

VAMP 11F

Overcurrent Protection Relays



VAMP 11F is a basic numerical relay that provides reliable and effective overcurrent protection with automation, control and measurement functions. It may be applied to all low voltage or medium voltage applications as a primary or back-up protection device.

VAMP 11 series is one of the latest additions to the Vamp range, which has always been strongly linked to flexible and easy-to-use protection relays. VAMP 11 series inherits and will eventually take over the well known MiCOM Px11 series. With attention to simplicity and cost effectiveness, the new **VAMP 11 series** becomes the reference for the most efficient devices for standard protection applications.

Thanks to a fantastic cost to functionality ratio, the **VAMP 11 series** is an innovative solution that is tailored to user's needs and can be applied in any type of low or medium voltage network where phase overcurrent and earth fault protection is required.

Many selectable options embedded in the relay offer a high level of flexibility in terms of application and maintenance. CT ratio, communication protocol, HMI language are all selectable in the menu. Moreover, 5 relay models are used to accommodate specific applications and operating conditions. This approach optimises the protection to the requirements and prevents wasted functionality and cost. A unique list of only 18 model variants (type designations) cover all models, earth fault current setting range, auxiliary power supply options, meaning that ordering and storage is simplified for ease of use.

Switchable serial communication (IEC 60870-5-103 or Modbus) allows the device to connect to almost any kind of SCADA system. A front USB port and multilingual HMI makes Vamp 11F user-friendly with reduced maintenance costs.

VAMP 11 series is housed in a standard flush mounting case which can be complemented by two optional accessories:

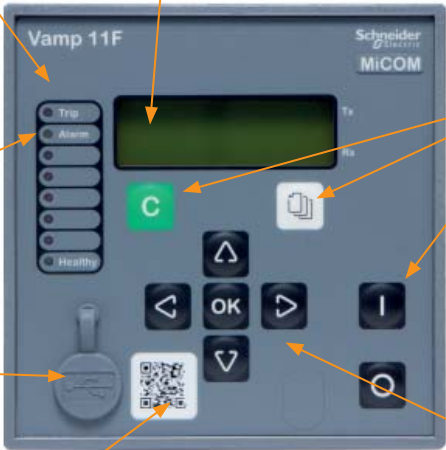
- Wall mounting adaptor
- Secure front cover to prevent unauthorised access

Customer benefits

- Easy-to-use with 7 language HMI
- Easy-to-install with small installation footprint
- Easy-to-set by user-friendly HMI or USB port
- Easy-to-communicate via IEC 60870-5-103 and Modbus protocols
- Easy-to-operate with in-built CB control keys
- Easy-to-order, only 18 hardware variants

Ease of use

User-friendliness has always been a feature of VAMP products, and the VAMP 11F is no exception. A great deal of effort and experience has gone into the design of operational aspects of the product.



IP54 protection degree
Front panel is resistant to dust and dripping water

Efficient HMI
It informs the user about settings, measurements & faults. Easily configured & set without need for a software tool. 7 operation languages available: English, German, French, Spanish, Russian, Turkish and Polish

Flexible LEDs
Makes maintenance easy. 6 LEDs can be programmed according to user needs

Easy maintenance
Simplification of daily work with dedicated maintenance & circuit breaker control keys

Front communication port
USB port for easy setting & maintenance

Effortless navigation
An intuitive pull-down menu structure makes navigation easy and quick. All disabled functions are hidden to maximise the effectiveness of use

QR code
Fast access to additional information (based on model and serial number information)

All functions, automation, communication, inputs and outputs can be programmed and modified directly from either front panel or setting software



The free-of-charge MiCOM S1 Studio (v5.1.0 or above) provides full support for configuration of the relay by PC.

The configuration file can be prepared off-line and installed during commissioning via the front USB port.

This allows fast integration, especially where fast installation is a key performance factor.



PC connection has never been so easy thanks to a mini-USB front port.

Application

VAMP 11F relays provide fast and accurate protection for various applications requiring phase overcurrent and/or earth fault protection. With a focus on tailoring to user's needs, Vamp 11F is offered in 5 hardware model variants. All of them are housed in uniquely small case what

Model L

Basic phase and earth fault current protection with fault recording and two setting groups. With only 4 relay output contacts and circuit breaker control keys, this model provides the most economical solution for basic current protection. A perfect choice for retrofit of older technology devices or for a low cost medium or low voltage substations. This model is offered as non-communicating however it may be extended with a rear RS485 port for remote communication (switchable IEC60870-5-103 or Modbus).

Model N

Communicating device with basic phase overcurrent and earth fault protection. It provides thermal overload function, fault and events recording and two setting groups. It comprises 6 relay outputs, a front USB and rear RS485 communication port with switchable IEC 60870-5-103 or Modbus protocol. Circuit breaker control can be effected via front panel keys and from SCADA. This model is cost-optimized for essential protection functions that require serial communication. Perfectly suited to industrial or commercial sites with medium voltage electric supply as back-up protection or to low voltage substations.

Model B

Standard protection relay with phase overcurrent, earth fault protection and communication. It provides switch on to fault and blocking logic functions, event and fault recording and two setting groups. It comprises 4 relay outputs and 4 binary inputs, a front USB and rear RS485 communication port. Circuit breaker control is effected by front panel keys, remote communication port or via binary input. It's perfectly suited to industrial or commercial sites with medium voltage supply as cost optimised protection solution for feeder, incomer or transformer. Thus, it is the best choice for panel builders and OEMs as a standard, compact and reliable protection relay.

Model A

Advanced model with phase overcurrent and earth fault protection. Covering all features of model B, it's comprises additionally inrush blocking function and in-built circuit breaker and trip circuit supervision. Moreover it can store 4 sec of disturbance records. CB control can be realized via front panel keys, remotely thru communication port or via binary input. This model offers a unique functionality of powering HMI board via USB front port. It means that setting and data downloading can be done without auxiliary voltage presence. Having 4 binary inputs and 8 relays outputs it can be applied to more advanced schemes within utilities or industrial sites as feeder, incomer or transformer protection.

Model E

It's a highest model in Vamp 11F range. Covering all features of model A it comprises 8 binary inputs and 6 output relays. This relay can meet the requirements of more advanced applications in medium and low voltage substation. Additionally, in-built negative sequence overcurrent protection, broken conductor detection and 4 shot auto-reclose function makes VAMP 11F suitable as a feeder protection of overhead lines. Thanks to small size and high functionality, this relay is regarded as a perfect retrofit solution for almost all overcurrent electromechanical devices including auto-reclose relays. If back-up protection relay is needed, the Vamp 11F model E will provide required functionality and will keep the budget healthy.

VAMP 11F functional overview

IEEE device no.	Function	Model L	Model N	Model B	Model A	Model E
49	Thermal overload (true RMS) 2 independent thresholds (Alarm, Trip)		●	●	●	●
50BF	Circuit breaker failure	●	●	●	●	●
50/51	Three-phase non directional overcurrent 3 independent thresholds (20 groups of IDMT curves)	●	●	●	●	●
	Switch on to fault (SOTF)			●	●	●
	Inrush blocking				●	●
	Selective relay scheme logic					●
	Blocking logic			●	●	●
	Cold Load Pick-Up	●	●	●	●	●
50N/51N	Phase-earth non directional overcurrent 2 independent thresholds (20 groups of IDMT curves)	●	●	●	●	(3 stages)
46	Negative phase sequence overcurrent					●
46BC	Broken conductor detection (I2 / I1)					●
79	Auto reclose (4 shots)					●
86	Output relay latching	●	●	●	●	●
	Binary inputs	0	0	4	4	8
	Output relays	3	5	3	7	5
	Watchdog contact	1	1	1	1	1
	Phase current inputs	3	3	3	3	3
	Neutral current input	1	1	1	1	1
	Circuit breaker supervision				●	●
	Trip circuit supervision				●	●
	CB supervision				●	●
	Event recording	(option)	200	200	200	200
	Fault recording	20	20	20	20	20
	Disturbance recording				4s	4s
	Counters				●	●
	Setting groups	2	2	2	2	2
	Time synchronisation (via binary input)					●
	LCD display / back-lit	● / -	● / -	● / ●	● / ●	● / ●
	Mini-USB		●	●	●	●
	Remote communication (RS485)	(option)	Modbus / IEC103	Modbus / IEC103	Modbus / IEC103	Modbus / IEC103
	Measurements	●	●	●	●	●
	CB control via front keys / RS485 / Binary input	● / - / -	● / ● / -	● / ● / ●	● / ● / ●	● / ● / ●

Protection functions

Three-Phase Overcurrent (50/51) & Earth Fault Overcurrent (50N/51N)

Three independent stages are available for phase overcurrent protection (50/51) and two stages for earth fault overcurrent protection (50N/51N). For phase currents, the user can set the first and second stage with definite time delay (DMT) or inverse time delay (IDMT). For earth fault protection, the first stage can be set with definite time delay or inverse time delay. Both protection functions work with different types of curves (see below) Each stage and related time delay can be programmed to provide maximum selectivity.

In both functions the first stage reset delay type can be selected between DMT or IDMT timer to reduce clearance times when intermittent faults occur.

VAMP 11F relay has separate instantaneous and delayed indications for each stage. Output relays and LEDs can be configured to indicate fault phase(s). Overcurrent protection function can be disabled, enabled, configured to trip, trip-inrush blocking, trip-latch, trip-phase A, B, C, to trip a circuit breaker or as alarm signal only.

Switch-on-to-Fault (based on 50/51)

When a earthing switch is closed and we try to close the circuit breaker, it leads to a short circuit fault. For such a situation VAMP 11F offers a settable switch-on-to-fault protection element. This function provides an instantaneous trip over a settable time period after local or remote manual close command.

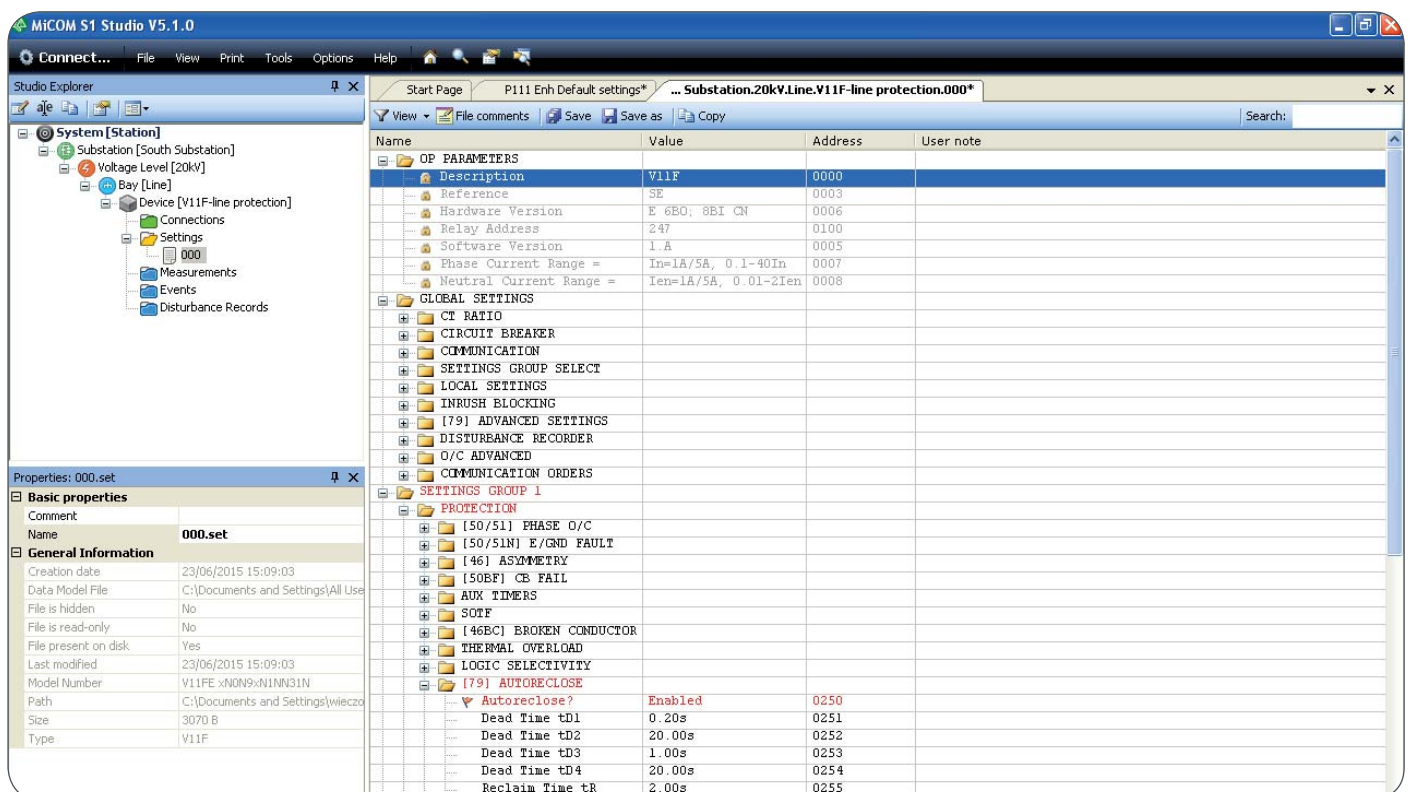
In transformer applications, the selectivity of instantaneous trip may be affected by inrush current. That is why the switch-on-to-fault protection element can be set with short time delay (DMT). Setting a current threshold below any inrush current peak maintains the selectivity.

Circuit Breaker Failure (50BF)

An effective opening of the circuit breaker can be verified with a dedicated undercurrent threshold. In this purpose VAMP 11F offers a circuit breaker failure protection element. This function can be initialized by a trip of internal protection function and/or an external command executed by binary input. This protection element can be used to trip upstream circuit breakers as well.

Thermal Overload (49)

Protecting the transformers or cables, it is necessary to take in account their specific thermal characteristics. VAMP 11F relays include a thermal replica protection element based on the true RMS value of current (up to 10th harmonic). Alarm or Trip overload thresholds and time constant can be programmed freely in order to match a variety of applications.

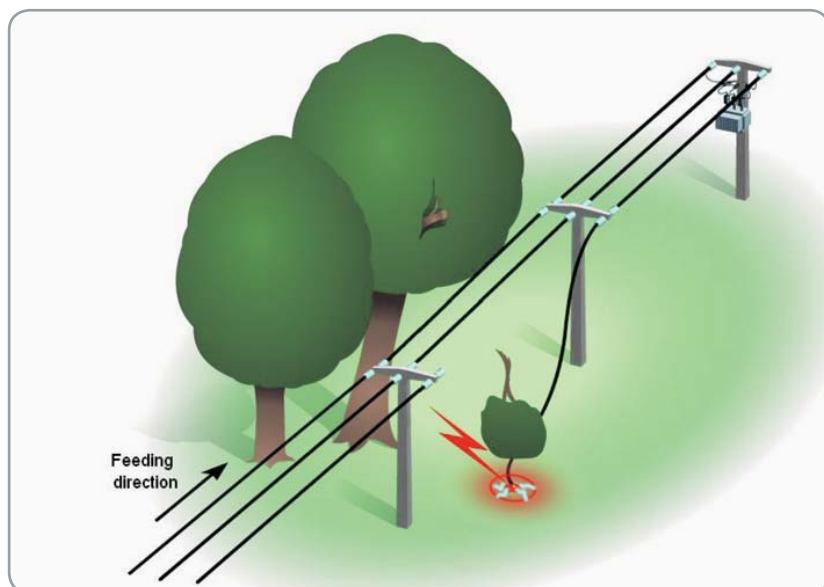


Inrush Blocking

When a transformer or rotating machine energized, high current peak values occur. This inrush blocking function detects high 2nd harmonic share in current inflow and distinguishes it from high currents caused by faults or overloads. The function blocks temporarily other protection elements (freely selectable: phase and earth fault overcurrent protection, negative sequence overcurrent protection) in order to avoid unwanted tripping.

Broken Conductor (46BC)

A broken conductor, a discrepancy in poles' position of switchgear or a blown fuse can generate an open circuit fault. VAMP 11F protects against this kind of unbalanced faults with broken conductor element. This function measures a ratio between negative and positive sequence current (I_2/I_1). Thanks to flexible settings it offers more sensitivity and stability than pure negative sequence current measurement.



Auto reclose (79)

VAMP 11F offers a 4 shot auto-reclose functionality with a large number of programmable parameters. It is used usually within feeder protection of overhead lines and provides an automatic reclosing of circuit breaker after trip and set dead time. Reclosing cycles in short time period are controlled by a parameter that allows a certain number of cycles after the first one occurred. Dead and reclaim time are freely adjustable. Front panel LEDs can be configured to indicate the status of auto reclose function. A counter stores the information on the number of commands. Such information is accessible locally or remotely.

Cold Load Pick-Up

This function raises temporarily the setting values of selected stages in order to avoid unwanted tripping, ex. during start-up of a rotating machine. A particular setting value can be increased from 20% up to 999% for a specified period of time. Current criteria or circuit breaker position triggers this function.

- IEC_SI
- IEC_VI
- IEC_EI
- IEC_LTI,
- UK_STI
- C02_P20
- US_C08,
- IEEE_MI
- IEEE_VI
- IEEE_EI
- RXIDG
- BPN EDF
- RI
- RECT
- C02_P40 curve
- US C05
- US C06
- US C07
- US C09
- US C11

Trip Circuit Supervision

VAMP 11F is able to supervise the circuit breaker position including both open and close states. A binary opto-isolated input is used to perform this functionality.

Command and control functions

Timers AUX1, AUX2, AUX3

Timers operate if the state of an input mapped to this function changes in such a way that the function will be triggered. Timers can be used for CB tripping or alarm signaling. This function is available when inputs are energised via an auxiliary power supply.

Blocking logic

When VAMP 11F is used in a critical network, it must take into consideration all surrounding devices. A blocking digital input can be independently configured to lock any combination of selected elements. This function allows the VAMP 11F to clear the fault quickly and correctly when applied in a cascading scheme.

Relay output latching (86)

All relay outputs may be latched freely. Latched outputs can be reset via the activation of a logic input, through the front panel interface or by remote communication.

Instantaneous information

Outputs and LEDs can be programmed with instantaneous information from freely selectable protection elements: with or without latching. Additionally, every start of a protection element is recorded in the event recorder and the instantaneous recorder. The instantaneous information is typically generated within 30 ms after the threshold has been exceeded.

Trip via binary inputs

Binary inputs are freely configured to timers AUX1 - AUX5. When an external voltage triggers the input, the protection function will operate. This external trip functionality may be used with a Buchholz relay or any other protection device.

Two setting groups

External conditions may require the need for different settings or input / output configuration. The VAMP 11F offers two independent setting groups to make life easy and efficient. The active setting group can be switched from the local HMI or remotely via a digital input state change, or SCADA system command. The two setting groups include protection settings, binary inputs, relay outputs and LEDs.

Input or output configuration

All inputs and outputs can be freely configured for available functions (blocking of protection element, LED reset, outputs reset, start, trip of every protection element, etc.).

All inputs and outputs can be assigned to any predefined function.

Relay maintenance mode

The VAMP 11F incorporates direct control of the output relays (without the need to inject any current). This functionality allows the user to quickly check the external wiring of the relay's output contacts for simplified commissioning.

Local/remote mode of CB commands

Local or remote operating mode can be enabled or disabled via a digital input, or via the RS 485 communication port. This operating mode can be indicated via the LED configuration. The goal of this feature is to ensure that commands sent remotely through the communication port (settings, control commands etc.) are blocked when in local mode. This prevents accidents or maloperation during maintenance work on site.

Circuit breaker or contactor commands

Depending on the model chosen, circuit breaker control is available from:

- Front panel user interface (open/close)
- Optically isolated digital inputs
- Remote substation communication.

Circuit breaker condition monitoring

The circuit breaker condition monitoring features include:

- Monitoring the number of breaker trip operations
- Monitoring the breaker operating time

An alarm signal is emitted if the above parameters exceed the settable threshold.

Self monitoring

Comprehensive self-monitoring procedures within the VAMP 11F ensure that any possible errors are identified before they can cause malfunction. A functional self-test is carried out whenever the auxiliary voltage is turned on.

The result of the fault diagnostics is stored in non-volatile memory and determines whether the protection unit will be blocked, alarmed, or healthy.

Measurements

The VAMP 11 series offers a complete set of measurement functions to replace the conventional metering functions of switchgear and controlgear installations.

The measurement functions cover phase and neutral currents, symmetrical components and harmonics from phase currents. Condition monitoring continuously monitors trip circuits, breaker wear and current transformers. All measurements are available locally or remotely. VAMP 11F provides full measurements and displays them as true RMS or fundamental values on display:

- phase currents IA, IB, IC
- neutral current IN,
- positive sequence of current Is1, (model E)
- negative sequence of current Is2, (model E)
- relative Is2/Is1 [%], (model E)
- Thermal overload [%], (models N, B, A, E)
- 2nd harmonic IA [%], IB [%], IC [%], (models A,E)

Logs and records

All events, faults and disturbance records are time-stamped to 1 ms accuracy by the internal real time clock. In the event of a loss of auxiliary power, a back-up of 3 days is provided in non-volatile memory. There is no battery inside the relay, which makes it environment friendly and easy to maintain. All records can be accessed locally, using the MiCOM S1 Studio setting software (USB), or remotely (RS485 port).

Event records

200 event records can be stored in the VAMP 11F. Events include input or output state changes, alarms and contact operations. When the memory is full, the oldest events are overwritten, allowing storage capacity for the most recent events.

The downloading of events records can be done via front USB port (MiCOM S1 Studio) or the rear RS485 port (SCADA system).

Fault records

The last 20 faults and 5 alarms records are stored in memory. Each fault includes: record number, fault time, active setting group, faulted phase, protection operation, and magnitude of inputs.

Fault indication helps the user to clearly identify the fault. Moreover, availability of fault data on the relay HMI or communication ports allows fine-tuning of relay settings and protection operation.

Disturbance records

Up to 5 disturbance files can be stored in the relay (models A, E). While the total length of records is limited to 4 sec, each record length can be easily set independently. The user may set 1 record with 4 sec duration or 5 records with a total 4 sec duration. The pre-fault and post-fault duration is adjustable for each file. The records are stored in COMTRADE format. The disturbance recording function is triggered by any of the programmed thresholds or by an external input or through the communications. All digital and analog information is stored in non-volatile memory and can be transferred using the front or rear communication ports, for later use by an external data analyser.

Hardware & case

Protection relays have never been so small and compact.

At only 106.5 x 106.5 x 118 mm and weighing less than 0.6kg, Vamp 11F can be installed virtually anywhere. Optional accessories allow increased versatility such as a wall mounting adaptor and a secure access cover to prevent unauthorised access.



Easy access



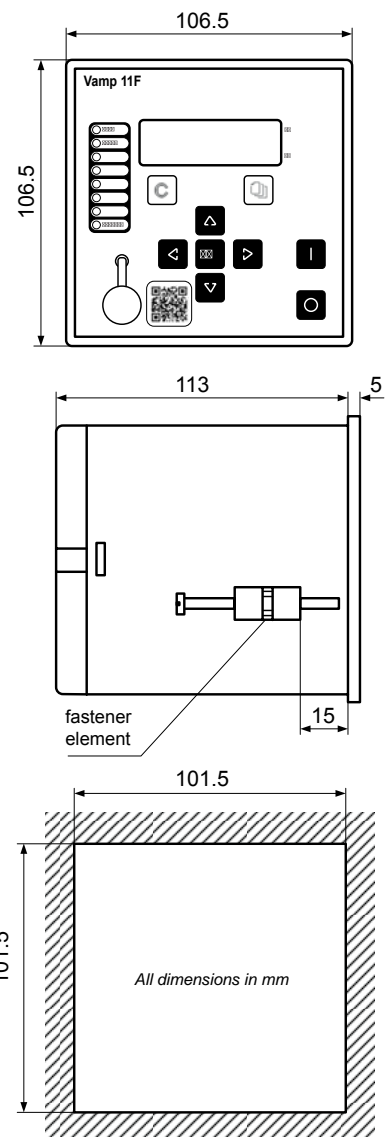
- Vamp 11F can be mounted on the wall (optional kit)
- Allows for quick and simple access to wiring

Safe access



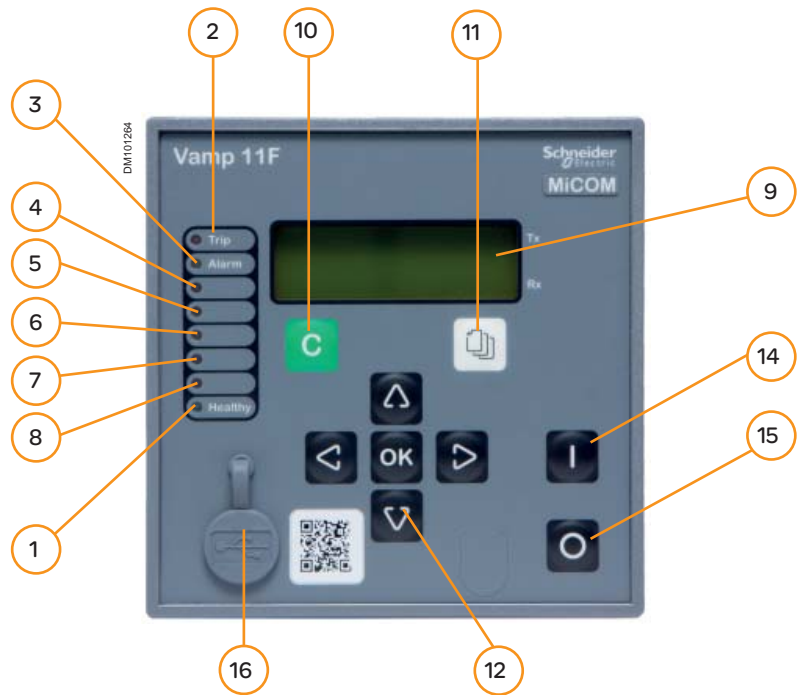
- Optional access cover prevents unauthorised access to the relay

Dimensions



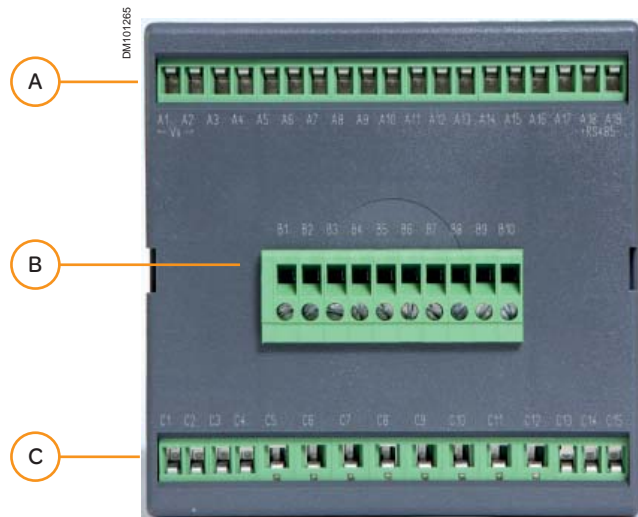
Front panel description

- 1 Green "Healthy" LED : Watchdog
- 2 Red "Trip" LED : Protection trip
- 3 Yellow "Alarm" LED : Alarm signalling
- 4
- 5
- 6 Red programmable LEDs
- 7
- 8
- 9 Liquid crystal display (LCD)
- 10 CLEAR key
- 11 READ key
- 12 ENTER key and 4 ARROW navigation keys
- 14 CB CLOSE key
- 15 CB OPEN key
- 16 USB port for local connection



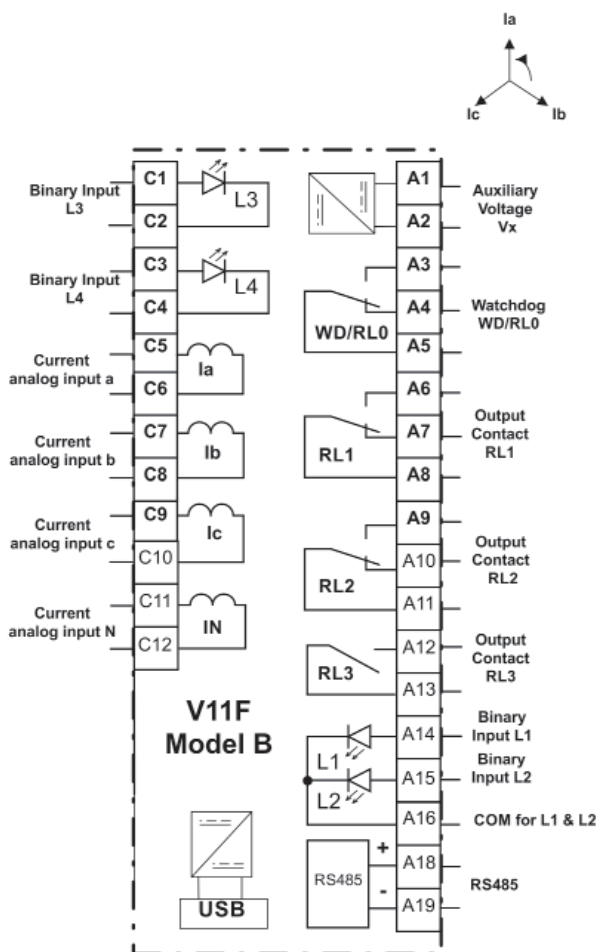
Rear panel description

- A
 - Auxiliary voltage Vaux
 - Contact outputs: WD, RL1-RL3
 - Binary inputs L1, L2 (models B, A, E)
 - RS485
- B
 - Contact outputs RL6, RL7 (model A)
 - Contact outputs RL4, RL5 (model E)
 - Binary inputs L3, L4 (model A)
 - Binary inputs L5, L6, L7, L8 (model E)
- C
 - Current analog inputs
 - Contact outputs RL4, RL5 (models N, A)
 - Binary inputs L3, L4 (models B, E)

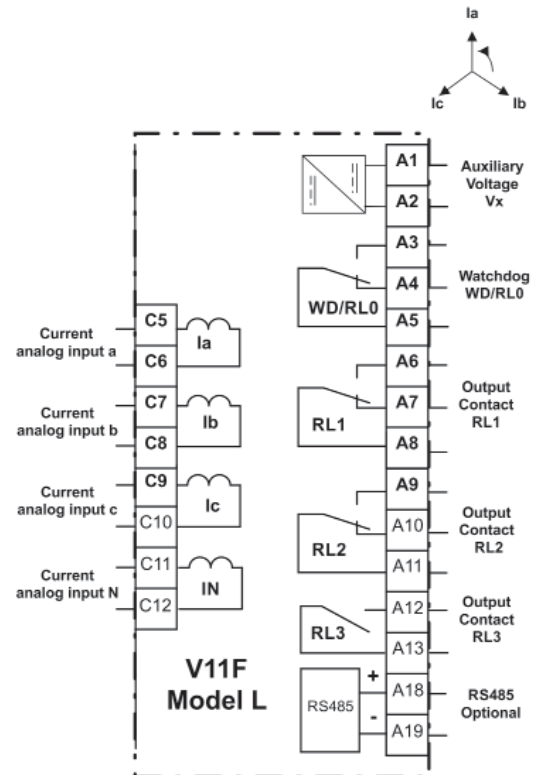


Connection diagrams

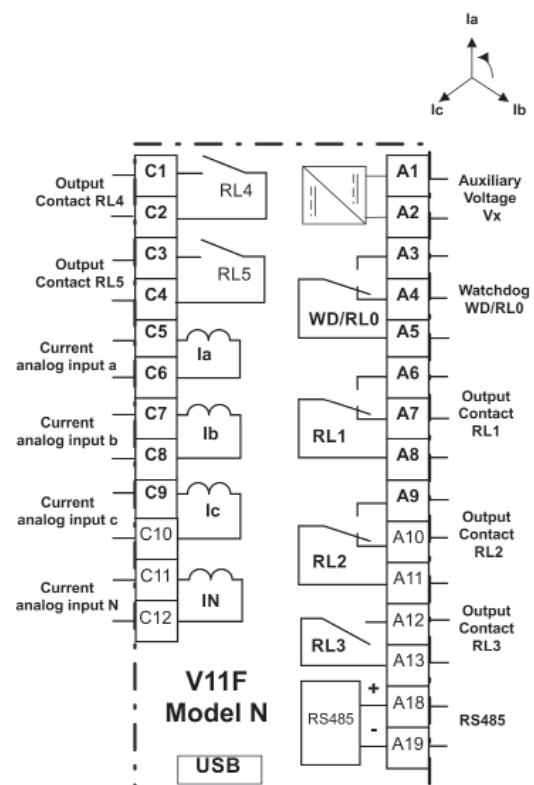
Connection diagram model B



Connection diagram model L



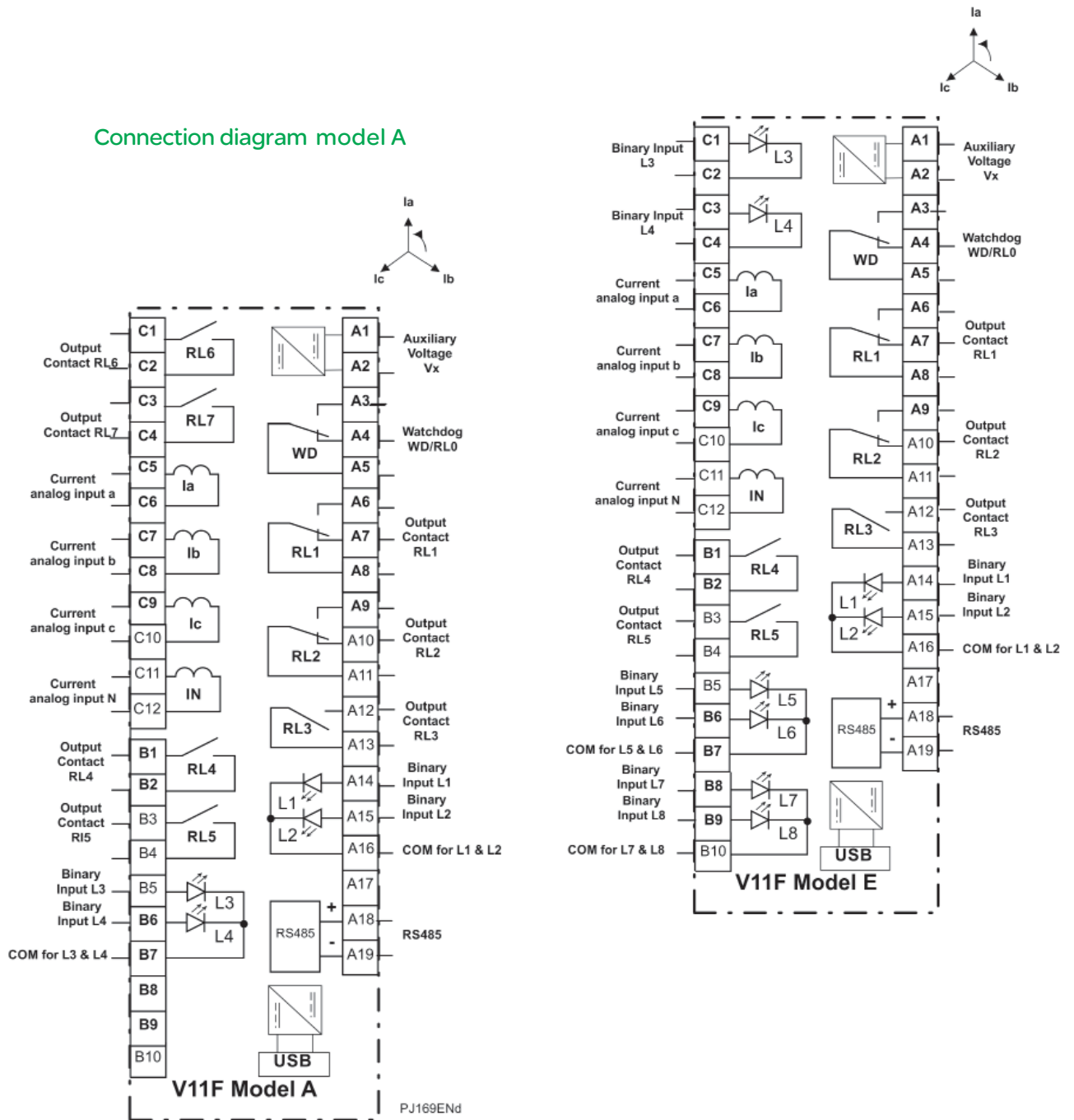
Connection diagram model N



Connection diagrams

Connection diagram model E

Connection diagram model A



Main technical data

Auxiliary voltage	
Auxiliary voltage range	<ul style="list-style-type: none"> ■ 24 – 60 Vdc/ac (B, A, E) ■ 90 – 240 Vdc/ac (B, A, E) ■ 24 – 240 Vdc/ac (L, N)
Operating range	<ul style="list-style-type: none"> ■ 19 – 72 Vdc, 19 – 66 Vac (B, A, E) ■ 71 – 300 Vdc, 71 – 265 Vac (B, A, E) ■ 19 – 300 Vdc/ 19 – 265 Vac (L, N)
Current inputs	
Nominal current In and Ion	■ 1A or 5A
Nominal burden In and Ion	<ul style="list-style-type: none"> ■ < 0.3 VA for 5A ■ < 0.1 VA for 1A
Thermal withstand for In and Ion	<ul style="list-style-type: none"> ■ 1 s for 100 x rated current ■ 2 s for 40 x rated current ■ 10 s for 30 x rated current
Continuous withstand for In and Ion	■ 4 x rated current
Nominal frequency	■ 50 Hz or 60 Hz

Binary inputs	
Maximum voltage input	<ul style="list-style-type: none"> ■ 110 Vdc/78 Vac for aux voltage (24 – 60) Vac/dc ■ 300 Vdc/264 Vac for aux voltage (90 – 240) Vac/dc
Quantity of digital inputs	<ul style="list-style-type: none"> ■ 0 for models L, N ■ 4 for models B, A ■ 8 for model E
Operating threshold	<ul style="list-style-type: none"> ■ 16 Vdc/18 Vac for aux voltage range 24 – 60 Vac/dc ■ 66 Vac/dc for aux voltage range 90 – 240 Vac/dc

Relay outputs	
Rated voltage	■ 250Vac
Continuous carry	■ 5A
Numbers of outputs contacts (including watchdog contact)	<ul style="list-style-type: none"> ■ 4 for models L, B ■ 6 for models N, E ■ 8 for model A

Disturbance tests	Standard	Test value
Emission	EN 60255 - 26	
Conducted	EN 55022: Class A (CISPR 22)	■ 0.15 – 30 MHz
Radiated	EN 55022: Class A (CISPR 11)	■ 30 - 2000 MHz
Immunity	EN 60255 - 26: 2013	
1MHz damped oscillatory wave	EN 61000-4-18: Level 3	■ 2.5 kV CM, 1.0 kV DM
Static discharge (ESD)	EN61000-4-2: Level 3	■ 8 kV air ; 6 kV contact
Fast transients (EFT)	EN61000-4-4: Level 3	■ 2 kV CM, 5/50 ns, 5 kHz
Surge	EN61000-4-5: Level 3	■ 2 kV CM, 1 kV DM
Conducted HF field	EN61000-4-5: Level 3	■ 0.15 to 80 MHz, 10 Vemf
Emitted HF field	EN61000-4-3: Level 3	■ 80 – 2700 MHz, 10 V/m:
Voltage alternative component	EN61000-4-17	■ 15% of operating voltage (DC)
Voltage dips	EN61000-4-11 EN61000-4-29	<ul style="list-style-type: none"> ■ 100%, 24 V / 20 ms, 60 V / 50 ms, 90 V / 100 ms, 220 V / 500 ms (DC)
Voltage interruptions	EN61000-4-11 EN61000-4-29	■ 100%, 5 s
Power-frequency magnetic field	EN61000-4-8: Level 4	■ 30 A/m (continuous), 300 A/m 1-3 s
Pulse magnetic field	EN61000-4-8: Level 5	■ 1000 A/m

Mechanical tests	Standard & test class / level	Test value
Device in operation		
Vibrations	EN 60255-21-1: Class 1	■ 0.5 Gn; 10 -150 Hz
Shocks	EN 60255-21-2: Class 1	■ 5 Gn / 11ms
Seismic	EN 60255-21-3: Class 2	<ul style="list-style-type: none"> ■ 2 G horizontal / 1 G vertical, ■ 1 – 35 Hz
Device de-energised (UK EN) or de-energized (US EN)		
Vibrations	EN 60255-21-1: Class 1	■ 1 Gn; 10 – 150 Hz
Shocks	EN 60255-21-2: Class 1	■ 15 Gn / 11 ms
Seismic	EN 60255-21-2: Class 1	■ 10 Gn / 16 ms

Electrical safety tests	Standard & Test class / level	Test value
Impulse voltage withstand	EN 60255-27	■ 5 kV, 1.2/50 µs, 0.5 J
Dielectric test	EN 60255-27	■ 2 kV, 50 Hz
Insulation resistance	EN 60255-27	
Power supply burden	EN 60255-1	

Environmental tests	Standard & w test class / level	Test value
Device in operation		
Dry heat	EN 600068-2-2: Bd	+60°C (140°F)
Cold	EN 600068-2-1: Ad	-20°C (-40°F)
Damp heat, cyclic	EN 600068-2-30: Db	<ul style="list-style-type: none"> ■ From 25°C (77°F) to 55°C (131°F) ■ >93% to 97% RH, duration 6 days
Damp heat, static	EN 600068-2-78: Cab	<ul style="list-style-type: none"> ■ 40 C (104 F), 93% RH, duration 21 days ■ 60°C (140°F), 93% RH, duration 10 days
Change of temperature	EN 600068-2-14: Nb	■ 100 cycles, -20 C (-4 F) to 60 C (104 F)
Device in storage		
Dry heat	EN 600068-2-2: Bb	+70°C (158°F)
Cold	EN 600068-2-1: Ad	-40°C (-40°F)

Environmental conditions	Standard & test class/level
Ambient temperature, in service	■ -20°C to +60°C (-4°F to +140°F)
Ambient temperature, in storage	-40°C to +70°C
Relative humidity	< 95%, no condensation allowed
Maximum operating altitude	2000m (6561.68ft)

Casing	Standard & test class/level
Degree of protection (EN 60529)	<ul style="list-style-type: none"> ■ IP 40 Protection for relay housing ■ IP 20 Protection for terminals. ■ IP 54 Protection for front panel
Dimensions (W x H x D)	106.5 x 106.5 x 118 mm
Weight (net)	Approx. 0.6 kg (model dependent)

Package	Value
Dimensions (W x H x D)	230 x 173 x 163 mm
Weight (gross, including terminals, packaging and installation guide)	1.1kg



DEVICE track record

- Schneider Electric’s VAMP range specialises in protection relays, arc flash protection and measuring and monitoring units for power systems.
- VAMP’s medium-voltage and sub-transmission protection relays are used in numerous applications, from overhead line feeders and substations to power plants and industrial power system. Their unique integrated arc flash fault protection functionality in some of the models enhances the safety of both people and property and has made VAMP a leading range in arc flash protection worldwide. VAMP products meet the latest international standards and regulations.

Ordering codes

- Please indicate the Catalogue No. (for example: REL10041V) to your Schneider Electric representative.

VAMP V11 type designations

Catalog No.	Description	Cortec type
Model L: 4 binary outputs, without binary inputs and communication		
REL10000V <input type="checkbox"/>	lon = 1A/5A ; 0.01-2 lon Vx = 24-240Vac/250Vdc	V11FL1N0N92N0NN11N
REL10001V <input type="checkbox"/>	lon = 1A/5A ; 0.05-12lon Vx = 24-240Vac/250Vdc	V11FL1N3N92N0NN11N
Model L: 4 binary outputs, without binary inputs, rear RS485 port included		
REL10002V <input type="checkbox"/>	lon = 1A/5A ; 0.01-2 lon Vx = 24-240Vac/250Vdc	V11FL1N0N92N1NN11N
REL10003V <input type="checkbox"/>	lon = 1A/5A ; 0.05-12lon Vx = 24-240Vac/250Vdc	V11FL1N3N92N1NN11N
Model N: 6 binary outputs, without binary inputs, rear RS485 and front USB port		
REL10020V <input type="checkbox"/>	lon = 1A/5A ; 0.01-2 lon Vx = 90-240Vac/250Vdc	V11FN1N0N92N1NN11N
REL10021V <input type="checkbox"/>	lon = 1A/5A ; 0.05-12lon Vx = 90-240Vac/250Vdc	V11FN1N3N92N1NN11N
Model B: 4 binary inputs; 4 binary outputs, rear RS485 and front USB port including powering		
REL10040V <input type="checkbox"/>	lon = 1A/5A ; 0.01-2 lon Vx = 24-60Vac/Vdc	V11FB1N0N91N1NN11N
REL10041V <input type="checkbox"/>	lon = 1A/5A ; 0.01-2 lon Vx = 90-240Vac/250Vdc	V11FB1N0N92N1NN11N
REL10042V <input type="checkbox"/>	lon = 1A/5A ; 0.05-12lon Vx = 24-60Vac/Vdc	V11FB1N3N91N1NN11N
REL10043V <input type="checkbox"/>	lon = 1A/5A ; 0.05-12lon Vx = 90-240Vac/250Vdc	V11FB1N3N92N1NN11N
Model A: 4 binary inputs, 8 binary outputs, rear RS485, front USB with powering, disturbance recorder		
REL10010V <input type="checkbox"/>	lon = 1A/5A ; 0.01-2 lon Vx = 24-60Vac/Vdc	V11FA1N0N91N1NN11N
REL10011V <input type="checkbox"/>	lon = 1A/5A ; 0.01-2 lon Vx = 90-240Vac/250Vdc	V11FA1N0N92N1NN11N
REL10012V <input type="checkbox"/>	lon = 1A/5A ; 0.05-12lon Vx = 24-60Vac/Vdc	V11FA1N3N91N1NN11N
REL10013V <input type="checkbox"/>	lon = 1A/5A ; 0.05-12lon Vx = 90-240Vac/250Vdc	V11FA1N3N92N1NN11N
Model E: 8 binary inputs; 6 binary outputs, rear RS485, front USB with powering, disturbance rec., auto reclose		
REL10050V <input type="checkbox"/>	lon = 1A/5A ; 0.01-2 lon Vx = 24-60Vac/Vdc	V11FE1N0N91N1NN11N
REL10051V <input type="checkbox"/>	lon = 1A/5A ; 0.01-2 lon Vx = 90-240Vac/250Vdc	V11FE1N0N92N1NN11N
REL10052V <input type="checkbox"/>	lon = 1A/5A ; 0.05-12lon Vx = 24-60Vac/Vdc	V11FE1N3N91N1NN11N
REL10053V <input type="checkbox"/>	lon = 1A/5A ; 0.05-12lon Vx = 90-240Vac/250Vdc	V11FE1N3N92N1NN11N
Accessories for VAMP 11F		
REL10030 <input type="checkbox"/>	Wall or surface mounting adaptor for standard Vamp 11 flush case	
REL10031 <input type="checkbox"/>	Secure front access cover for for standard Vamp 11 flush case	

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