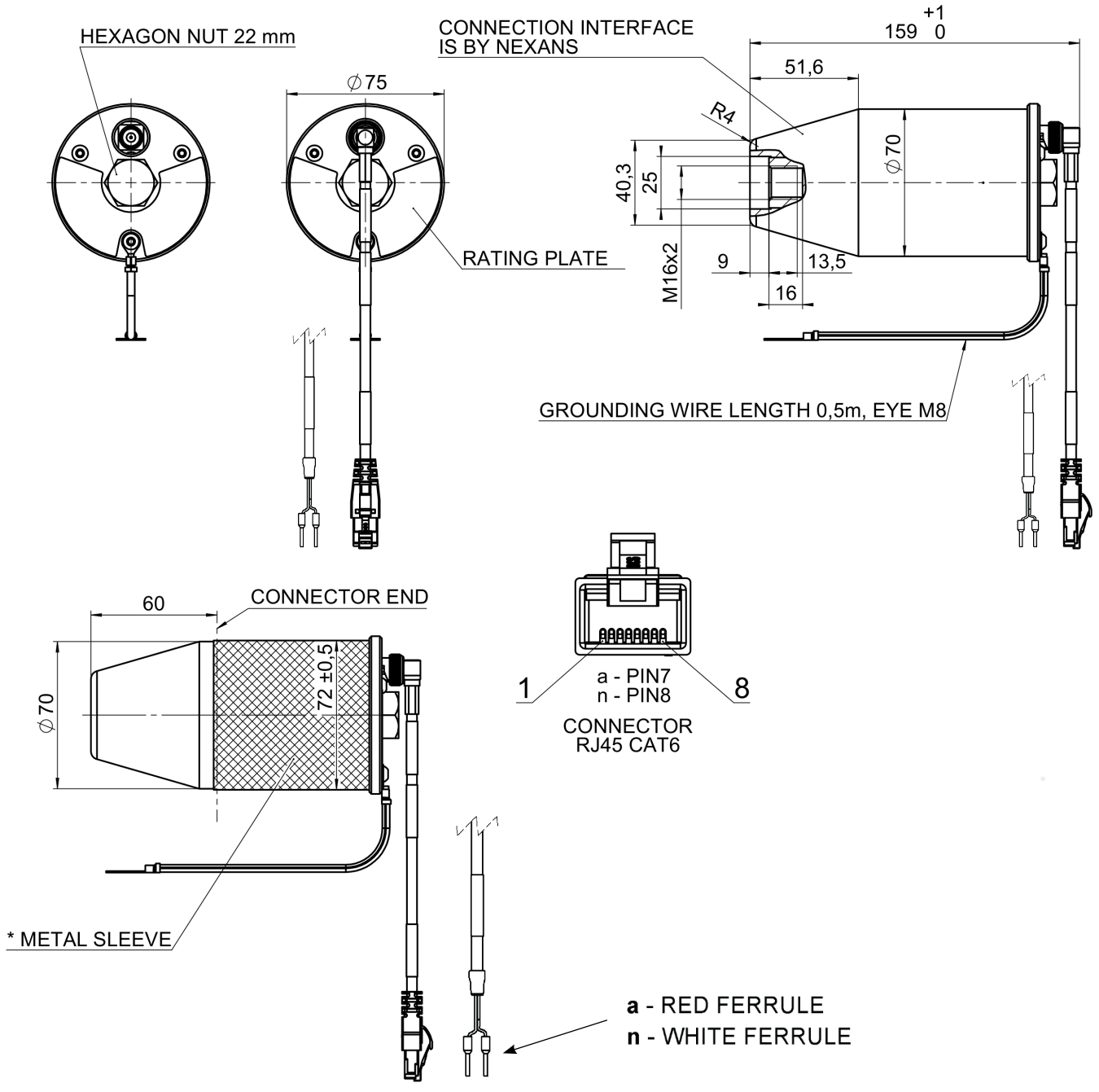
Outline drawing numbers:
2RKA019784A0001 (KEVA 24 C26)
2RKA019784A0002 (KEVA 24 C26c)
Weight: 0.85 kg



Dimensional Drawings

KEVA 24 C2 4.1(c)
KEVA 36 C2 4.1(c)
KEVA 40.5 C2 4.1(c)

Outline drawing numbers:
2RKA024667A0001 (KEVA 24 C2 4.1)
2RKA024667A0002 (KEVA 24 C2 4.1c)
2RKA024667A0003 (KEVA 36 C2 4.1)
2RKA024667A0004 (KEVA 36 C2 4.1c)
2RKA024667A0005 (KEVA 40.5 C2 4.1c)
2RKA024667A0006 (KEVA 40.5 C2 4.1c)
Weight: 1 kg



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