# **EUROMOLD**<sup>®</sup>

MEDIUM VOLTAGE SMART CONNECTORS & ADAPTERS FOR ABB SENSORS

CATALOGUE 2021









# NEXANS NETWORK SOLUTIONS DIV. EUROMOLD

#### **EUROMOLD**

Euromold is the leading European specialised designer, manufacturer and distributor of prefabricated cable accessories for medium voltage energy distribution. Euromold provides a complete range of accessories for underground cables: premoulded EPDM rubber connectors for cables and epoxy bushings for transformers and switchgear, as well as a large range of coldshrinkable terminations and joints from 12 to 42 kV. Euromold is also the manufacturer of electrical components for the high voltage accessories of the Nexans group.

#### ISO 9001 Certificate

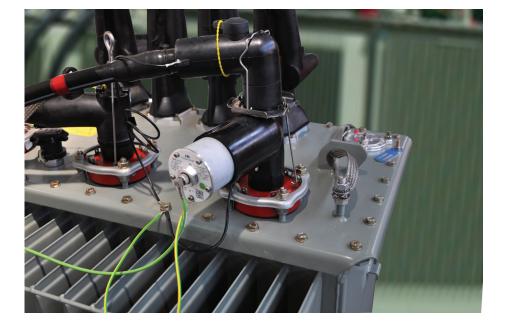
Since 1992, Euromold's commitment to quality is demonstrated by its ISO 9001 certification.

#### International standards

All our products meet the International standards like CENELEC HD 629.1, CENELEC EN 50180, IEC 60137, IEC 60502-4... or country specifications. Official certificates, CESI, KEMA, ATEX... prove the conformity of our products. Long duration tests of existing or new products are continuously performed in our test fields.

#### Laboratory accreditation

Since June 2000, Euromold's independent ELAB laboratory obtained the BELAC accreditation no.144-TEST conform with the European standards for laboratories ISO 17025 for electrical testing of low and medium voltage cable accessories according to the international standards EN 50393, IEC 60502-4, IEC 61442 and HD 629.



While every care is taken to ensure that the information contained in this publication is correct, no legal responsibility can be accepted for any inaccuracy. Nexans Network Solutions N.V. - Div. Euromold reserves the right to alter or modify the characteristics of its products described in this catalogue as standards and technology evolve.

## MEDIUM VOLTAGE SMART CONNECTORS & ADAPTERS

#### TABLE OF CONTENTS

Interface A - Smart adapters Interface C - Smart connectors

## SMART ADAPTERS

#### **CONNECTING POSSIBILITIES**

← Dia. 31<sup>+0.1</sup>→

Dia. for pin 7.9<sup>+0.02</sup>-0.05

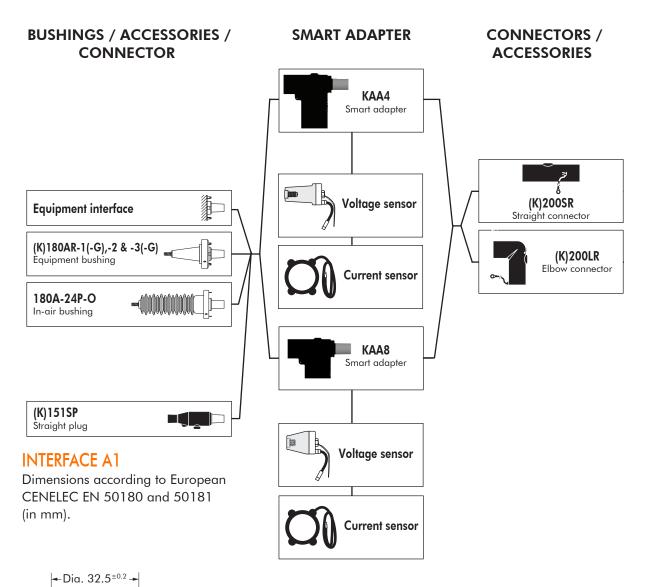
48 \_0.2

9 min

1

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– Dia. 48.5<sup>±0.2</sup> —





## KAAx SMART ADAPTER WITH ABB KEVA/KECA SENSORS

#### INTERFACE A SMART ADAPTER

#### **APPLICATION**

Intelligent adapter factory fitted with voltage sensor enabling a unique solution for voltage measurement.

Designed for easy installation on MV/LV transformers, for new implantations or retrofiting, and requiring no cable modification. To be used with Interface A 250 A separable connectors and equipment bushings.

Sensor can be interfaced with any IEC 61869-10 and IEC 61869-11 complaint Intelligent Electronic Device (IED) for protection and monitoring or other compatible application.

#### DESIGN

- Smart Adapter comprising:
- 1. Conductive EPDM insert.
- 2. Conductive EPDM jacket.
- 3. Insulating EPDM layer.
- 4. Type A interface as described by CENELEC EN 50180 and 50181.
- 5. Conductor contact.
- 6. Earthing lead.
- 7. ABB KEVA voltage sensor.
- 8. Sensor secondary cable.

## SPECIFICATIONS AND CABLE STANDARDS

The KAA smart adapter meets the requirements of CENELEC HD 629.1.

The KEVA and KECA sensors meet the requirements of IEC61869-10 and -11.

#### TECHNICAL CHARACTERISTICS

- High combined accuracy class of 0.5/3P for voltage measurement and 0.5/5P630 for current measurement.
- Fully certified mechanical and electrical assembly supported by joint qualification according to HD629.1.
- Each adapter assembly is tested for AC withstand and partial discharge prior to leaving the factory.

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3



6/10 (12) kV 6.35/11 (12) kV 8.7/15 (17.5) kV 12/20 (24) kV 12.7/22 (24) kV

#### Up to 24 kV - 250 A

# **EUROMOLD**®

Smart		Voltago ma	Cur	rrent measurement		
adapter model	Model	Voltage Um (kV)	asurement Type	Model	Max Application Current (A)	Туре
KAA4	KEVA 24 C10		Resistive divider	. KECA 80 D85	4000	Split core
NAA4	KEVA 24 C10c		Resistive divider, conductive surface			
KAA8	KEVA 24 C2 4.1	up to 24 kV	Resistive divider	RECA 60 D65	4000	Rogowski
	KEVA 24 C2 4.1c		Resistive divider, conductive surface			

06/2021



Kit configuration may change for different apllications, please contact us for a customized offer.



Smart adapter

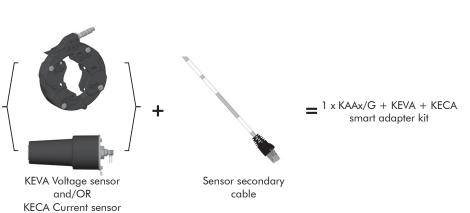
#### ORDERING INSTRUCTIONS

To order the right adapter or sensor for your application, refer to their specific catalog pages.

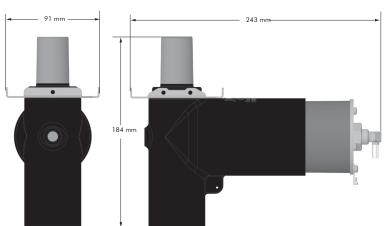
#### SENSOR ASSEMBLY

Current sensor KECA 80 D85 shall be installed on shielded cable using a clamping system which allows assembly on different diameters of MV cable. Voltage sensors KEVA C are assembled in place of the insulating plug in cable connectors.

#### LAYOUT



Characteristic	Voltage sensor	Current sensor Split core KECA 80 D85	
	g		
Model	KEVA 24 Cxx		
Rated primary voltage/current	up to 22/√3 kV	80A	
Rated frequency	50/60Hz		
Accuracy class	0,5/3P	0,5P/5P630	
Rated burden	2M Ω/ 50pF or 200k Ω/ 350pF	2M Ω/ 50pF	
Rated transformation ratio	1:10000 V/V or 3.25 V/√3 kV	80A/150mV @50Hz 80A/180mV @60Hz	
Inner diameter	-	85 mm	
Secondary cable length	5	m	
Plug type	RJ45 or open 2-pins	RJ45	



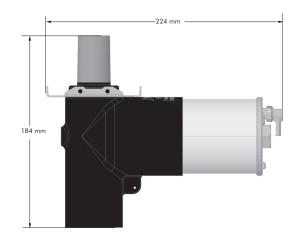
KAA4+KEVA 24 C10



Rated voltage 12/20 (24) kV



Interface A (250A)



KAA8+KEVA 24 C2 4.1C



For other cables length and custom applications. Please contact our representative.



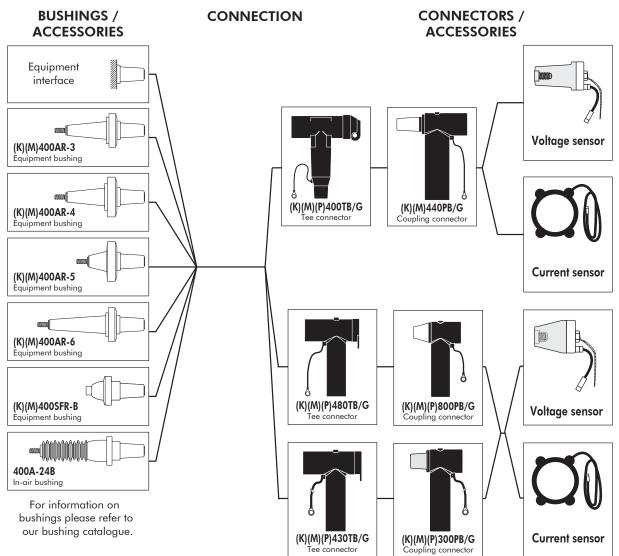
Components can be ordered individually.

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The kit also comprises lubricant, wipers and installation instructions.

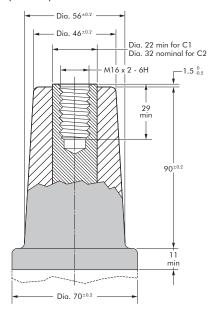
## SMART CONNECTORS

#### **CONNECTING POSSIBILITIES**



#### **INTERFACE C1 & C2**

Dimensions according to European CENELEC EN 50180 and 50181 (in mm).



ln mm.

## 400/440TB & 440PB WITH ABB KEVA/KECA

#### INTERFACE C SMART CONNECTOR

#### **APPLICATION**

Voltage and/or current measurment sensors on medium voltage connectors attached to equipment (transformers, switchgear, motors,...). Sensor can be interfaced with any IEC 61869-10 and IEC 61869-11 complaint Intelligent Electronic Device (IED) for protection and monitoring or other compatible application.

#### DESIGN

Separable connector comprising:

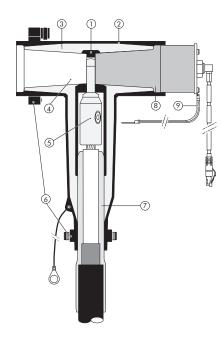
- 1. Conductive EPDM insert.
- 2. Conductive EPDM jacket.
- 3. Insulating EPDM layer.
- 4. Type C interface as described by CENELEC EN 50180 and 50181.
- 5. Conductor contact.
- 6. ABB KECA current sensor.
- 7. Cable reducer.
- 8. ABB KEVA voltage sensor.
- 9. Earthing lead.

# SPECIFICATIONS AND STANDARDS

The 400TB separable connector meets the requirements of CENELEC HD 629.1. The KEVA and KECA sensors meet the requirements of IEC61869-10 and -11.

#### TECHNICAL CHARACTERISTICS

- High combined accuracy class of 0.5/3P for voltage measurement and 0.5/5P630 for current measurement.
- Fully certified mechanical and electrical assembly supported by joint qualification according to HD629.1.





6/10 (12) kV 6.35/11 (12) kV 8.7/15 (17.5) kV 12/20 (24) kV 12.7/22 (24) kV

#### Up to 24 kV - 630 A

# **EUROMOLD**®

Connector	Voltage measurment			Current measurment			
model	Model	Voltage Um (kV)	Туре	Model	Max application current (A)	Туре	
(K)400TB/G	KEVA 24 C10	Up to 24	Resistive divider	KECA 80 C85	4000	Closed core Rogowski	
400PB-10SA	KEVA 24 C10c		Resistive divider, conductive surface	KECA 80 D85	4000	Split core Rogowski	
(K)440TB/G	KEVA 24 C10		Resistive divider			Split core	
(K)440PB/G	KEVA 24 C10c	Up to 24	Resistive divider, conductive surface	KECA 80 D85	4000	Rogowski	

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# Nexans

Kit configuration may change for different apllications, please contact us for a customized offer. The kit also comprises lubricant, wipers, installation instructions and crimp chart.



Connector kit (K)(M)(P)400BT/G KEVA Voltage sensor and/OR KECA Current sensor =1 x 400TB + KEVA + KECA Smart connector kit

Sensor secondary cable

#### ORDERING INSTRUCTIONS

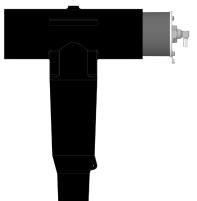
To order the right connector or sensor for your application, refer to the specific catalog pages.

#### SENSOR ASSEMBLY

Current sensor KECA 80 C85 shall be installed on shielded head of cable connector using clamping system. Current sensor KECA 80 D85 shall be installed on shielded cable using a clamping system which allows assembly on different diameters of MV cable. Voltage sensors KEVA C are assembled in place of the insulating plug in cable connectors.

Characteristic	Voltage sensor	Current sensor		
Characteristic	vonage sensor	Split core	Closed core	
Model	KEVA 24 Cxx	KECA 80 D85	KECA 80 C85	
Rated primary voltage/current	up to 22/√3 kV	80	DA	
Rated frequency		50/60Hz		
Accuracy class	0,5/3P	0,5P/5P630		
Rated burden	2M Ω/ 50pF or 200k Ω/ 350pF	2M Ω/ 50pF		
Rated transformation ratio	1:10000 V/V or 3.25 V/√3 kV	80A/150mV @50Hz 80A/180mV @60Hz		
Inner diameter	-	85 mm		
Secondary cable length	5 m			
Plug type	RJ45 or open 2-pins	RJ45		

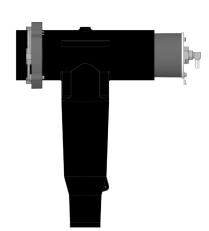
#### LAYOUT



400TB+KEVA 24 C10



Rated voltage 12/20 (24) kV



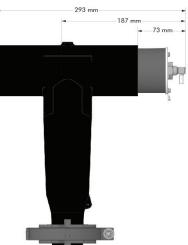
400TB+KEVA 24 C10 + KECA 80 C85



Interface C (630A)



For other cables length and custom applications. Please contact our representative.



400TB+KEVA 24 C10 + KECA 80 D85



Components can be ordered individually.

### 480TB & 800PB WITH ABB KEVA/KECA

#### INTERFACE C SMART CONNECTOR

#### **APPLICATION**

Voltage and/or current measurement sensors on medium voltage connectors attached to equipment (transformers, switchgear, motors,...). Sensor can be interfaced with any IEC 61869-10 and IEC 61869-11 complaint Intelligent Electronic Device (IED) for protection and monitoring or other compatible application.

#### DESIGN

Separable connector comprising:

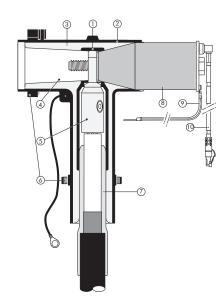
- 1. Conductive EPDM insert.
- 2. Conductive EPDM jacket.
- 3. Insulating EPDM layer
- 4. Type C interface as described by CENELEC EN 50180 and 50181.
- 5. Conductor contact.
- 6. ABB KECA current sensor.
- 7. Cable reducer.
- 8. ABB KEVA voltage sensor.
- 9. Earthing lead.
- 10. Sensor secondary cable.

# SPECIFICATIONS AND STANDARDS

The 480TB separable connector meets the requirements of CENELEC HD 629.1.S2. The KEVA and KECA sensors meet the requirements of IEC61869-10 and -11.

#### TECHNICAL CHARACTERISTICS

- High combined accuracy class of 0.5/3P for voltage measurement and 0.5/5P630 for current measurement.
- Fully certified mechanical and electrical assembly supported by joint qualification according to HD629.1.





6/10 (12) kV 6.35/11 (12) kV 8.7/15 (17.5) kV 12/20 (24) kV 12.7/22 (24) kV 18/30 (36) kV 19/33 (36) kV 20.8/36 (42) kV

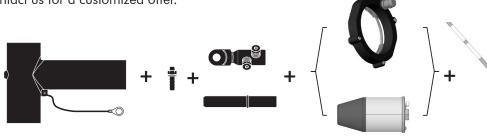
#### Up to 42 kV - 630 A

# **EUROMOLD**®

Connector	Vo	ltage measurment	ł	Current measurment		
model	Model	Voltage Um (kV)	Туре	Model	Max application current (A)	Туре
	KEVA 24 C2 4.1		Resistive divider	KECA 80 C85	4000	
(K)(M)(P)480TB/G (K)(M)(P)484TB/G	KEVA 24 C2 4.1c	Up to 24	with conductive surface			Closed core Rogowski
(K)(M)(P)489TB/G (K)(M)(P)800PB/G		Up to 36	Resistive divider			
(K)(M)(P)804PB/G (K)(M)(P)809PB/G	KEVA 36 C2 4.1c		with conductive surface	KECA 80 D85	85 4000	Split core Rogowski
800SA	KEVA 40.5 C2 4.1		Resistive divider			
	KEVA 40.5 C2 4.1c	Up to 42	with conductive surface	1		NOGOWSKI



Kit configuration may change for different apllications, please contact us for a customized offer.



1 x 480TB + KEVA + KECA Smart connector kit

KEVA Voltage sensor and/OR KECA Current sensor



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#### ORDERING INSTRUCTIONS

Connector kit (K)480BT/G

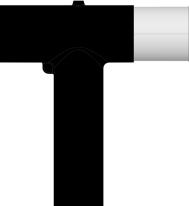
To order the right connector or sensor for your application, refer to the specific catalog pages.

#### SENSOR ASSEMBLY

Current sensor KECA 80 C85 shall be installed on shielded head of cable connector using clamping system. Current sensor KECA 80 D85 shall be installed on shielded cable using a clamping system which allows assembly on different diameters of MV cable. Voltage sensors KEVA C are assembled as would an insulating plug in cable connectors.

		Current sensor		
Characteristic	Voltage sensor			
		Split core	Closed core	
Model	KEVA 24/36/42 Cxx	<b>KECA 80 D85</b>	KECA 80 C85	
Rated primary voltage/current	up to 40.5/√3 kV	80	DA	
Rated frequency	50/60Hz			
Accuracy class	0,5/3P 0,5P/5P630			
Rated burden	2M Ω / 50 pF			
Rated transformation ratio	1,10000 \///	80A/150mV @50Hz		
Rated transformation ratio	1:10000 V/V	80A/180mV @60Hz		
Inner diameter	- 85 mm		mm	
Secondary cable length	5 m			
Plug type	RJ 45			

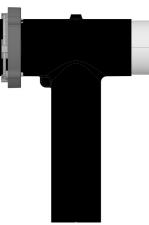
#### LAYOUT



480TB+KEVA 24 C2 4.1c



Rated voltage 12/20 (24) kV



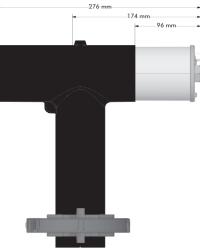
480TB+KEVA 24 C2 4.1c+KECA 80 C85



InterfaceC (630A)



For other cables length and custom applications. Please contact our representative.



480TB+KEVA 24 C2 4.1c+KECA 80 D85



Components can be ordered individually.

### 430TB & 300PB WITH ABB KEVA/KECA

#### INTERFACE C SMART CONNECTOR

#### **APPLICATION**

Voltage and/or current measurement sensors on medium voltage connectors attached to equipment (transformers, switchgear, motors,...). Sensor can be interfaced with any IEC 61869-10 and IEC 61869-11 complaint Intelligent Electronic Device (IED) for protection and monitoring or other compatible application.

#### DESIGN

Separable connector comprising:

- 1. Conductive EPDM insert.
- 2. Conductive EPDM jacket.
- 3. Insulating EPDM layer
- 4. Type C interface as described by CENELEC EN 50180 and 50181.
- 5. Conductor contact.
- 6. ABB KECA current sensor.
- 7. Cable reducer.
- 8. ABB KEVA voltage sensor.
- 9. Earthing lead.
- 10. Sensor secondary cable.

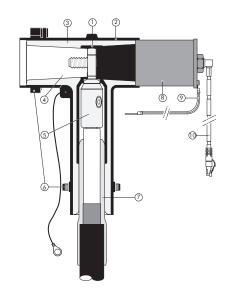
# SPECIFICATIONS AND STANDARDS

The 430TB separable connector meets the requirements of CENELEC HD 629.1.

The KEVA and KECA sensors meet the requirements of IEC61869-10 and -11.

#### TECHNICAL CHARACTERISTICS

- High combined accuracy class of 0.5/3P for voltage measurement and 0.5/5P630 for current measurement.
- Fully certified mechanical and electrical assembly supported by joint qualification according to HD629.1.





6/10 (12) kV 6.35/11 (12) kV 8.7/15 (17.5) kV 12/20 (24) kV 12.7/22 (24) kV

#### Up to 24 kV - 630 A

# **EUROMOLD**®

Connector model	Voltage measurment			Current measurment		
model	Model	Voltage Um (kV)	Туре	Model	Max application current (A)	Туре
(K)430TB/G	KEVA 24 C24		Resistive divider	KECA 80 C85	4000	Closed core Rogowski
(K)300PB/G 300SA	KEVA 24 C24c	Up to 24	Resistive divider conductive surface	KECA 80 D85	4000	Split core Rogowski

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Kit configuration may change for different apllications, please contact us for a customized offer. The kit also comprises lubricant, wipers, installation instructions and crimp chart.



Connector kit (K)430BT/G



Sensor secondary cable

#### **ORDERING INSTRUCTIONS**

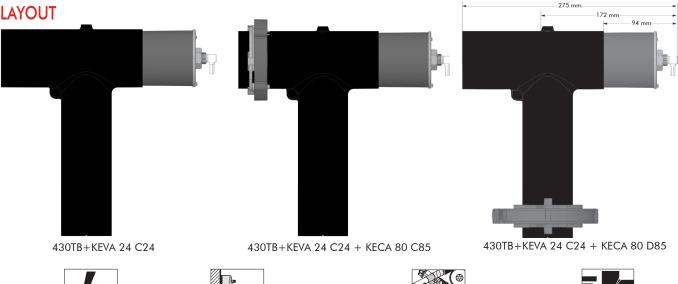
To order the right connector or sensor for your application, refer to the specific catalog pages.

#### SENSOR ASSEMBLY

Current sensor KECA 80 C85 shall be installed on shielded head of cable connector using clamping system. Current sensor KECA 80 D85 shall be installed on shielded cable using a clamping system which allows assembly on different diameters of MV cable. Voltage sensors KEVA C are assembled as would an insulating plugs in cable connectors.

Characteristic	Voltage	Current sensor		
Characteristic	sensor	Split core	Closed core	
Model	KEVA 24 Cxx	KECA 80 D85	KECA 80 C85	
Rated primary voltage/current	up to 22/√3 kV	80	DA	
Rated frequency	50/60Hz			
Accuracy class	0,5/3P	0,5P/5P630		
Rated burden	2M Ω/ 50pF or 200k Ω/ 350pF	2M Ω/ 50pF		
Rated transformation ratio	1:10000 V/V or 3.25 V/√3 kV	80A/150mV @50Hz 80A/180mV @60Hz		
Inner diameter	-	85 mm		
Secondary cable length	5 m			
Plug type	RJ45 or open 2-pins	RJ45		

#### LAYOUT





Rated voltage 12/20 (24) kV



(630A)



For other cables length and custom applications. Please contact our representative.



Components can be ordered individually.

## NOTES

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## NOTES

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