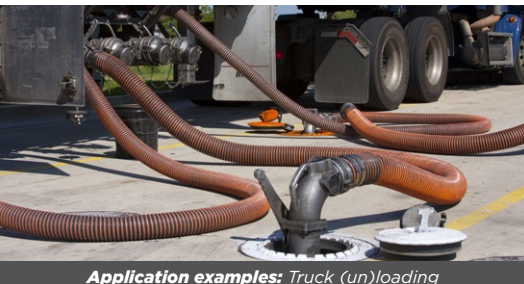


## Totalizer with receipt printer driver

linearization, analog and pulse outputs



Modbus



Application examples: Truck (un)loading



Extreme cold weather at polar regions



Proof of delivery with printed receipt

The E-Series provides unequalled safety and ease of use, opening the cover is history. The through-glass keypad enables operability without interruptions. The E-Series saves time, money and hassle and delivers user-friendliness in the toughest conditions.

### Advantages

- Configurable Totalizer / Delivery indicator with receipt printing function.
- Save time and gain flexibility with the easy-to-operate through glass keypad: no need to remove the front cover or to arrange a work permit.
- Intuitive "Know one, know them all!" configuration menu, saving time, cost and aggravation.
- Cost saving with an easy to install, spacious chamber, plug and play connectors and 1" NPT thread for flow meter mounting.
- Durable high grade stainless steel 316L Ex d enclosure for extremely salty atmospheres (offshore).

### Features

- Explosion proof according ATEX, IECEx, FM and CSA c-us.
- Displays flow rate, total, acc. total, daily total, previous day total, measuring units and a flow rate indicating speedometer.
- Bright LED backlight.
- Easy K-factor configuration for volumetric or mass.
- 15 point linearization of the flow curve - with interpolation.
- Ability to process all types of signals: Sine wave (coil), NAMUR, NPN/PNP pulse, Reed-switch, Active pulse signals, (O)4 - 20mA.
- Scaled pulse output according to linearized acc. total or unscaled pulse input retransmission.
- Loop powered 4-20mA output acc. linearized flow rate.
- Selectable Modbus communication / ticket printing.
- Power requirements: Loop powered, battery or 9 - 27V DC.
- Sensor supply: 8.2 / 12 / 24V DC.
- Auto backup of settings and running totals.
- Easy configurable via PC with free downloadable software.

## Introduction

The E119 is an advanced Totalizer with the unique function to send a "print receipt" command to a printer. The configurable ticket printing can be set for (daily) totals or delivery tickets. The E-series distinguishes itself by its quality and functionality driven European design and manufacturing. It is more than fulfilling the rules for explosion proof design, it is about safety during the daily operation. Often, the environment is much tougher than the explosion proof requirements demand. Thus dangerous conditions may be experienced due to a broken enclosure or a poorly made flame path. Ruggedness and reliability is where Fluidwell stands for and it is now available in a comprehensive well designed and purpose driven explosion proof flow rate indicator / totalizer.

## Configuration

The E-Series uses the highly appreciated configuration structure of our F-, D- and N-Series product lines. Each setting is clearly indicated with an alphanumeric description, which avoids confusing abbreviations. Once familiar with one E-series product, you will be able to program all models in all series without a manual. For example: an (intrinsically safe) F119 operates identical to an explosion proof E119 and has the same three buttons! In other words: know one, know them all.

## Operation

Operation is done via the optical, easy-to-operate, through glass keypad without having to remove the front cover. These optical keys can be disabled. For easy handheld configuration there are three mechanical push buttons on the bottom side of the display collar when the cover is removed. All settings are accessed via a simple operator menu that can be passcode protected.



## Display

The unique LCD display provides multiple flow data at a glance. The main information is displayed with 7 digits (12mm, 0.47") to show total or flow rate and 11 digits (7mm, 0.28"), which can be set to show flow rate and accumulated total. Current day total (daily total) and previous day total, both non resettable are available as well. The last 15 historical day totals are stored and can be displayed. On-screen engineering units are easily configured from a comprehensive selection, while different units for flow rate and total can be displayed simultaneously. The speedometer offers a quick impression of the actual flow rate. For good readings in full sunlight and darkness, the E119 is provided with a bright backlight. When battery powered the backlight is only operational after a keypad touch, to save battery life.

## Hazardous areas

The E-Series has been certified according ATEX, IECEx, FM and CSA c-us with an ambient temperature of -40°C to +70°C (-40°F to +158°F). For stainless steel 40°C to +67°C (-40°F to +153°F).

- The ATEX markings for gas and dust applications are:
  - Ex II 2 G Ex db IIC T6 Gb.**
  - Ex II 2 D Ex tb IIIC T85°C Db.**
- The IECEx markings for gas and dust applications are:
  - Ex db IIC T6 Gb.**
  - Ex tb IIIC T85°C Db.**
- The FM and CSA c-us markings are:
  - XP (Explosion-proof): Class I, Division 1, Groups A, B, C, D.**
  - DIP (Dust-Ignition-proof): Class II/III, Div. 1, Groups E, F & G.**
  - Class I, Zone 1, AEx d IIC T6 Gb, Zone 21, AEx tb IIIC T85°C Db.**



All info at a glance



Easy to install



Easy to program



Know one know them all!



Reliable



User-friendly

## Analog output

The linearized flow rate is transmitted with the galvanically isolated 4 - 20mA output signal. The E119 can even be loop powered via the isolated loop-current.

## Pulse outputs

A scaled pulse output is available according the linearized accumulated total. The unscaled pulse output retransmits the incoming pulse signal. The pulse length is user defined from 1msec up to 10 seconds. The output can be a passive NPN signal or a mechanical relay output.

## Power requirements

Several power inputs are possible to power the E119 and sensor. As standard, the E119 can be loop powered via the isolated, two-wire, analog output. The battery powered version with a long life lithium battery and the basic 9 - 27V DC can power the E119 including the backlight, but don't offer a real sensor supply. A real sensor supply of 8.2, 12 or 24V is optional available with type PD.

## Communication

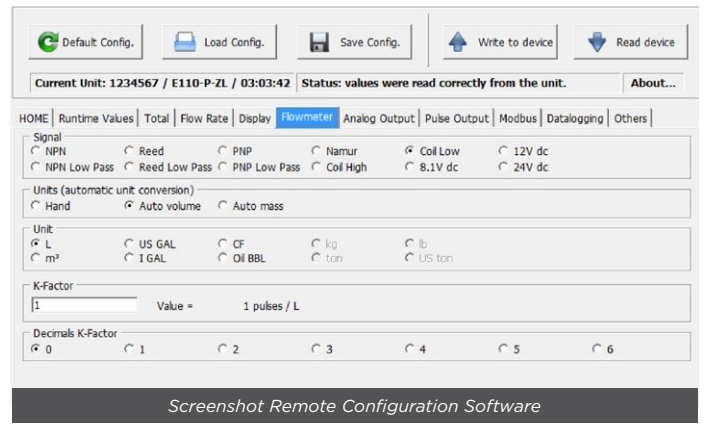
The "print receipt" command is processed through the ASCII data communication link (RS232 / RS485). When ticket printing is disabled, all process data and settings can be read and modified through the Modbus communication link.

## Enclosures

Two versions of our IP66/IP67, NEMA Type4X/7/9 explosion proof enclosures are available: a solid die cast aluminum or a high grade stainless steel 316L enclosure resistant to extremely salty atmospheres (offshore). A major advantage for the installation engineer is the spacious mid-chamber for the cable entry in combination with the plug-and-play connectors. Especially for straight flow meter mounting a 1" NPT connection is available (see page 5 for available NPT and Metric threads sizes).

## Remote configuration

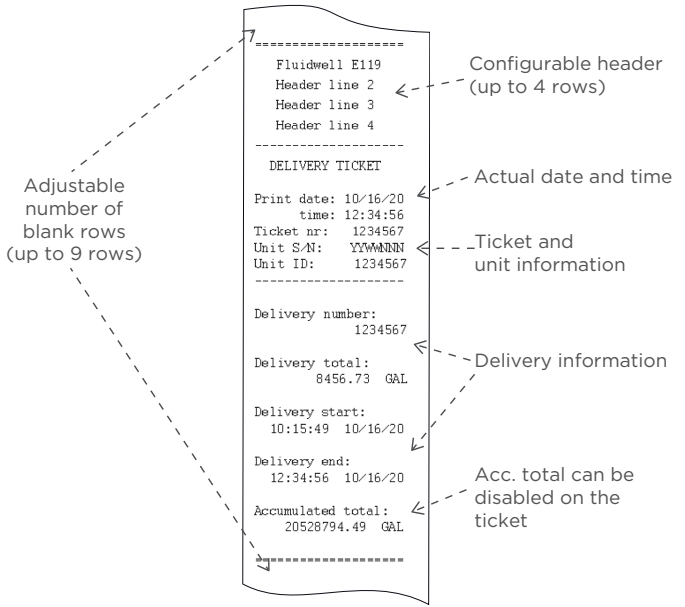
Even more user-friendly is the remote configuration via a PC using the free downloadable E-Series Configuration Software. Depending on your product, just connect the E-Series to your PC with the special Configuration Cable (ACE02) or use the Modbus communication cables (ACE06/07).



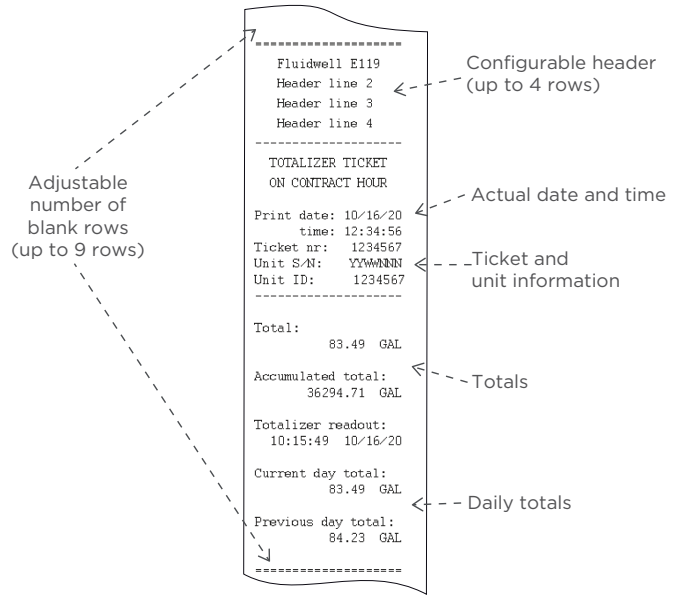
## Ticket printing

The configurable ticket printing can be set for (daily) totals or delivery tickets. When delivery mode is chosen, a ticket is printed when a delivery is ended by the "Clear"-button or via configurable remote control input. When totalizer mode is chosen, a ticket is printed at contract hour or with a print command by the keypad. Reprints are available in both print modes, they have an extra line at the ticket which shows [\* REPRINT \*] They can be reprinted with the configured remote control input.

### Delivery Ticket example

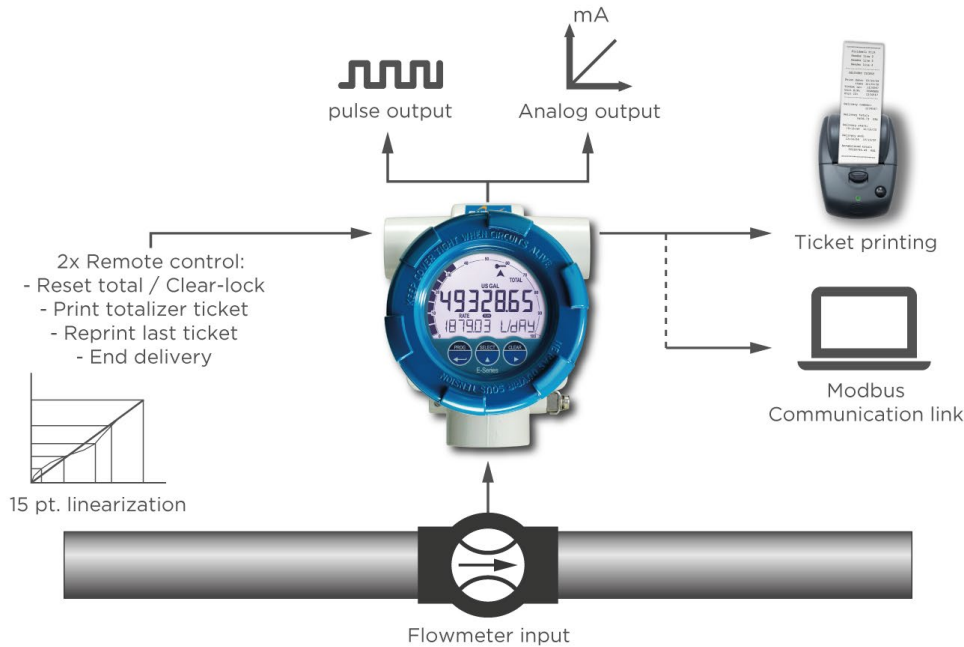


### Totalizer Ticket example



### Overview application E119

Flow measurement with mechanical flow meters where a precise calculation over the full measurement range is required. Or if re-transmission of the flow rate and/or totalizer functions or serial communication is desired. As well as the requirement tickets of deliveries and / or daily totals. The E119 offers you a flow rate indicator / totalizer designed to be used in rough and tough applications, beyond being just explosion proof. Its sturdy design and ease of use are unequalled by any other explosion proof indicator in the market! The E-Series is always your first and safest choice in explosion proof applications. For intrinsically safe applications we offer our field mount F-Series indicators.



### Signal input

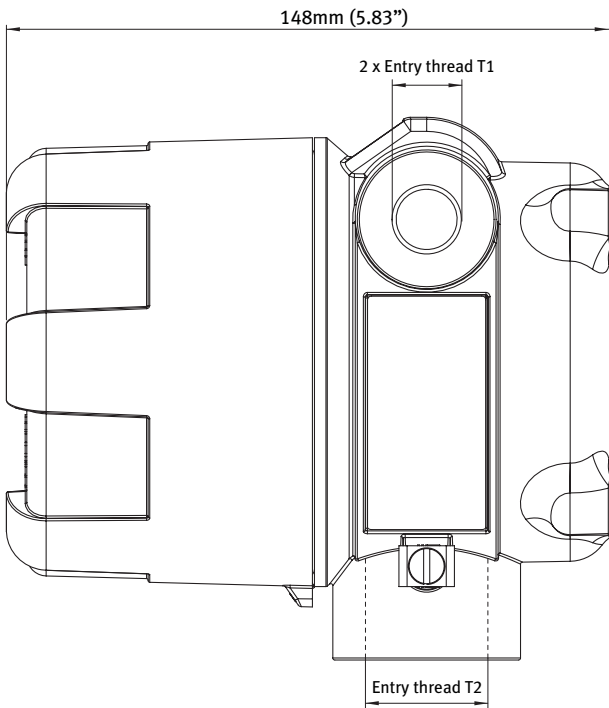
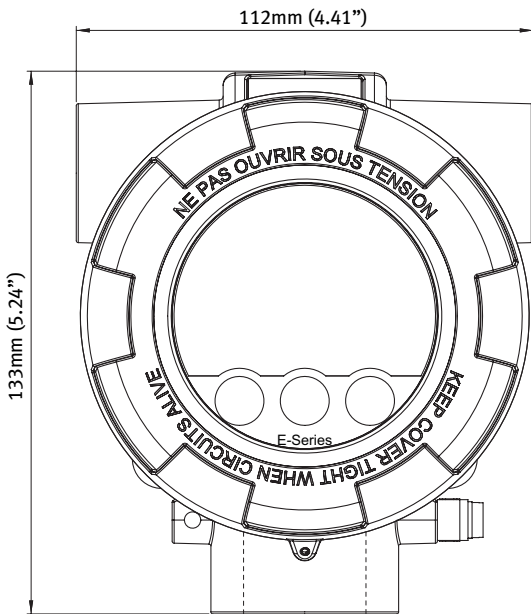
The E119 accepts most input signals for volume flow or mass flow meters. The input signal type can be selected in the configuration menu without having to adjust any sensitive mechanical dip-switches or jumpers. In addition to the average K-Factor, 15 linearization points can be entered with their frequencies or values. The unit will interpolate between these points greatly enhancing accuracy in any flow range.

| Type of signal    | Resistance     | Low Pass filter (LP) | Max. frequency           | Max. frequency Low Pass filter (LP) | Min. amplitude p-P | Remark                      |
|-------------------|----------------|----------------------|--------------------------|-------------------------------------|--------------------|-----------------------------|
| NPN               | 100kΩ pull-up  | 100kΩ pull-up        | 6kHz<br>Threshold 1.2V   | 2.2kHz                              |                    | Open collector              |
| REED              | 1MΩ pull-up    | 1MΩ pull-up          | 1.2kHz<br>Threshold 1.2V | 120Hz                               |                    |                             |
| PNP               | 51KΩ pull-down | 51KΩ pull-down       | 6kHz<br>Threshold 1.2V   | 700Hz                               |                    |                             |
| NAMUR             | 820Ω pull-down | -                    | 4kHz                     | -                                   |                    | External power required     |
| COIL LO           | -              | -                    |                          |                                     | 90mV <sub>pp</sub> | Default sensitivity         |
| COIL-HI           |                |                      |                          |                                     | 20mV <sub>pp</sub> | Sensitive for interference! |
| COIL-HI (Type ZF) | -              | -                    | -                        | -                                   | 10mV <sub>pp</sub> |                             |
| COIL-HI (Type ZG) |                |                      |                          |                                     | 5mV <sub>pp</sub>  |                             |
| ACTIVE 8.2V DC    | 3K9Ω           |                      | 10kHz<br>Threshold 4V    |                                     |                    | External power required     |
| ACTIVE 24V DC     | 3KΩ            |                      | 10kHz<br>Threshold 12V   |                                     |                    | External power required     |



### Dimensions enclosures

Aluminum & Stainless Steel 316L enclosure



### Enclosure types

|          |                                      |
|----------|--------------------------------------|
| Type HA_ | Aluminum Ex d enclosure.             |
| Weight   | 1300 gr.                             |
| Type HS_ | Stainless steel 316L Ex d enclosure. |
| Weight   | 3600 gr.                             |

### Enclosure drillings

|          |                                   |
|----------|-----------------------------------|
| Type H_A | T1: 2 x 3/4"NPT / T2: 1 x 1"NPT   |
| Type H_B | T1: 2 x 3/4"NPT / T2: 1 x 3/4"NPT |
| Type H_C | T1: 2 x 1/2"NPT / T2: 1 x 1"NPT   |
| Type H_D | T1: 2 x 1/2"NPT / T2: 1 x 3/4"NPT |
| Type H_G | T1: 2 x M20 / T2: 1 x M25         |
| Type H_H | T1: 2 x M25 / T2: 1x M25          |

### Terminal connections

#### Main Electronics Module

POWER REQUIREMENTS PULSE OUTPUT



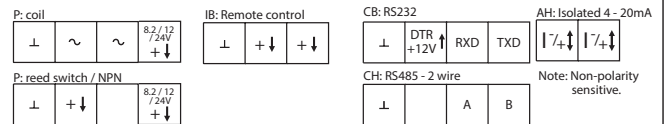
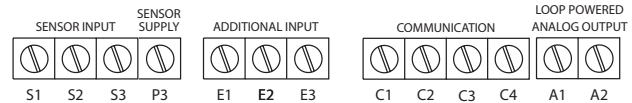
PD: 9 - 27V DC OT: passive transistor output



PX: 9 - 27V DC



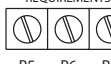
PB: battery powered  
(PX is standard available: if supply PX/PD is connected, the battery supply will be switched off automatically.)



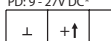
Note: The sensor supply (P3) is only available with PD.

#### Supply Module

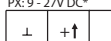
POWER REQUIREMENTS



PD: 9 - 27V DC\*

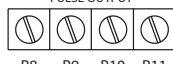


PX: 9 - 27V DC\*

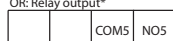


\* Type OR requires 24 - 27V DC and power supply via P5-P6, instead of P1-P2

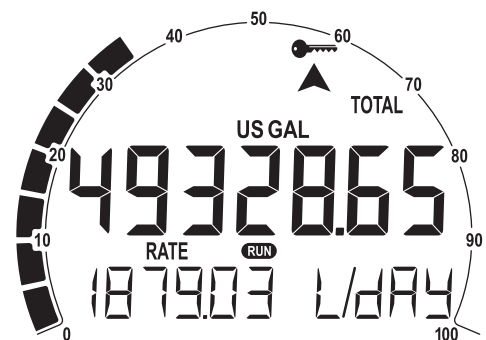
PULSE OUTPUT



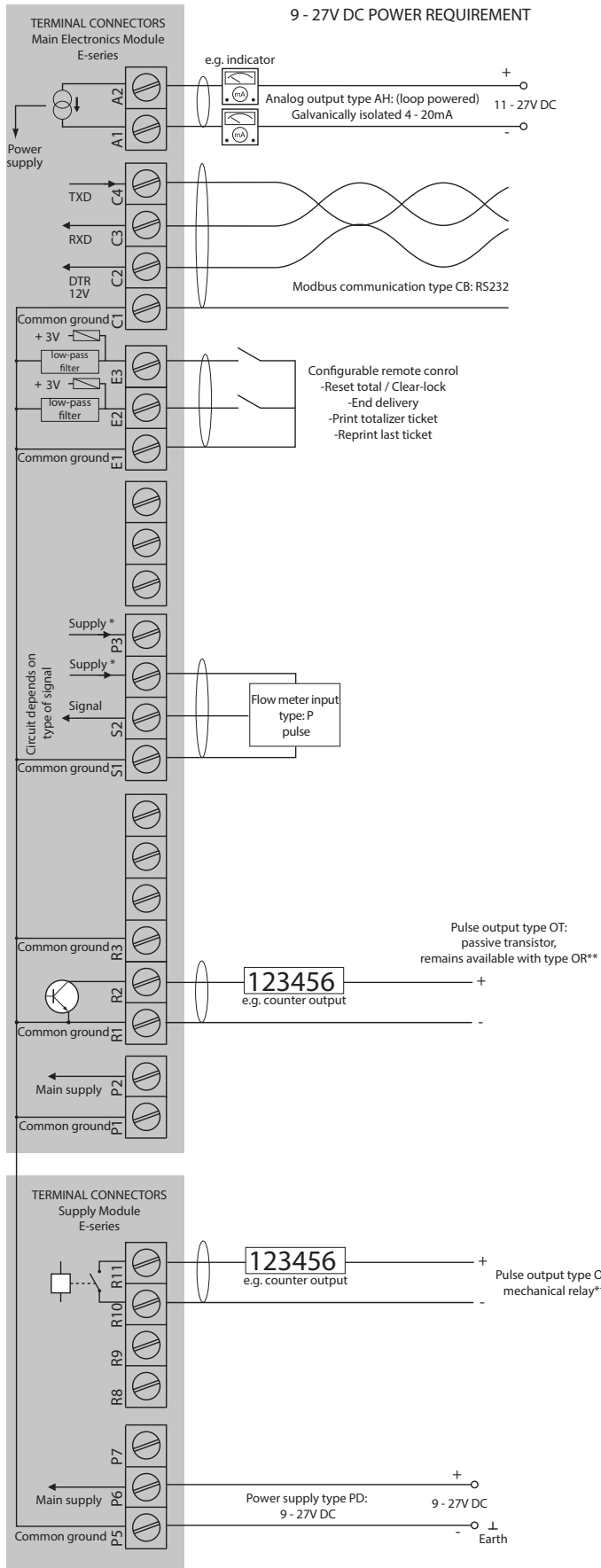
OR: Relay output\*



### Display example totalizer

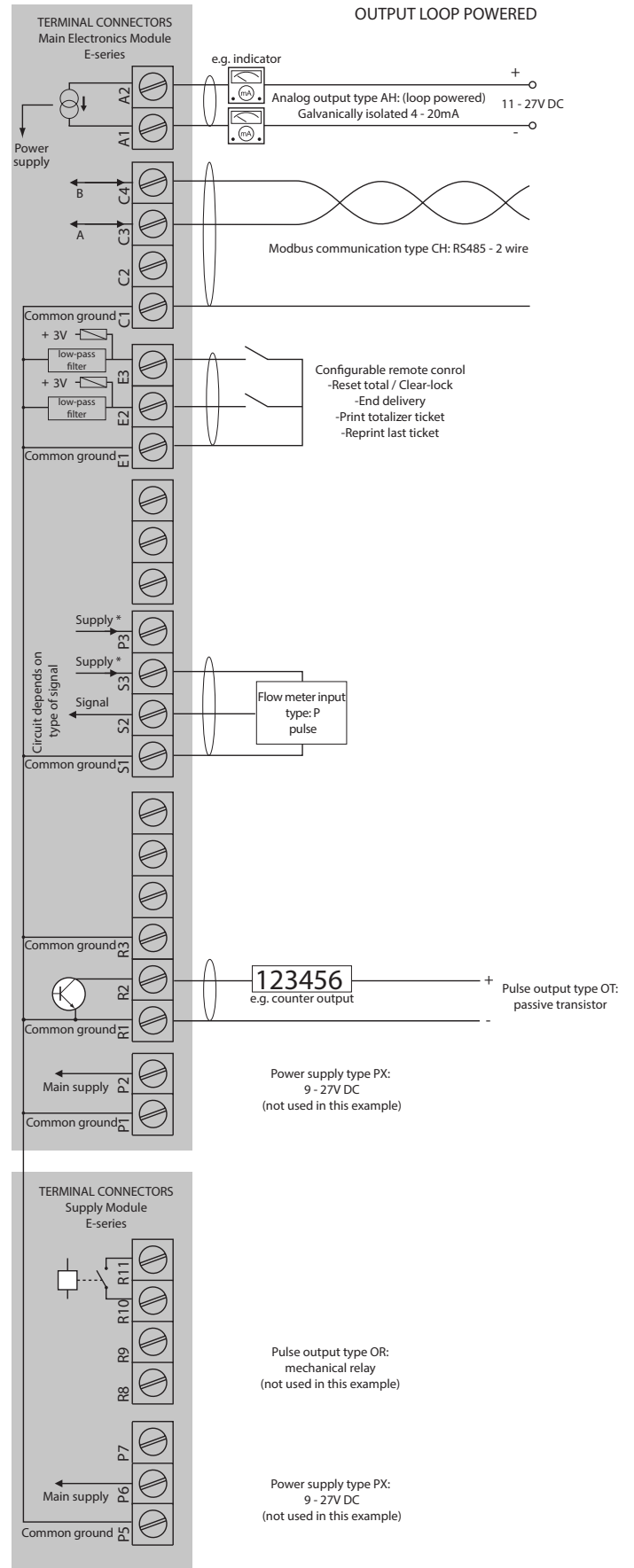


## E119-P-AH-CB-IR-OR-PD-XD-ZB



\* Supply voltage P3: 8.2 / 12 / 24V DC to sensor  
 \*\* Type OR requires 24 - 27V DC and power supplied via P5-P6, instead of P1-P2

## E119-P-AH-CH-IR-OT-PX-XD-ZB



\*Supply voltage S3: 3V DC to sensor

## Display

|                     |  |
|---------------------|--|
| <b>Type</b>         | High intensity transfective numeric and alphanumeric LCD, UV-resistant, with bright backlight. Intensity can be adjusted via the keypad. |
| <b>Note</b>         | When battery powered, the backlight is only operational after a keypad touch, to extend battery lifetime.                                |
| <b>Dimensions</b>   | Ø 65 x 45mm (2.56" x 1.77").   |
| <b>Digits</b>       | Seven 12mm (0.47") and eleven 7mm (0.28") digits. Various symbols and measuring units.   |
| <b>Refresh rate</b> | User definable: 8 times/sec. - 30 secs.  |
| <b>Speedometer</b>  | To indicate the actual flow rate the bargraph runs from 0 to 100% in 20 blocks, each block is 5%.  |

## Operating temperature

|                    |                                   |
|--------------------|-----------------------------------|
| <b>Ambient HA_</b> | -40°C to +70°C (-40°F to +158°F). |
| <b>Ambient HS_</b> | -40°C to +67°C (-40°F to +153°F). |

## Power requirements

|                |   |
|----------------|---|
| <b>Type PB</b> | Long life Lithium battery - life-time depends upon settings and configuration - up to approx. 3 years.  |
| <b>Note PB</b> | The battery can power the backlight for a short time after a keypad touch but cannot power the relay output (OR) or the real sensor supply (Terminal P3). |
| <b>Type PD</b> | 9 - 27V DC. Consumption max. 4.5 Watt.  |
| <b>Type PX</b> | 9 - 27V DC. Consumption max. 3 Watt.  |
| <b>Type AH</b> | Loop powered, analog output. 11 - 27V DC, Min. 3.5mA. Consumption max. 675mW (25mA @ 27VDC)   |
| <b>Note AH</b> | The loop powered analog output cannot power the backlight, mechanical relay output (OR) or the real sensor supply (Terminal P3).                          |

## Sensor excitation

|                      |   |
|----------------------|---|
| <b>Type AH/PB/PX</b> | Terminal S3: 3V DC for pulse signals and 1.2V DC for coil pick-up, I <sub>out</sub> max. 100µA.   |
| <b>Note AH/PB/PX</b> | This is not a real sensor supply. Only suitable for sensors with a very low power consumption like coils (sine wave) and reed-switches.   |
| <b>Type PD</b>       | Terminal P3: 8.2 / 12 / 24V DC<br>8.2V DC, I <sub>out</sub> max. 20mA.<br>12V DC, I <sub>out</sub> max. 30mA.<br>24V DC, I <sub>out</sub> max. 75mA (this voltage varies depending on the input supply voltage) |

## Terminal connections

|             |   |
|-------------|---|
| <b>Type</b> | Removable plug-in terminal strip. Wire max. 1.5mm <sup>2</sup> and 2.5mm <sup>2</sup> . |
|-------------|---|

## Data protection

|                 |   |
|-----------------|---|
| <b>Type</b>     | EEPROM backup of all settings. Backup of running totals every minute. Data retention at least 10 years. |
| <b>Password</b> | Configuration settings and clear total can be password protected.                                       |

## Directives & Standards

|                      |   |
|----------------------|---|
| <b>EMC</b>           | Directive 2014/30/EU, FCC 47 CFR part 15.                     |
| <b>Low voltage</b>   | Directive 2014/35/EU  |
| <b>RoHS</b>          | Directive 2011/65/EU  |
| <b>ATEX / IECEx</b>  | Directive 2014/34/EU, IEC 60079-0, IEC 60079-1, IEC 60079-31. |
| <b>FM</b>            | Class 3600, 3615, 3616, 3810.                                 |
| <b>CSA</b>           | CSA 22.2 No. 25, No. 30, No. 61010-1-12.                      |
| <b>UL</b>            | UL 61010-1.   |
| <b>IP &amp; NEMA</b> | EN 60529 & NEMA 250.  |

## Hazardous area - Explosion proof

|  |   |
|--|---|
| <b>ATEX certification</b>              | Gas:  II 2 G Ex db IIC T6 Gb.   |
| <b>IECEX certification</b>             | Dust:  II 2 D Ex tb IIIC T85°C Db.  |
| <b>FM &amp; CSA c-us certification</b> | Gas: Ex db IIC T6 Gb.<br>Dust: Ex tb IIIC T85°C Db.   |
|  | Class I, Div. 1, Grps A, B, C, D.<br>Class II/III, Div. 1, Grps E, F, & G.<br>Class I, Zone 1, AEx d IIC T6 Gb,<br>Zone 21, AEx tb IIIC T85°C Db. |

## Enclosure - General

|                         |   |
|-------------------------|---|
| <b>Window</b>           | Glass window.   |
| <b>Sealing</b>          | Silicone.   |
| <b>Control keys</b>     | Three infra-red keys with operation through the glass front window. |
| <b>Rating</b>           | IP66, IP67 / NEMA Type4X / Type7 / Type9.                           |
| <b>Dimensions</b>       | 112 x 133 x 148mm (4.41" x 5.24" x 5.83") - W x H x D.              |
| <b>Mounting threads</b> | 4 x M6 at the backside of the enclosure.                            |

## Enclosure - Types

|                 |                                      |
|-----------------|--------------------------------------|
| <b>Type HA_</b> | Aluminum Ex d enclosure.             |
| <b>Weight</b>   | 1550 gr. (3.41 lbs).                 |
| <b>Type HS_</b> | Stainless steel 316L Ex d enclosure. |
| <b>Weight</b>   | 3600 gr. (9.65 lbs).                 |

## Enclosure - Drillings

|                 |  |
|-----------------|--|
| <b>Type H_A</b> | Entry threads: 2 x 3/4"NPT / 1 x 1"NPT   |
| <b>Type H_B</b> | Entry threads: 3 x 3/4"NPT               |
| <b>Type H_C</b> | Entry threads: 2 x 1/2"NPT / 1 x 1"NPT   |
| <b>Type H_D</b> | Entry threads: 2 x 1/2"NPT / 1 x 3/4"NPT |
| <b>Type H_G</b> | Entry threads: 2 x M20 / 1 x M25         |
| <b>Type H_H</b> | Entry threads: 3 x M25                   |

## General E-Series accessories

|              |  |
|--------------|--|
| <b>ACE02</b> | Remote configuration cable for type CX.                |
| <b>ACE03</b> | Stainless steel wall mounting kit (inc. screws+plugs). |
| <b>ACE04</b> | Stainless steel pipe mounting kit.                     |
| <b>ACE05</b> | 2 pins, 30cm (12") cable with Amphenol connector.      |
| <b>ACE06</b> | Remote configuration cable (1.8m/5.9ft) for type CH.   |
| <b>ACE07</b> | Remote configuration cable (1.8m/5.9ft) for type CB.   |

## Signal inputs - Flowmeter

|                        |  |
|------------------------|--|
| <b>Type P</b>          | Coil / sine wave (HI: 20mVpp or LO: 90mVpp - sensitivity selectable), NPN/PNP, reed switch, Namur, active pulse signals 8 or 24V DC.   |
| <b>Frequency</b>       | Minimum 0Hz - maximum 10kHz for total and flow rate. Maximum frequency depends on signal type and internal low-pass filter. E.g. reed switch with low-pass filter: max. frequency 120Hz. |
| <b>K-Factor</b>        | 0.000010 - 9,999,999 with variable decimal position.   |
| <b>Low-pass filter</b> | Available for all pulse signals.   |
| <b>Option ZF</b>       | coil sensitivity 10mVpp.   |
| <b>Option ZG</b>       | coil sensitivity 5mVpp.  |

## Signal inputs - Remote control input

|                 |   |
|-----------------|---|
| <b>Function</b> | <ul style="list-style-type: none"> <li>Terminal input to reset total remotely or to lock the "clear total" button.</li> <li>End delivery.</li> <li>Print totalizer ticket.</li> <li>Reprint last ticket.</li> </ul> |
| <b>Type IR</b>  | 2x Internally pulled-up switch contact - NPN.   |
| <b>Duration</b> | Minimum pulse duration 100msec.   |

## Signal outputs - Digital output

|                        |  |
|------------------------|--|
| <b>Function</b>        | <ul style="list-style-type: none"> <li>Scaled pulse output - transmitting acc. total.</li> <li>Input pulse retransmission (squared, OT only).</li> </ul>                               |
| <b>Frequency</b>       | Max. 500Hz. Pulse length user definable between 1msec up to 10 seconds. Retransmission: Minimum pulse duration: 50µs, square wave.   |
| <b>Type OR</b>         | One isolated electro-mechanical relay output (NO). Max. resistive load: 1A @ 250V AC / 30V DC. Maximum inductive load: 0,5A (pilot duty applications). Type OT remains also available. |
| <b>Restrictions OR</b> | Requires 24 - 27V DC and supplied via P5 - P6. Frequency max. 0.5Hz.   |
| <b>Type OT</b>         | One passive transistor output (NPN) - not isolated. 300mA - 50V @ 25°C.  |

## Signal outputs - Communication option

|                   |  |
|-------------------|--|
| <b>Function</b>   | <ul style="list-style-type: none"> <li>Reading display info, clear total, read/write configuration settings and data log extraction.</li> <li>Ticket printing on demand (delivery).</li> <li>Ticket printing of daily totals, at contract hour.</li> </ul> |
| <b>Protocol</b>   | Modbus ASCII (printer)<br>Modbus ASCII / RTU (communication).  |
| <b>Speed</b>      | 1200 - 2400 - 4800 - 9600 - 19200 - 38400.   |
| <b>Addressing</b> | 1 - 247.   |
| <b>Type CB</b>    | RS232  |
| <b>Type CH</b>    | RS485 2-wire   |
| <b>Type CX</b>    | No communication, remote configuration possible with accessory cable ACE02.  |

## Signal outputs - Analog output

|                 |  |
|-----------------|--|
| <b>Function</b> | Transmitting flow rate.  |
| <b>Type AH</b>  | Galvanically isolated, loop powered 4 - 20mA output  |
| <b>Accuracy</b> | 12 bit. Error 0.03% @ 20°C (Typical 45ppm/°C). Output signal can be scaled to any desired range. |

## Operator functions

|                       |  |
|-----------------------|--|
| <b>Displayed info</b> | <ul style="list-style-type: none"> <li>Linearized flow rate and / or total.</li> <li>Linearized total and accumulated total.</li> <li>Current day (daily) total and previous day</li> <li>The last 15 historical day totals are stored and can be displayed.</li> <li>Indicating speedometer for flow rate.</li> <li>Total can be reset to zero by pressing the CLEAR-key twice.</li> <li>Ticket printing on demand by pressing the keys.</li> </ul> |
|-----------------------|--|

## Remote configuration

|                 |   |
|-----------------|---|
| <b>Function</b> | Easy remote configuration via our free downloadable software and a special communication cable. |
| <b>Type CB</b>  | Requires ACE07 cable with RS232 to USB plug.  |
| <b>Type CH</b>  | Requires ACE06 cable with RS485 to USB plug.  |
| <b>Type CX</b>  | Requires ACE02 cable for option CX to USB plug.   |

## Total

|                 |   |
|-----------------|---|
| <b>Digits</b>   | 7 digits.   |
| <b>Units</b>    | L, m <sup>3</sup> , US gal, igan, cf, Oil bbl, kg, ton, US ton, lb or none. |
| <b>Decimals</b> | 0 - 1 - 2 or 3.   |
| <b>Note</b>     | Total can be reset to zero.   |

## Accumulated total

|                         |                                   |
|-------------------------|-----------------------------------|
| <b>Digits</b>           | 11 digits.                        |
| <b>Units / decimals</b> | According to selection for total. |
| <b>Note</b>             | Can not be reset to zero.         |

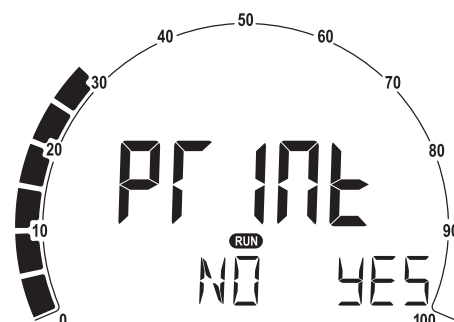
## Flow rate

|                   |   |
|-------------------|---|
| <b>Digits</b>     | 7 digits.   |
| <b>Units</b>      | mL, L, m <sup>3</sup> , mg, g, kg, ton, US ton, US gal, igan, Oil bbl, lb, cf, rev, none, scf, nm <sup>3</sup> , nL or p. |
| <b>Decimals</b>   | 0 - 1 - 2 or 3.   |
| <b>Time units</b> | /sec - /min - /hr - /day.   |

## Printer ordering information

|              |  |
|--------------|--|
| <b>ACP01</b> | Ap 1300 - Thermal portable printer (incl. cables and battery charger).                     |
| <b>ACP02</b> | Ap 1400 - Thermal panel printer with standard 9V DC to 36V DC power supply (incl. cables). |
| <b>ACP03</b> | Ap 1400 - Thermal panel printer with external 100 - 240V AC power supply (incl. cables).   |

## Display example ticket printing





|                |             | Description   |
|----------------|-------------|---|
| Model          | <b>E119</b> | <b>Totalizer with receipt printer driver linearization, analog and pulse outputs</b>                          |
| Input          | <b>P</b>    | <b>Pulse input: coil, npn, pnp, namur.</b>  |
| Analog output  | <b>AH</b>   | <b>Galvanically isolated, loop powered 4-20mA output.</b>   |
| Comm.          | CB          | RS232 communication - Modbus ASCII / RTU.   |
|                | CH          | RS485 communication - 2wire - Modbus ASCII / RTU.   |
|                | <b>CX</b>   | <b>No communication, remote configuration is possible.</b>  |
| Enclosures     | <b>HA_</b>  | <b>Die-cast aluminum Ex d enclosure.</b>  |
|                | HS_         | Stainless steel 316L Ex d enclosure.  |
|                | <b>H_A</b>  | <b>Entry threads: 2 x 3/4"NPT / 1 x 1"NPT.</b>  |
|                | H_B         | Entry threads: 3 x 3/4"NPT.   |
|                | H_C         | Entry threads: 2 x 1/2"NPT / 1 x 1"NPT.   |
|                | H_D         | Entry threads: 2 x 1/2"NPT / 1 x 3/4"NPT.   |
|                | H_G         | Entry threads: 2 x M20 / 1 x M25.   |
|                | H_H         | Entry threads: 3 x M25.   |
| Additional     | <b>IR</b>   | <b>Remote control input to reset total, to lock the "clear total" button, end delivery or print a ticket.</b> |
| Digital output | OR          | Mechanical relay output (OT remains available) - requires 24 - 27V DC.  |
|                | <b>OT</b>   | <b>Passive transistor output.</b>   |
| Power          | PD          | 9 - 27V DC + sensor supply.   |
|                | <b>PX</b>   | <b>Basic power supply 9 - 27V DC (no real sensor supply).</b>   |
| Battery        | PB          | Additional lithium battery powered (optional).  |
| Hazardous      | <b>XD</b>   | <b>Explosion proof according ATEX, IECEx, FM and CSA c-us.</b>  |
| Options        | <b>ZB</b>   | <b>Backlight is included as standard.</b>   |
|                | ZF          | Coil input 10mVpp.  |
|                | ZG          | Coil input 5mVpp.   |

The **bold** marked text contains the standard configuration: E119-P-AH-CX-HAA-IR-OT-PX-XD-ZB.

\*Contact us for latest specifications.