PowerTag

A9MEM1520-18

A9MEM1520

A9MEM1521-18

A9MEM1521

A9MEM1540-18

A9MEM1540

A9MEM1522-18

A9MEM1522

A9MEM1541-18

A9MEM1541

A9MEM1542-18

A9MEM1542

IEC 61557-12 PMD/DD/K55/1

PowerTags are energy sensor modules for 1P, 1P+N, 3P and 3P+N networks. They are mounted directly on equipment of the Acti 9 or Multi 9 range at intervals of 18 mm up to 63 A.

Functions

Combined with Acti 9 Smartlink SI B (Ethernet) or Acti 9 Smartlink SI D (Ethernet) by radio-frequency communication, PowerTag sensors measure the following values in accordance with the IEC 61557-12 standard
■ Cumulative active energy, total and partial (kWh).
■ Rms values:
□ phase-to-neutral and phase-to-phase voltages (V),
□ currents per phase (A),
□ total active power and active power per phase (W),
□ power factor.
Installed upstream or downstream of a protective device, they measure useful data for diagnosis of the associated circuit.
Configuration
■ Recognition of the device in the Acti 9 Smart Test configuration software: the product flashes in the switchboard during configuration for easy recognition.
■ Addition of context-related information to Acti 9 Smart Test (name of the load, energy usage, single-line circuit label).
■ Partial energy counter can be reset or preset to a special value via the software.
Integration in Acti 9 Smartlink
■ Use of a wireless concentrator to report data:
□ Acti 9 Smartlink SI B (Ethernet) for a complete metering, monitoring and control solution,
□ Acti 9 Smartlink SI D (Ethernet) for a metering and monitoring solution only.
■ Native display, in Smartlink's embedded web pages, of the quantities measured by the PowerTag sensors.
■ Load monitoring
□ alarm sent by the sensor in the event of a voltage loss,
□ pre-alarms on predefined thresholds (50 %, 80 %) or customized thresholds (thresholds on currents, power, voltages and cumulative energies).
■ Alarm management on current/voltage/load level thresholds by e-mail.
■ Display of alarms and pre-alarms on Smartlink embedded web pages.
■ Easy integration into system with Com'X200, Com'X 510 and other Schneider Electric software and third-party Building Management Systems (BMS's) thanks to the Acti 9 Smart Test report in Excel format. This report provides dynamically all the Modbus registers, including bits and meanings associated, for an easy integration into the software.
■ Remote metering possible using the Smartlink monitoring page.

DB405140
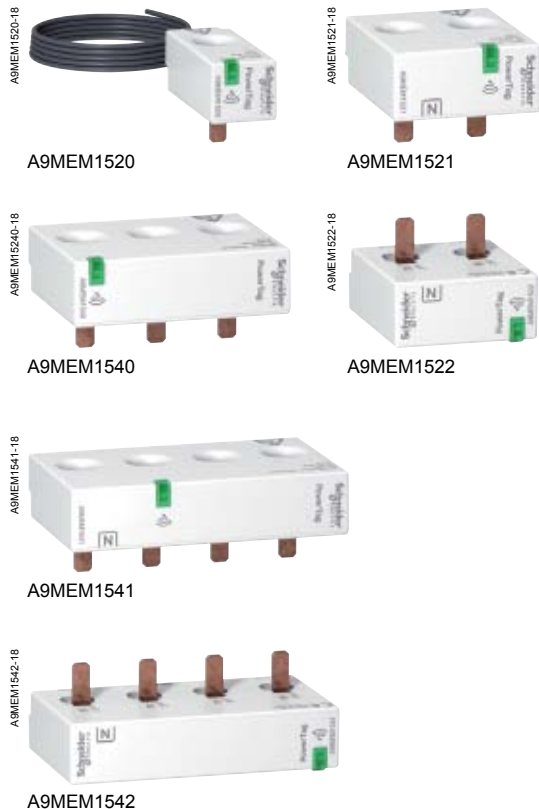
Test software: Acti 9 Smart Test
■ Electrical continuity test (cabling of connected devices)
■ Communication Testing of wired, wireless devices, analog and Modbus devices..
■ Editing of a complete test report (Excel, pdf) with the Modbus communication registers for easy integration into a supervision system
■ Windows XP, Windows 7, Windows 8 and Windows 10 compatible
■ Downloadable from: schneider-electric.com

DB408571

Catalogue numbers

PowerTag		
Type	**Type of mounting**	**Cat. no.**
1P	Top and bottom	**A9MEM1520**
1P+N	Top	**A9MEM1521**
	Bottom	**A9MEM1522**
3P	Top and bottom	**A9MEM1540**
3P+N	Top	**A9MEM1541**
	Bottom	**A9MEM1542**

> ## Metering and monitoring and control
> **Acti 9 Smartlink SI B (Ethernet)**

Embedded web pages
■ Monitoring display
■ Alarm management and display
■ E-mail sending

Integrated Modbus gateway

Channels for monitoring/ control
■ Contactors, OF/SD devices, analog sensors

Compatible products
"Single terminal" circuit breakers and switches at intervals of 18 mm, ratings less than or equal to 63 A:
■ Acti 9 : iC60/iID/iID K/iSW (< 63 A)/iSW-NA/ Reflex iC60/iK60/i65N-K
■ Multi9 : C32/C45/C60/K60/ID/ISW/I-NA
■ DT60
See catalogue module CA908058

PowerTag
■ Radio frequency communication
■ Up to 20 sensors connected

> ## Metering and monitoring only
> **Acti 9 Smartlink SI D (Ethernet)**

Embedded web pages
■ Monitoring display
■ Alarm management and display
■ E-mail sending

■ Installation on DIN rail
■ 230 V AC power supply

PowerTag
■ Radio frequency communication
■ Up to 20 sensors connected

Compatible products
"Single terminal" circuit breakers and switches at intervals of 18 mm, ratings less than or equal to 63 A:
■ Acti 9 : iC60/iID/iID K/iSW (< 63 A)/ iSW-NA/Reflex iC60/iK60/i65N-K
■ Multi9 : C32/C45/C60/K60/ID/ ISW/I-NA
■ DT60
See catalogue module CA908058

PowerTag (cont.)

Technical characteristics

Main characteristics

Rated voltage	Un	Phase-to-neutral	230 V AC ± 20 %
		Phase-to-phase	400 V AC ± 20 %
Frequency			50/60 Hz
Maximum operating current	Imax		63 A
Saturation current			130 A
Maximum consumption			≤ 2 VA
Starting current	Ist		40 mA
Base current	Ib		10 A

Additional characteristics

Operating temperature			-25°C to +60°C
Storage temperature			-40°C to +85°C
Overvoltage category	As per IEC 61010-1		Cat. III
Measuring category	As per IEC 61010-2-30		Cat. III
Pollution degree			3
Altitude			≤ 2000 m
Degree of protection	Device only		IP20
	IK		05

Radio-frequency communication

ISM band 2.4 GHz			2.4 GHz to 2.4835 GHz
Channels	As per IEEE 802.15.4		11 to 26
Isotropic Radiated Power	Equivalent (EIRP)		0 dBm
Maximum transmission time			< 5ms
Channel occupancy	For 1 device		Messages sent every 5 seconds

Characteristics of measuring functions

Function		Performance category as per IEC 61557-12	
Active power	P	1	9 W to 63 kW
Active energy	Ea	1	Total and partial 0 to 99999999.9 kWh
Current	I	1	2 A to 63 A
Voltage	U	0.5	Un ± 20 %
Power factor	PFA	1	0 to 1

PB115448-40

Version : 1.0   26/05/2016   CA907029E

PowerTag (cont.)

Connection
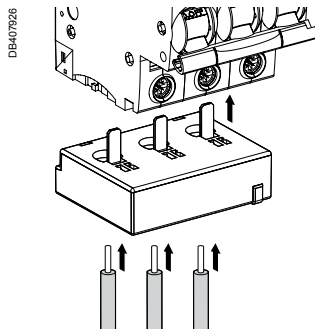
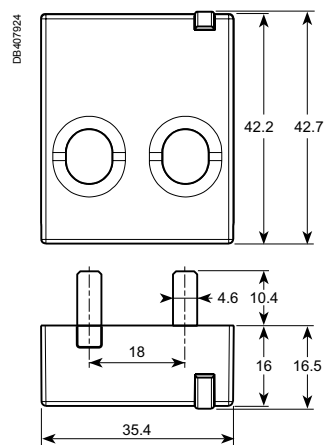| Stripping length	Copper cables					
	Rigid		**Flexible**		**Flexible with ferrule**	
	DB122945	DB112804	DB123553	DB112805	DB123554	DB123008
18 mm(*)	1.5 to 16 mm^2	2 x 1.5 to 2.5 mm^2	1.5 to 16 mm^2	2 x 1.5 to 2.5 mm^2	-	-
18 mm	-	-	-	-	1.5 to 16 mm^2	2 x 1.5 to 2.5 mm^2

■ Mounting with 18 mm ferrule recommended.
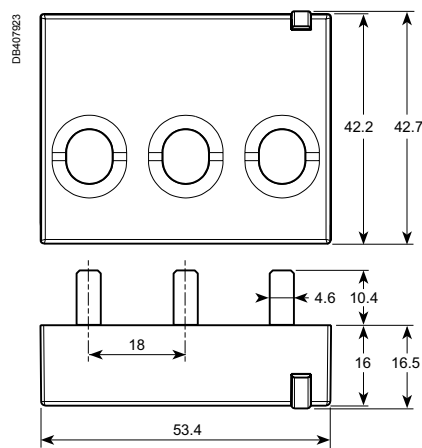■ (*) Without ferrule/cable ends, respect the stripping length stated on the associated products.
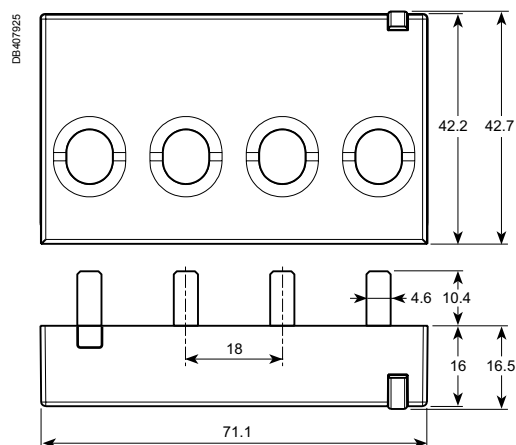
Dimensions (mm)

1P

3P

1P+N
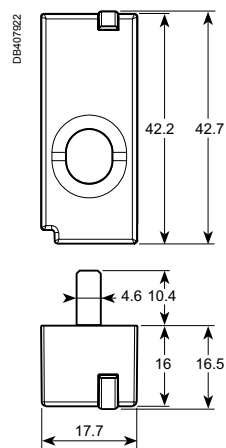
3P+N

Weight (g)

PowerTag	
Type	
1P	16.4
1P+N	17.5
3P	28
3P+N	35

Indice	Date	Modification		Name
1.0	31/08/2015	Creation		Sonovision