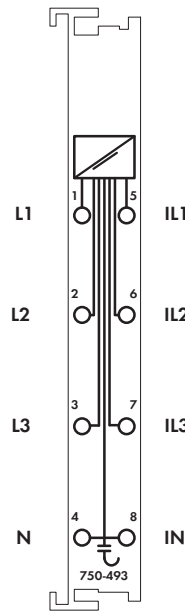
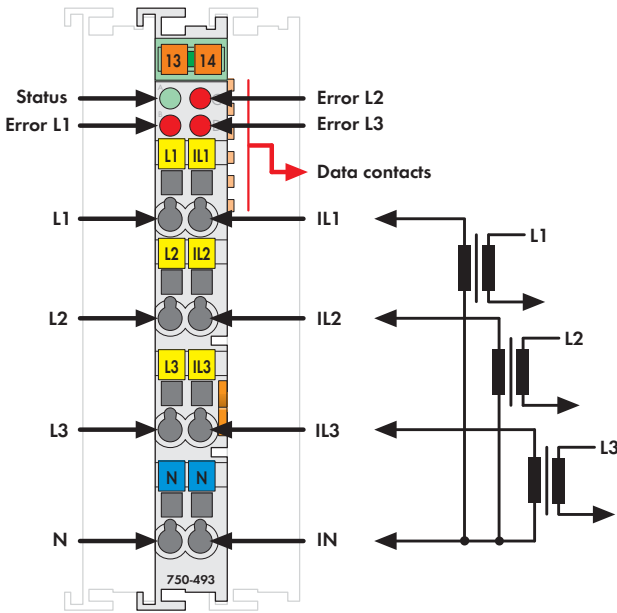


3-Phase Power Measurement Module



Delivered without miniature WSB markers


The 3-phase power measurement module measures the electrical data in a three-phase supply network.

The voltage is measured via network connection to L1, L2, L3 and N.

The current of the three phases is fed to IL1, IL2, IL3 and IN via current transformers.

The 3-phase power measurement module transmits the root mean square values into the process image without requiring high computing power from the controller. For each phase, the effective power (P) and the energy consumption (W) are calculated by the 3-phase power measurement module using the root mean square values for all measured voltages (V) and currents (I). For example, both the apparent power (S) and phase shift angle (ϕ) can be easily derived from these values.

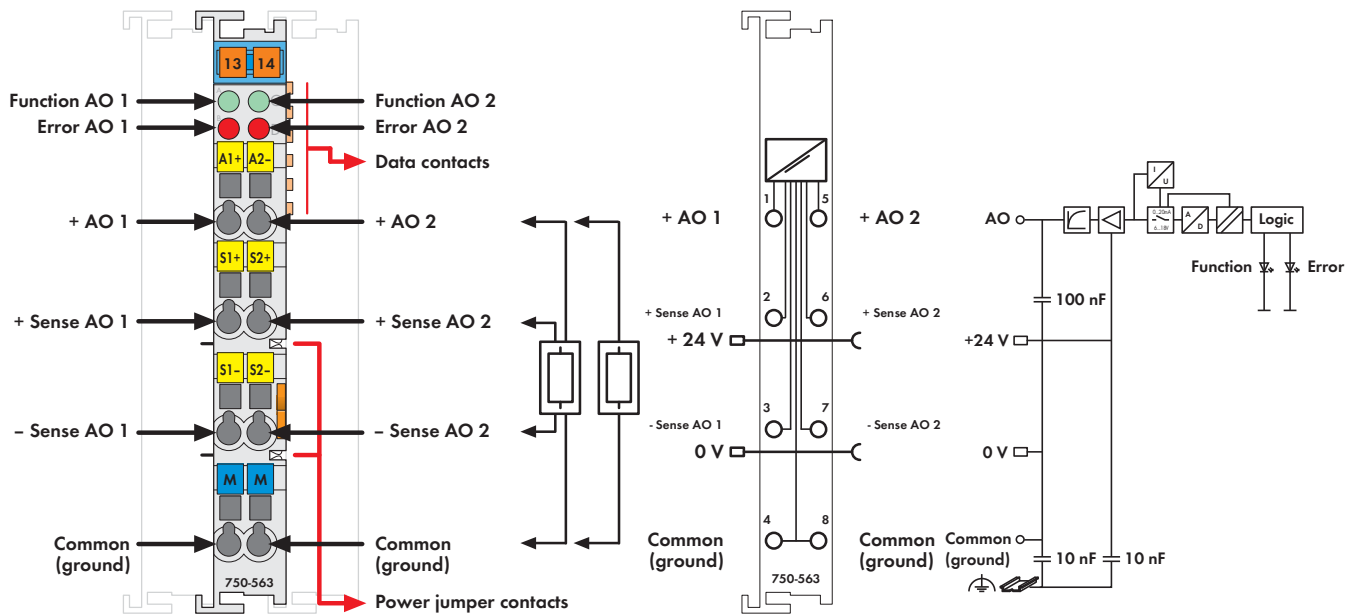
Therefore, the 3-phase power measurement module provides comprehensive network analysis via fieldbus. By means of values such as voltage, current, effective and apparent power consumption or load condition, the operator is able to optimally regulate the supply to a drive or machine and protect the installation from damage and failure.

Description	Item No.	Pack. Unit
3-Phase Power Measurement Module (1 A)	750-493	1
3-Phase Power Measurement Module (5 A)	750-493/000-001	1
Accessories		
Miniature WSB Quick marking system		
 plain	248-501	5
with marking	see pages 352 ... 353	
Approvals		
Also see "Approvals Overview" in Section 1		
Conformity marking	CE	
UL 508		

Technical Data	
Number of inputs	6 (3 voltage inputs, 3 current inputs)
Measuring voltage (max.)	500 VAC 3~
Input resistance voltage path (typ.)	500 kΩ
Measuring current (max.)	1 A (750-493) 5 A (750-493/000-001)
Input resistance current path (typ.)	33 mΩ (750-493) 6.8 mΩ (750-493/000-001)
Resolution	16 bits
Frequency range with activated DC filter	10 - 500Hz
Frequency range with deactivated DC	0 - 500Hz
Max. operating frequency	approx. 2 kHz
Signal form	any (in consideration of the frequency range and max. operating frequency)
Measuring error for current and voltage	0.5 % (of the upper range value)
Measuring procedure	True RMS with 64,000 samples/s
Measuring cycle time	configurable, preset at 50 ms per measured value
Measured values	Effective power, energy, power factor (cos φ)
Power supply	via system voltage internal bus (5 V)
Current consumption (internal)	115 mA
Isolation	1500 V system/supply
Bit width	2 x 48 bits data 2 x 24 bits control/status (optional)
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Stripped lengths	8 ... 9 mm / 0.33 in
Width	12 mm
Weight	48.5 g
EMC: CE - immunity to interference	acc. to EN 61000-6-2 (2005)
EMC: CE - emission of interference	acc. to EN 61000-6-3 (2007)


2-Channel Analog Output Module, 0/4 ... 20 mA / 6 ... 18 V DC

16 bits, configurable



Delivered without miniature WSB markers

The analog output module generates output currents ranging from 0/4 to 20mA or output voltages in the range from 6 to 18V for the field. Output ranges can be configured via WAGO-I/O-CHECK or GSD files. The module has two short circuit-proof output channels and enables direct connection of two 2-line actuators on the connections AO 1 and ground or AO2 and ground. Signals are output via AO 1 or AO 2. In addition, the sense lines from 4-line actuators can be connected to the connections Sense AO1 and +Sense AO1 or Sense AO2 and +SenseAO2. Both output channels have a common ground potential. The output signal is electrically isolated and transmitted with a resolution of 16 bits. Both the internal system and the field side supply power the module.

Description	Item No.	Pack. Unit
2 AO 0/4-20mA / 6-18V DC 16 Bit	750-563	1
Accessories		
Miniature WSB Quick marking system		
 plain	248-501	5
with marking	see pages 352 ... 353	
Approvals Also see "Approvals Overview" in Section 1		
Conformity marking	CE	
UL 508		
ANSI/ISA 12.12.01	pending	
EN 60079-0, -15	pending	
EN 61241-0, -1		

Technical Data	
No. of outputs	2
Current consumption (internal)	80 - 110mA
Voltage via power jumper contacts	24 V DC (-1.5 % ... +20 %)
Output voltage	6 V ... 18 V (switchable)
Output current	0/4 mA ... 20 mA (switchable)
Load impedance	> 1.8 kΩ (voltage output) < 500 Ω (current output)
Resolution	16 bits
Conversion time (typ.)	5 ms
Recovery time (typ.)	< 300 μs
Measuring error (25°C)	< ± 0.05 % of the scale end value
Temperature coefficient	< ± 100ppm
Isolation	500 V system/supply
Bit width	2 x 16 bits data 2 x 8 bits control/status (option)
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Stripped lengths	8 ... 9 mm / 0.33 in
Width	12 mm
Weight	53.5 g
EMC: CE - immunity to interference	acc. to EN 61131-2 (2003)
EMC: CE - emission of interference	acc. to EN 61131-2 (2003)