



## COMPARATIVE TABLE – ENERGY METERS / ACTUATORS

- ◆ The importance of Smart Metering in Home and Building Automation is growing bigger everyday. Not only is it a very useful feature for any home / building owner, but it has also become a compulsory element in order to comply with more and more legal regulations and directives all around the world.
- ◆ There are quite a few hardware / software solutions for the control and monitoring of Smart Metering in a KNX System, but first of all you need to obtain all the consumption data and have it sent to the Bus.
- ◆ Choosing the right counter is not always easy because there are numerous factors to take into account (Ex.: current, phases, tariffs, type of energy, etc.). With this Comparative Table of Energy Meters for KNX we are hoping to make this task much easier.



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(REQ. KNX INTERFACE)

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KNX ACTUATORS

INTERFACES FOR METERS

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## KNX ENERGY METERS / SINGLE-PHASE / DIRECT CONNECTION

MANUFACTURER	LINGG & JANKE		
IMAGE			
WEB CODE	9530		
MANUF REFERENCE	87722		
DESCRIPTION	DIRECT CONNECTION- SINGLE-PHASE AC 2 QUADRANT MULTI-TARIFF- ACTIVE ENERGY COUNTER		
DES. RANGE	FACILITYWEB		
VOLTAGE V AC	1 X 230		
CURRENT A AC	85		
DIN U	FLUSH MOUNTED		
OTHER FEATURES			
PHASES	1		
TARIFFS	8		
PRECISION CLASS	C		
QUADRANT (SUPPLY AND PURCHASE)	2		
MID (MEASURING INSTRUMENT DIRECTIVE)	YES		
BUS CONNECTION	KNX		
ACTIVE ENERGIE	YES		
REACTIVE ENERGIE	NO		
DIRECT CONNECTION	X		
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM	FIXED	BY ORDER
LIST PRICE	245,00 €		

## KNX ENERGY METERS / THREE-PHASE / DIRECT CONNECTION

MANUFACTURER	HAGER	LINGG & JANKE
IMAGE		
WEB CODE	9891	9531
MANUF REFERENCE	TE360	87731
DESCRIPTION	DIRECT CONNECTION, THREE-PHASE ACTIVE ENERGY COUNTER WITH REACTIVE ENERGY MEASUREMENT +/- 15%	DIRECT CONNECTION, THREE-PHASE MULTI-TARIFF- ACTIVE ENERGY COUNTER
DES. RANGE	TEBIS KNX	FACILITYWEB
VOLTAGE V AC	3 x 230/400VAC	3x230/400V
CURRENT A AC	100	85
DIN U	7	FLUSH MOUNTED
OTHER FEATURES		
PHASES	3	3
TARIFFS	2	2
PRECISION CLASS	ACTIVE = B, 1% BLIND = +/- 15%	2
QUADRANT (SUPPLY AND PURCHASE)	1	1
MID (MEASURING INSTRUMENT DIRECTIVE)	NO	YES
BUS CONNECTION	KNX	KNX
ACTIVE ENERGIE	YES	YES
REACTIVE ENERGIE	+/- 15%	NO
DIRECT CONNECTION	YES	YES
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM	APPLIC. PROGRAM
	FIXED	FIXED
	BY ORDER	BY ORDER
LIST PRICE	387,50 €	275,00 €

## KNX ENERGY METERS / THREE-PHASE / DIRECT CONNECTION

MANUFACTURER	LINGG & JANKE	SIEMENS
IMAGE		
WEB CODE	9532	4124
MANUF REFERENCE	87732	7KT1 162
DESCRIPTION	DIRECT CONNECTION, THREE-PHASE 2 QUADRANT MULTI-TARIFF- ACTIVE ENERGY COUNTER	DIRECT CONNECTION, THREE-PHASE MULTI-TARIFF- 2 TARIFF ACTIVE ENERGY COUNTER N162
DES. RANGE	FACILITYWEB	GAMMA GEBÄUDESYSTEMTECHNIK
VOLTAGE V AC	3 x 230/400V	3x230/400
CURRENT A AC	85	10(63)
DIN U	FLUSH MOUNTED	6
OTHER FEATURES		
PHASES	3	3
TARIFFS	8	2
PRECISION CLASS	C	2
QUADRANT (SUPPLY AND PURCHASE)	2	1
MID (MEASURING INSTRUMENT DIRECTIVE)	YES	NO
BUS CONNECTION	KNX	KNX
ACTIVE ENERGIE	YES	YES
REACTIVE ENERGIE	NO	IR - NOT KNX
DIRECT CONNECTION	YES	YES
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM   FIXED   BY ORDER	APPLIC. PROGRAM   FIXED   BY ORDER
LIST PRICE	275,00 €	781,55 €

## KNX ENERGY METERS / THREE-PHASE / DIRECT CONNECTION

MANUFACTURER	LINGG & JANKE		
IMAGE			
WEB CODE	9533		
MANUF REFERENCE	87744		
DESCRIPTION	DIRECT CONNECTION- THREE-PHASE 4 QUADRANT ACTIVE- AND REACTIVE ENERGYZÄHLER		
DES. RANGE	FACILITYWEB		
VOLTAGE V AC	3 x 230/400V		
CURRENT A AC	85		
DIN U	NO		
OTHER FEATURES			
PHASES	3		
TARIFFS	8		
PRECISION CLASS	C		
QUADRANT (SUPPLY AND PURCHASE)	4		
MID (MEASURING INSTRUMENT DIRECTIVE)	YES		
BUS CONNECTION	KNX		
ACTIVE ENERGIE	YES		
REACTIVE ENERGIE	YES		
DIRECT CONNECTION	YES		
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM	FIXED	BY ORDER
LIST PRICE	340,00 €		

**KNX ENERGY METERS / THREE-PHASE / TRANSFORMER RATED**

MANUFACTURER	HAGER	SIEMENS
IMAGE		
WEB CODE	9892	4125
MANUF REFERENCE	TE370	7KT1 165
DESCRIPTION	ACTIVE ENERGY- THREE-PHASE TRANSFORMER RATED COUNTER WITH REACTIVE ENERGY MEASUREMENT +/- 15%	MULTI-TARIFF COUNTER - 2 TARIFF, ACTIVE ENERGY- THREE-PHASE TRANSFORMER RATED COUNTER N165
DES. RANGE	TEBIS KNX	GAMMA GEBÄUDESYSTEMTECHNIK
VOLTAGE V AC	3X230/400V AC	3X230/400
CURRENT A AC	0,01 UP 6 A	5(6)
DIN U	4	6
OTHER FEATURES		
PHASES	3	3
TARIFFS	2	2
PRECISION CLASS	ACTIVE = B, 1% BLIND = +/- 15%	2
QUADRANT (SUPPLY AND PURCHASE)	1	1
MID (MEASURING INSTRUMENT DIRECTIVE)	NO	NO
BUS CONNECTION	KNX	KNX
ACTIVE ENERGIE	YES	YES
REACTIVE ENERGIE	+/- 15%	IR - NOT KNX
DIRECT CONNECTION	NO	NO
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM YES	APPLIC. PROGRAM YES
	FIXED	FIXED
	BY ORDER	BY ORDER
LIST PRICE	350,70 €	781,55 €

## KNX ENERGY METERS / THREE-PHASE / TRANSFORMER RATED

MANUFACTURER	LINGG & JANKE		LINGG & JANKE			
IMAGE						
WEB CODE	9889		9890			
MANUF REFERENCE	87750		87751			
DESCRIPTION	ACTIVE AND REACTIVE ENERGY THREE-PHASE 4 QUADRANT TRANSFORMER RATED COUNTER 5 A/5 A		ACTIVE AND REACTIVE ENERGY THREE-PHASE 4 QUADRANT TRANSFORMER RATED COUNTER 5 A			
DES. RANGE	FACILITYWEB		FACILITYWEB			
VOLTAGE V AC	NO		NO			
CURRENT A AC	5		5			
DIN U	NO		NO			
OTHER FEATURES						
PHASES	3		3			
TARIFFS	8		8			
PRECISION CLASS	C		C			
QUADRANT (SUPPLY AND PURCHASE)	4		4			
MID (MEASURING INSTRUMENT DIRECTIVE)	YES		YES			
BUS CONNECTION	KNX		KNX			
ACTIVE ENERGIE	YES		YES			
REACTIVE ENERGIE	YES		YES			
DIRECT CONNECTION	NO		NO			
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM	FIXED YES	BY ORDER	APPLIC. PROGRAM	FIXED	BY ORDER YES
LIST PRICE	555,00 €		590,00 €			

**CONVENTIONAL METERS (REQ. KNX INTERFACE) / SINGLE-PHASE / DIRECT CONNECTION**

MANUFACTURER	ABB	ABB				
IMAGE						
WEB CODE	9900	9907				
MANUF REFERENCE	DBB21000	FBB 11200				
DESCRIPTION	DIRECT CONNECTION - SINGLE - PHASE AC ACTIVE ENERGY COUNTER	DIRECT CONNECTION - SINGLE - PHASE AC SINGLE-TARIFF				
DES. RANGE	DELTAPLUS DIREKTMESSENDE ZÄHLER	DELTASINGLE				
VOLTAGE V AC	1x57 ... 288	230				
CURRENT A AC	5(80)	5(80)				
DIN U	7	4				
OTHER FEATURES		WITH PULSE OUTPUT				
PHASES	1	1				
TARIFFS	NO	1				
PRECISION CLASS	2	1				
QUADRANT (SUPPLY AND PURCHASE)	1	1				
MID (MEASURING INSTRUMENT DIRECTIVE)	YES	YES				
BUS CONNECTION	+ ZS/S 1.1	+ ZS/S 1.1				
ACTIVE ENERGIE	YES	YES				
REACTIVE ENERGIE	NO	NO				
DIRECT CONNECTION	YES	YES				
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM	FIXED	BY ORDER	APPLIC. PROGRAM	FIXED	BY ORDER
LIST PRICE	264,00 €		180,00 €			

## CONVENTIONAL METERS (REQ. KNX INTERFACE) / SINGLE-PHASE / DIRECT CONNECTION

MANUFACTURER	ABB	ABB
IMAGE		
WEB CODE	9908	9909
MANUF REFERENCE	FBB 11205	FBB 11206
DESCRIPTION	DIRECT CONNECTION - SINGLE - PHASE AC MULTI-TARIFF COUNTER - 2 TARIFF	DIRECT CONNECTION - SINGLE - PHASE AC MULTI-TARIFF COUNTER - 4 TARIFF
DES. RANGE	DELTASINGLE	DELTASINGLE
VOLTAGE V AC	230	230
CURRENT A AC	5(80)	5(80)
DIN U	4	4
OTHER FEATURES	WITH INTEGR. WATCH & PULSE OUTPUT	WITH INTEGR. WATCH & PULSE OUTPUT
PHASES	1	1
TARIFFS	2	3
PRECISION CLASS	1	1
QUADRANT (SUPPLY AND PURCHASE)	1	1
MID (MEASURING INSTRUMENT DIRECTIVE)	YES	YES
BUS CONNECTION	+ ZS/S 1.1	+ ZS/S 1.1
ACTIVE ENERGIE	YES	YES
REACTIVE ENERGIE	NO	NO
DIRECT CONNECTION	YES	YES
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM	APPLIC. PROGRAM
	FIXED	FIXED
	BY ORDER	BY ORDER
LIST PRICE	190,00 €	226,00 €

## CONVENTIONAL METERS (REQ. KNX INTERFACE) / SINGLE-PHASE / DIRECT CONNECTION

MANUFACTURER	ABB	ABB				
IMAGE						
WEB CODE	9910	9911				
MANUF REFERENCE	FBU 11200	FBU 11205				
DESCRIPTION	DIRECT CONNECTION - SINGLE - PHASE AC SINGLE-TARIFF	DIRECT CONNECTION - SINGLE - PHASE AC MULTI-TARIFF COUNTER - 2 TARIFF				
DES. RANGE	DELTASINGLE	DELTASINGLE				
VOLTAGE V AC	230	230				
CURRENT A AC	5(80)	5(80)				
DIN U	4	4				
OTHER FEATURES		WITH INTEGR. WATCH				
PHASES	1	1				
TARIFFS	1	2				
PRECISION CLASS	1	1				
QUADRANT (SUPPLY AND PURCHASE)	1	1				
MID (MEASURING INSTRUMENT DIRECTIVE)	YES	YES				
BUS CONNECTION	+ ZS/S 1.1	+ ZS/S 1.1				
ACTIVE ENERGIE	YES	YES				
REACTIVE ENERGIE	NO	NO				
DIRECT CONNECTION	YES	YES				
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM	FIXED	BY ORDER	APPLIC. PROGRAM	FIXED	BY ORDER
LIST PRICE	178,00 €		186,00 €			

## CONVENTIONAL METERS (REQ. KNX INTERFACE) / SINGLE-PHASE / DIRECT CONNECTION

MANUFACTURER	ABB	ABB
IMAGE		
WEB CODE	9912	9913
MANUF REFERENCE	FBU 11206	OD 1065
DESCRIPTION	DIRECT CONNECTION - SINGLE - PHASE	DIRECT CONNECTION - SINGLE - PHASE AC ACTIVE ENERGY COUNTER
DES. RANGE	DELTASINGLE	ODINSINGLE (i)
VOLTAGE V AC	230	230
CURRENT A AC	5(80)	65
DIN U	4	2
OTHER FEATURES	WITH INTEGR. WATCH	
PHASES	1	1
TARIFFS	4	NO
PRECISION CLASS	1	1
QUADRANT (SUPPLY AND PURCHASE)	1	1
MID (MEASURING INSTRUMENT DIRECTIVE)	YES	YES
BUS CONNECTION	+ ZS/S 1.1	+ ZS/S 1.1
ACTIVE ENERGIE	YES	YES
REACTIVE ENERGIE	NO	NO
DIRECT CONNECTION	YES	YES
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM  FIXED  BY ORDER	APPLIC. PROGRAM  FIXED  BY ORDER
LIST PRICE	224,00 €	151,00 €

(i) DOES NOT COMPLY DIN TYPE

**CONVENTIONAL METERS (REQ. KNX INTERFACE) / SINGLE-PHASE / TRANSFORMER RATED**

MANUFACTURER	ABB		
IMAGE			
WEB CODE	9901		
MANUF REFERENCE	DAB11000		
DESCRIPTION	ACTIVE ENERGY - SINGLE - PHASE AC TRANSFORMER RATED COUNTER		
DES. RANGE	DELTAPLUS STANDARD-ZÄHLER		
VOLTAGE V AC	1x57 ... 288		
CURRENT A AC	1 (6)		
DIN U	7		
OTHER FEATURES			
PHASES	1		
TARIFFS	NO		
PRECISION CLASS	1		
QUADRANT (SUPPLY AND PURCHASE)	1		
MID (MEASURING INSTRUMENT DIRECTIVE)	YES		
BUS CONNECTION	+ ZS/S 1.1		
ACTIVE ENERGIE	YES		
REACTIVE ENERGIE	NO		
DIRECT CONNECTION	NO		
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM YES	FIXED	BY ORDER
LIST PRICE	264,00 €		

## CONVENTIONAL METERS (REQ. KNX INTERFACE) / THREE-PHASE / DIRECT CONNECTION

MANUFACTURER	ABB	ABB
IMAGE		
WEB CODE	9894	9895
MANUF REFERENCE	DBB12000	DBB22000
DESCRIPTION	DIRECT CONNECTION, THREE - PHASE ACTIVE ENERGY COUNTER	DIRECT CONNECTION, THREE - PHASE ACTIVE ENERGY COUNTER
DES. RANGE	DELTAPLUS DIREKTMESSENDE ZÄHLER	DELTAPLUS DIREKTMESSENDE ZÄHLER
VOLTAGE V AC	3x100 ... 500	3x100 ... 500
CURRENT A AC	5(80)	5(80)
DIN U	7	7
OTHER FEATURES		
PHASES	3	3
TARIFFS	NO	NO
PRECISION CLASS	1	2
QUADRANT (SUPPLY AND PURCHASE)	1	1
MID (MEASURING INSTRUMENT DIRECTIVE)	X	X
BUS CONNECTION	+ ZS/S 1.1	+ ZS/S 1.1
ACTIVE ENERGIE	YES	YES
REACTIVE ENERGIE	NO	NO
DIRECT CONNECTION	YES	YES
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM   FIXED   BY ORDER	APPLIC. PROGRAM   FIXED   BY ORDER
LIST PRICE	467,00 €	400,00 €

**CONVENTIONAL METERS (REQ. KNX INTERFACE) / THREE-PHASE / DIRECT CONNECTION**

<b>MANUFACTURER</b>	ABB	ABB
<b>IMAGE</b>		
<b>WEB CODE</b>	9896	9897
<b>MANUF REFERENCE</b>	DBB13000	DBB23000
<b>DESCRIPTION</b>	DIRECT CONNECTION, THREE - PHASE ACTIVE ENERGY COUNTER	DIRECT CONNECTION, THREE - PHASE ACTIVE ENERGY COUNTER
<b>DES. RANGE</b>	DELТАPLUS DIREKTMESSENDE ZÄHLER	DELТАPLUS DIREKTMESSENDE ZÄHLER
<b>VOLTAGE V AC</b>	3 x 57/100 UP TO 3 x 288/500	3 x 57/100 UP TO 3 x 288/500
<b>CURRENT A AC</b>	5(80)	5(80)
<b>DIN U</b>	7	7
<b>OTHER FEATURES</b>		
<b>PHASES</b>	3	3
<b>TARIFFS</b>	NO	NO
<b>PRECISION CLASS</b>	1	2
<b>QUADRANT (SUPPLY AND PURCHASE)</b>	1	1
<b>MID (MEASURING INSTRUMENT DIRECTIVE)</b>	YES	YES
<b>BUS CONNECTION</b>	+ ZS/S 1.1	+ ZS/S 1.1
<b>ACTIVE ENERGIE</b>	YES	YES
<b>REACTIVE ENERGIE</b>	NO	NO
<b>DIRECT CONNECTION</b>	YES	YES
<b>CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:</b>	APPLIC. PROGRAM   FIXED   BY ORDER	APPLIC. PROGRAM   FIXED   BY ORDER
<b>LIST PRICE</b>	426,00 €	362,00 €

**CONVENTIONAL METERS (REQ. KNX INTERFACE) / THREE-PHASE / DIRECT CONNECTION**

<b>MANUFACTURER</b>	ABB	ABB
<b>IMAGE</b>		
<b>WEB CODE</b>	9898	9899
<b>MANUF REFERENCE</b>	DBB23002	DBB23004
<b>DESCRIPTION</b>	DIRECT CONNECTION, THREE - PHASE MULTI-TARIFF COUNTER - 4 TARIFF, (CONTROL OF THE 4 TARIFFS VIA 230 V INPUT)	DIRECT CONNECTION, THREE - PHASE MULTI-TARIFF COUNTER - 4 TARIFF (CONTROL OF THE 4 TARIFFS VIA COMMUNICATION)
<b>DES. RANGE</b>	DELТАPLUS DIREKTMESSENDE ZÄHLER	DELТАPLUS DIREKTMESSENDE ZÄHLER
<b>VOLTAGE V AC</b>	3 x 57/100 UP TO 3 x 288/500	3 x 57/100 UP TO 3 x 288/500
<b>CURRENT A AC</b>	5(80)	5(80)
<b>DIN U</b>	7	7
<b>OTHER FEATURES</b>		
<b>PHASES</b>	3	3
<b>TARIFFS</b>	4	4
<b>PRECISION CLASS</b>	2	2
<b>QUADRANT (SUPPLY AND PURCHASE)</b>	1	1
<b>MID (MEASURING INSTRUMENT DIRECTIVE)</b>	YES	YES
<b>BUS CONNECTION</b>	+ ZS/S 1.1	+ ZS/S 1.1
<b>ACTIVE ENERGIE</b>	YES	YES
<b>REACTIVE ENERGIE</b>	NO	NO
<b>DIRECT CONNECTION</b>	YES	YES
<b>CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:</b>	APPLIC. PROGRAM     	APPLIC. PROGRAM     
	FIXED	BY ORDER
<b>LIST PRICE</b>	469,00 €	469,00 €

**CONVENTIONAL METERS (REQ. KNX INTERFACE) / THREE-PHASE / DIRECT CONNECTION**

MANUFACTURER	ABB	ABB
IMAGE		
WEB CODE	9915	9914
MANUF REFERENCE	OD 4165	OD 1365
DESCRIPTION	DIRECT CONNECTION, THREE - PHASE ACTIVE ENERGY COUNTER 4-LEITER	DIRECT CONNECTION - SINGLE - PHASE AC ACTIVE ENERGY COUNTER
DES. RANGE	ODIN-METER(:)	ODINSINGLE(:)
VOLTAGE V AC	3 x 230/400	230
CURRENT A AC	65	65
DIN U	6	2
OTHER FEATURES		WITH RESETABLE INTERMEDIATE COUNTER & PULSE OUTPUT
PHASES	3	1
TARIFFS	NO	NO
PRECISION CLASS	2	1
QUADRANT (SUPPLY AND PURCHASE)	1	1
MID (MEASURING INSTRUMENT DIRECTIVE)	YES	YES
BUS CONNECTION	+ ZS/S 1.1	+ ZS/S 1.1
ACTIVE ENERGIE	YES	YES
REACTIVE ENERGIE	NO	NO
DIRECT CONNECTION	YES	YES
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM   FIXED   BY ORDER	APPLIC. PROGRAM   FIXED   BY ORDER
LIST PRICE	247,00 €	173,00 €

(: ) DOES NOT COMPLIE DIN TYPE

**CONVENTIONAL METERS (REQ. KNX INTERFACE) / THREE-PHASE / DIRECT CONNECTION**

MANUFACTURER	ABB		
IMAGE			
WEB CODE	9902		
MANUF REFERENCE	DDB13000		
DESCRIPTION	DIRECT CONNECTION - THREE - PHASE ACTIVE - AND REACTIVE ENERGYZÄHLER		
DES. RANGE	DELTAPLUS DIREKTMESSENDE ZÄHLER		
VOLTAGE V AC	3 x 57/100 UP TO 3 x 288/500		
CURRENT A AC	5 (80)		
DIN U	7		
OTHER FEATURES			
PHASES	3		
TARIFFS	NO		
PRECISION CLASS	1		
QUADRANT (SUPPLY AND PURCHASE)	1		
MID (MEASURING INSTRUMENT DIRECTIVE)	YES		
BUS CONNECTION	+ ZS/S 1.1		
ACTIVE ENERGIE	YES		
REACTIVE ENERGIE	YES		
DIRECT CONNECTION	YES		
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM	FIXED	BY ORDER
LIST PRICE	639,00 €		

**CONVENTIONAL METERS (REQ. KNX INTERFACE) / THREE-PHASE / TRANSFORMER RATED**

MANUFACTURER	ABB	ABB
IMAGE		
WEB CODE	9903	2120
MANUF REFERENCE	DAB12000	DAB13000
DESCRIPTION	ACTIVE ENERGY- THREE-PHASE TRANSFORMER RATED COUNTER	ACTIVE ENERGY- THREE-PHASE TRANSFORMER RATED COUNTER
DES. RANGE	DELТАPLUS STANDARD-ZÄHLER	DELТАPLUS STANDARD-ZÄHLER
VOLTAGE V AC	3 x 100 ... 500	3 x 57/100 UP TO 3 x 288/500
CURRENT A AC	1(6)	1(6)
DIN U	7	7
OTHER FEATURES		
PHASES	3	3
TARIFFS	NO	NO
PRECISION CLASS	1	1
QUADRANT (SUPPLY AND PURCHASE)	1	1
MID (MEASURING INSTRUMENT DIRECTIVE)	YES	YES
BUS CONNECTION	+ ZS/S 1.1	+ ZS/S 1.1
ACTIVE ENERGIE	YES	YES
REACTIVE ENERGIE	NO	NO
DIRECT CONNECTION	YES	YES
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM YES	APPLIC. PROGRAM YES
LIST PRICE	384,00 €	342,00 €

**CONVENTIONAL METERS (REQ. KNX INTERFACE) / THREE-PHASE / TRANSFORMER RATED**

<b>MANUFACTURER</b>	ABB	ABB
<b>IMAGE</b>		
<b>WEB CODE</b>	9904	9905
<b>MANUF REFERENCE</b>	DAB13002	DAB13004
<b>DESCRIPTION</b>	MULTI-TARIFF COUNTER - 4 TARIFF, ACTIVE ENERGY- THREE-PHASE TRANSFORMER RATED COUNTER (CONTROL OF THE 4 TARIFFS VIA 230 V INPUT)	MULTI-TARIFF COUNTER - 4 TARIFF, ACTIVE ENERGY- THREE-PHASE TRANSFORMER RATED COUNTER (CONTROL OF THE 4 TARIFFS VIA COMUNICATION)
<b>DES. RANGE</b>	DELТАPLUS STANDARD-ZÄHLER	DELТАPLUS STANDARD-ZÄHLER
<b>VOLTAGE V AC</b>	3 x 57/100 UP TO 3 x 288/500	3 x 57/100 UP TO 3 x 288/500
<b>CURRENT A AC</b>	1(6)	1(6)
<b>DIN U</b>	7	7
<b>OTHER FEATURES</b>		
<b>PHASES</b>	3	3
<b>TARIFFS</b>	4	4
<b>PRECISION CLASS</b>	1	1
<b>QUADRANT (SUPPLY AND PURCHASE)</b>	1	1
<b>MID (MEASURING INSTRUMENT DIRECTIVE)</b>	YES	YES
<b>BUS CONNECTION</b>	+ ZS/S 1.1	+ ZS/S 1.1
<b>ACTIVE ENERGIE</b>	YES	YES
<b>REACTIVE ENERGIE</b>	NO	NO
<b>DIRECT CONNECTION</b>	NO	NO
<b>CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:</b>	APPLIC. PROGRAM YES	APPLIC. PROGRAM YES
	FIXED	FIXED
	BY ORDER	BY ORDER
<b>LIST PRICE</b>	457,00 €	457,00 €

**CONVENTIONAL METERS (REQ. KNX INTERFACE) / THREE-PHASE / TRANSFORMER RATED**

MANUFACTURER	ABB	ABB
IMAGE		
WEB CODE	9916	9906
MANUF REFERENCE	OD 4110	DCB12000
DESCRIPTION	ACTIVE ENERGY- THREE-PHASE TRANSFORMER RATED COUNTER 4-LEITER	ACTIVE AND REACTIVE ENERGY THREE-PHASE TRANSFORMER RATED COUNTER
DES. RANGE	ODIN-METER(1)	DELТАPLUS STANDARD-ZÄHLER
VOLTAGE V AC	3 x 230/400	3 x 100 ... 500
CURRENT A AC	5	1(6)
DIN U	6	7
OTHER FEATURES		
PHASES	3	3
TARIFFS	NO	NO
PRECISION CLASS	2	1
QUADRANT (SUPPLY AND PURCHASE)	1	1
MID (MEASURING INSTRUMENT DIRECTIVE)	YES	YES
BUS CONNECTION	+ ZS/S 1.1	+ ZS/S 1.1
ACTIVE ENERGIE	YES	YES
REACTIVE ENERGIE	NO	YES
DIRECT CONNECTION	NO	NO
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM YES	APPLIC. PROGRAM YES
LIST PRICE	235,00 €	684,00 €

(1) DOES NOT COMPLY DIN TYPE

## CONVENTIONAL METERS (REQ. KNX INTERFACE) / THREE-PHASE / TRANSFORMER RATED

MANUFACTURER	ABB		
IMAGE			
WEB CODE	2121		
MANUF REFERENCE	DCB13000		
DESCRIPTION	ACTIVE AND REACTIVE ENERGY THREE-PHASE TRANSFORMER RATED COUNTER		
DES. RANGE	DELTAPLUS STANDARD-ZÄHLER		
VOLTAGE V AC	3 x 57/100 UP TO 3 x 288/500		
CURRENT A AC	1(6)		
DIN U	7		
OTHER FEATURES			
PHASES	3		
TARIFFS	NO		
PRECISION CLASS	1		
QUADRANT (SUPPLY AND PURCHASE)	1		
MID (MEASURING INSTRUMENT DIRECTIVE)	YES		
BUS CONNECTION	+ ZS/S 1.1		
ACTIVE ENERGIE	YES		
REACTIVE ENERGIE	YES		
DIRECT CONNECTION	NO		
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM YES	FIXED	BY ORDER
LIST PRICE	613,00 €		

**KNX DEVICES / KNX ACTUATORS**

MANUFACTURER	ABB		
IMAGE			
WEB CODE	9893		
MANUF REFERENCE	SE/S 3.16.1		
DESCRIPTION	ENERGY ACTUATOR		
DES. RANGE	ABB I-BUS KNX		
VOLTAGE V AC	95...265		
CURRENT A AC	0,025...20		
DIN U	4		
OTHER FEATURES	3 SCHALTAUSGÄNGE 20A C LAST 3 ZÄHLER + GESAMT		
PHASES	3 X 1		
TARIFFS	NO		
PRECISION CLASS	"(500mA... 5A) ± 3 % (5...20 A) ± 2 % "		
QUADRANT (SUPPLY AND PURCHASE)	1		
MID (MEASURING INSTRUMENT DIRECTIVE)	NO		
BUS CONNECTION	KNX		
ACTIVE ENERGIE	YES		
REACTIVE ENERGIE	YES		
DIRECT CONNECTION	YES		
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM	FIXED	BY ORDER
LIST PRICE	395,00 €		

## KNX DEVICES / INTERFACES FOR METERS

MANUFACTURER	ABB		
IMAGE			
WEB CODE	6166		
MANUF. REFERENCE	ZS/S 1.1		
DESCRIPTION	KNX METER INTERFACE MODULE, REG FOR ABB ENERGY METERS TYPES DELTAPLUS, DELTASINGLE, ODIN OR ODINSINGLE		
DES. RANGE	ABB I-BUS KNX		
VOLTAGE V AC	KNX		
CURRENT A AC	KNX		
DIN U	2		
OTHER FEATURES	INFRAROTSCHNITTSTELLE		
PHASES	NO		
TARIFFS	NO		
PRECISION CLASS	NO		
QUADRANT (SUPPLY AND PURCHASE)	NO		
MID (MEASURING INSTRUMENT DIRECTIVE)	NO		
BUS CONNECTION	KNX		
ACTIVE ENERGIE	NO		
REACTIVE ENERGIE	NO		
DIRECT CONNECTION	NO		
CURRENT TRANSFORMER CONNECTION - CURRENT RATIO DETERMINED VIA:	APPLIC. PROGRAM	FIXED	BY ORDER
LIST PRICE	180,00 €		