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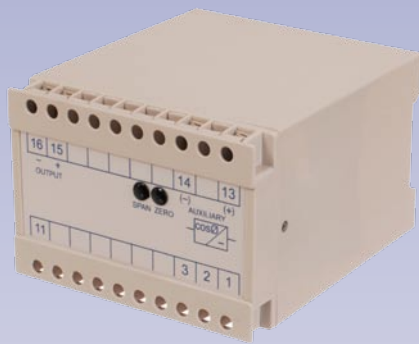
Power Factor Transducers

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Power Factor ($\cos\theta$) Transducers

Power factor transducers measure the cosine of the phase angle between the current and the voltage. The transducer output is either a DC mA or DC voltage which is directly proportional to the cosine of the phase angle between the input current and voltage.

These can be used for monitoring and optimising power factor correction systems. All power factor transducers are available self powered or powered from a large choice of AC or DC auxiliary power options.

The 4kV isolated output signals can then be fed to analogue meters, digital meters, PLC's or building management systems.

Models Available

ECOS12B Single Phase

ECOS33B 3 Phase Balanced

Product Features

- Isolated DC mA or DC voltage output
- Accuracy class 0.5
- Adjustable 'span' and 'zero'
- DIN rail mounting enclosure
- 4kV rms 50Hz 1 minute isolation between input / output / case / (auxiliary)
- Screw type terminals
- Fingerproof terminal cover included

For converting power factor to a proportional DC mA or DC voltage output

Specification

Reference Standard:

- IEC 688, BS 6253, VDE/VDI 2191

Accuracy:

- Class 0.5 ($\pm 0.5\%$ f.s. max. error down to 10% f.s.)

Input Voltage, U_n :

- 0-50V to 0-550V direct connected
- or VT operated

Input Current, I_n :

- 0-0.7A to 0-7.5A direct connected
- 0-1A or 0-5A CT operated

Overload:

- 1.2 x U_n , 2 x I_n continuous
- 1.5 x U_n , 30 x I_n for 1 second

Working Range:

- 20 - 120% U_n (auxiliary powered)
- 80 - 120% U_n (self powered)
- 5 - 120% I_n

Frequency:

- 50 or 60Hz

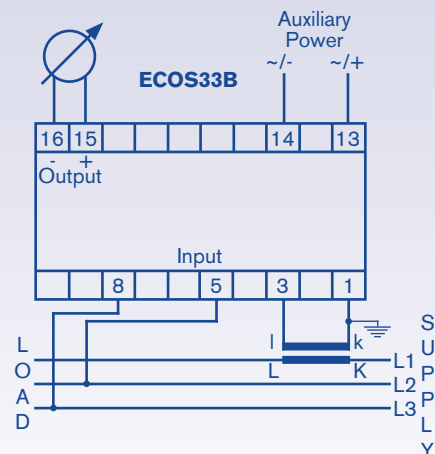
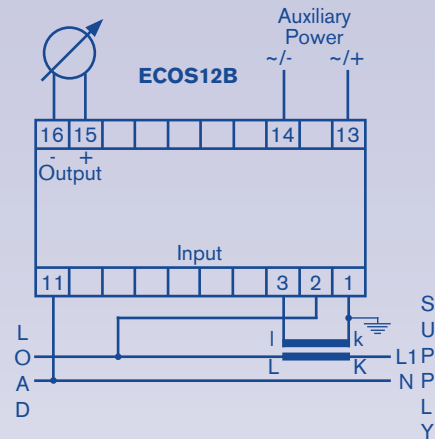
Burden:

- Current circuit < 0.3VA (aux. powered)
- Current circuit < 3VA (self powered)
- Voltage circuit < 0.2VA (aux. powered)
- Voltage circuit < 3VA (self powered)

Weight:

- ECOS12B, ECOS33B 700g

Connections



Ordering information

Model	Code	Description
	ECOS12B	Single Phase
	ECOS33B	3 Phase Balanced

Input Power Factor	Code	Description
	A0.5	cosØ: 0.5 - 1 - 0.5
	A1	cosØ: 0 - 1 - 0
	AX	cosØ: specify range

Input Voltage	Code	Description
	P1	110Vac
	P2	230Vac
	P3	415Vac
	PX	50 to 550Vac (specify)

Input Current	Code	Description
	C1	1 Amp
	C5	5 Amp
	CX	0.5 to 7.5 Amps direct (specify)

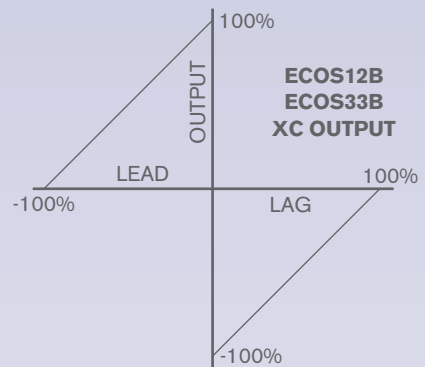
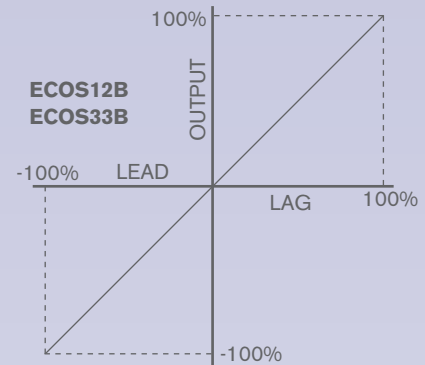
Auxiliary Power	Code	Description
	E0	Self Powered
	E1	110Vac (±20%)
	E2	230Vac (±20%)
	E3	415Vac (±20%)
	E4	63.5Vac (±20%)
	E5	24Vdc (±20%)
	E6	48Vdc (±20%)
	E7	110Vdc (±20%)

Output	Code	Description
	X1	±1mA
	X2.5	±2.5mA
	X5	±5mA
	X10	±10mA
	X20	±20mA
	XB	4-12-20mA
	XV	±Voltage (specify up to 15Vdc)
	XC	0 to +10/-10 to 0mA

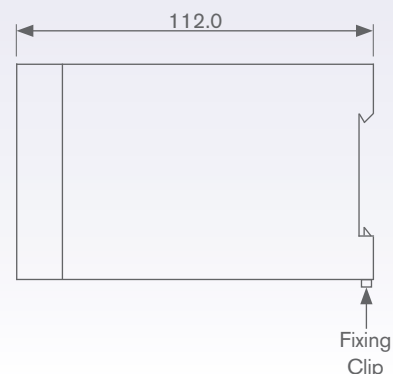
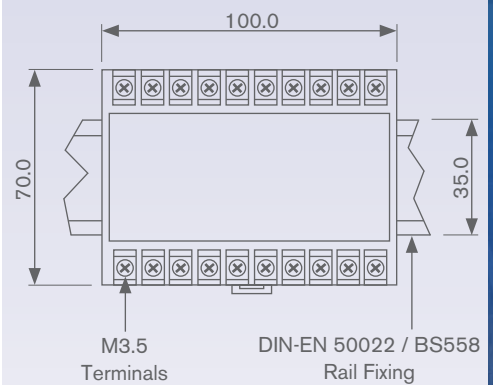
Input Frequency	Code	Description
	F50	50Hz
	F60	60Hz

Example ECOS33B - A1 - P1- C5 - E1 - XB - F50

Function Graph



Dimensions



All dimensions in mm



GENERATOR
NO. 3

100 200 300



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