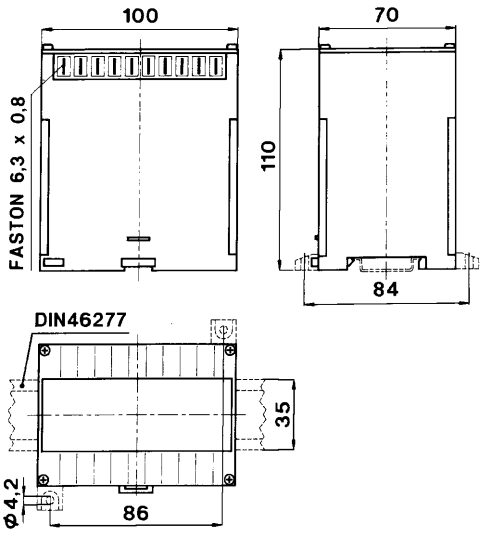
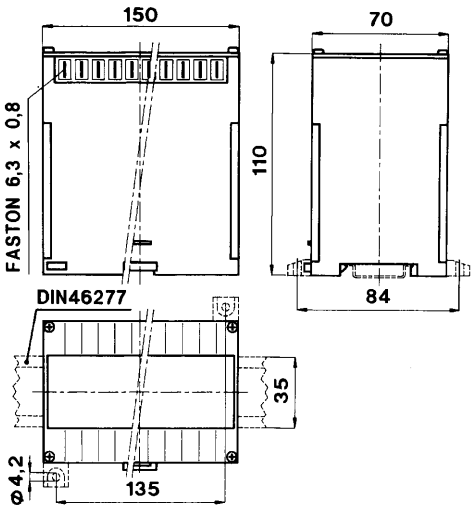
Transducer designed for Active Power and/or Reactive Power

MCOW.. - MCOR..



MCOWR..



Order Information

- Transducer Type
- Input Voltage or
  Input Voltage Transformer
- Input Current or
  Input Current Transformer
- Frequency
- Auxiliary Voltage (on demand)
- Secondary Current or Voltage
- Full scale value for 3 phase current
  $P=\sqrt{3} \times U \times I \times \cos\varphi$ (W) or
  $Q=\sqrt{3} \times U \times I \times \sin\varphi$ (var)

TECHNICAL DATA

accuracy (class)	1%
frequency	50, 60 or 400 Hz
self-consumption per current path	0,5VA
self-consumption per voltage path	1,5VA
continuous overload	2 In; 1,2 Un
short-term overload	20 In; 2 Un
ripple	<1%
response time	<200ms
storage temperature	-30…+70°C
operating temperature	-10…+50°C
test voltage	2kV-50Hz-60s
surge test	5kV; 1,2/50µs
input range	(20) 90…120%
galvanic insulation of input, output and auxiliary voltage	

primary voltage:	100V/√3; 110V/√3; 100V; 110V; 230V; 250V; 400V; 440V				
primary current:	1A; 2,5A; 5A				
output:	±1mA	±5mA	±20mA	4 - 20mA	±10V
burden:	15kΩ	3000Ω	750Ω	750Ω	>2000Ω

Power Grid / Measured Value(s)		**Order Code**
single phase A.C. current	W	MCOWS
3-phase and 3-wires balanced load	W	MCOWY
3-phase and 3-wires unbalanced load	W	MCOWD
3-phase and 4-wires balanced load	W	MCOWN
3-phase and 4-wires unbalanced load	W	MCOWT
single phase A.C. current	var	MCORS
3-phase and 3-wires balanced load	var	MCORY
3-phase and 3-wires unbalanced load	var	MCORD
3-phase and 4-wires balanced load	var	MCORN
3-phase and 4-wires unbalanced load	var	MCORT
3-phase and 3-wires balanced load	W + var	MCOWRY
3-phase and 3-wires unbalanced load	W + var	MCOWRD
3-phase and 4-wires unbalanced load	W + var	MCOWRT

These transducers are designed for measurements of active and/or reactive power in single phase or 3-phase grids. The input signal is converted into an impressed output signal (D.C. current or D.C. voltage), which is proportional to the electric power.
The multiplier is calculated by the product of the instantaneous current, voltage and $\cos\varphi$. Suitable full scale values are between 60% and 120% of the calculated apparent power.
Usually these transducers work self-supplied. The input range is between 90%-120% for voltage and 20%-120% for current.
If equipped with an additional auxiliary supply the input range extends to 20%-120% for both, voltage and current.

auxiliary voltage: 115V and 230V A.C. ±10% (3VA)
on demand: 24 - 400V A.C. (3VA); 24-48-110V D.C. -10 +20% (3W)
Transmission behavior: characteristic curve A, C, D or E

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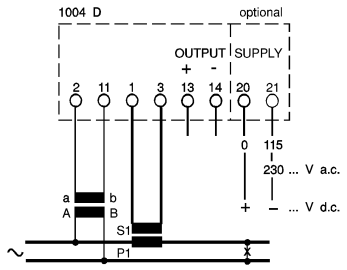
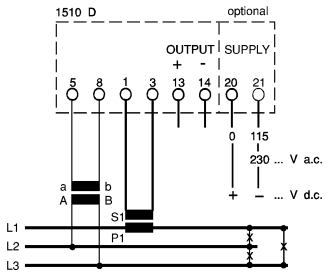
Wiring Diagrams
Transducer for Active or Reactive Power

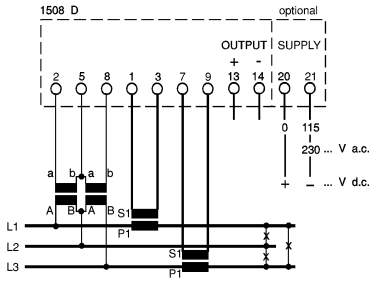
MCOWS + MCORS



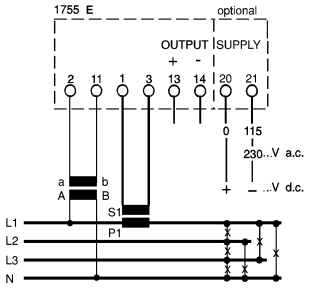
MCOWY + MCORY



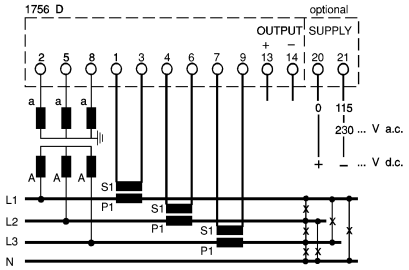
MCOWD + MCORD



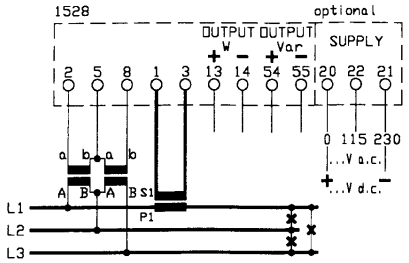
MCOWN + MCORN



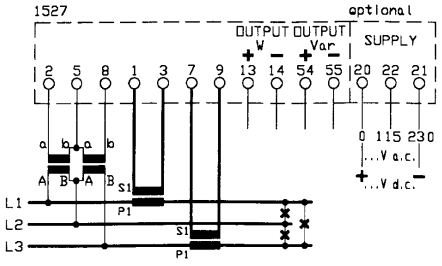
MCOWT + MCORT



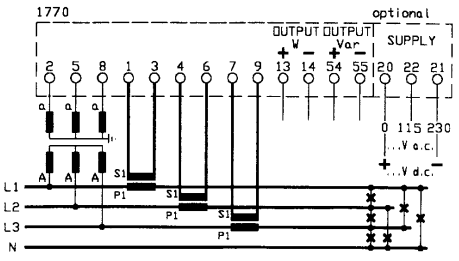
MCOWRY



MCOWRD



MCOWRT



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