

## Comparison: F110/F112 vs F103 WP

The intrinsically safe F110 or F112 Flow rate Indicator / Totalizer and the weatherproof F103 Flow Logger / Totalizer are all suitable for hazardous area applications. They have typical approvals, features and various options available. The following tabel shows the most important similarities and differences of these products.

	F110 / F112	F103 WP
<b>Hazardous area Certification</b>	<b>ATEX / IECEx Intrinsically Safe</b> <b>Gas:</b> II 1 G Ex ia IIB/IIC T4 Ga. <b>Dust:</b> II 1 D Ex ia IIIC T100 °C Da.	<b>CSA c-us Non-Incendive</b> Class I, Division 2, Grps A/D T5
<b>Safe area according CE</b>	Yes	Yes
<b>Display info</b>	Flow rate, total and accumulated total	Flow rate, total, accumulated total, current day total (daily total) and 15 historical (previous) day totals
<b>Data logging</b>	not available	600 daily logs 1500 interval logs ( <i>configurable</i> ) 724 event logs
<b>Log data</b>	not available	Flow rate total at contract hour accumulated total date / time stamp log number
<b>Free configuration software</b>	not available	Yes, downloadable
<b>Quick set-up menu</b>	not available	Yes, with most often used settings
<b>Housing Classification</b>	IP67 / NEMA Type4X	Weatherproof Type 4X / IP67
<b>Housing material</b>	Glass reinforced polymer (GRP), aluminum or stainless steel 316L	Glass reinforced polymer (GRP), aluminum or stainless steel 316L
<b>Size / weight (GRP)</b>	5.1" x 4.7" x 2.9" 130 x 120 x 75mm 1.5lb / 0.7kg	5.1" x 4.7" x 2.9" 130 x 120 x 75mm 1.5lb / 0.7kg
<b>Display size</b>	3.5" x 1.6" 90 x 40mm	3.5" x 1.6" 90 x 40mm
<b>Measurement units for Total / Daily totals</b>	L, m <sup>3</sup> , GAL, USGAL, kg, lb, bbl or no unit.	L, m <sup>3</sup> , US gal, igal, cf, Oil bbl, kg, ton, US ton, lb, nL, nm <sup>3</sup> or no unit.
<b>Measurement units for Flow rate</b>	mL, L, m <sup>3</sup> , Gallons, kg, Ton, lb, bl, cf, RND, ft <sup>3</sup> , scf, Nm <sup>3</sup> , NI, igal - no units. /sec, /min, /hr, /day	mL, L, m <sup>3</sup> , mg, g, kg, ton, US ton, US gal, igal, Oil, bbl, lb, cf, rev, none, scf, nm <sup>3</sup> , nL or p. /sec, /min, /hr, /day

# F 103 Flow logger



Your success counts

## F110 / F112

## F103 WP

<b>Nr. of digits for Total / Daily totals</b>	7 digits of 0.67" / 17mm	7 digits of 0.67" / 17mm
<b>Nr. of digits for Accumulated total</b>	11 digits of 0.31" / 8mm	11 digits of 0.31" / 8mm
<b>Nr. of digits for Flow rate</b>	7 digits of 0.31" / 8mm	7 digits of 0.31" / 8mm
<b>Data protection</b>	Settings and totals are automatically stored	Settings and totals are automatically stored
<b>Ambient temperature</b>	-40°F to 158°F (-40°C to 70°C)	-40°F to 158°F (-40°C to 70°C)
<b>Inputs</b>	Turbine meter input (Coil), NAMUR, NPN/PNP pulse, Reed-switch, Active pulse signals, (O)4-20mA	Turbine meter input (Coil), Isolated pulse input 3-30V DC max. 7kHz, NPN, PNP, Reed
<b>Coil input sensitivity</b>	20 - 80mVpp (10mVpp optional)	20 - 80mVpp
<b>Input linearization</b>	<b>F110:</b> not available <b>F112:</b> 15 points	15 points
<b>Smart K-factor configuration</b>	not available	Simple setup for volumetric and mass flow
<b>Reset total</b>	By keypad, Optional ext. push button, Modbus Communication	By keypad, ext. push buttons (isolated & non-isolated), Modbus Communication
<b>Digital outputs</b>	1 x Scaled pulse (500Hz), (passive NPN, active PNP or isolated electro-mechanical relay)	1 x Scaled pulse (500Hz), 1 x Isolated scaled pulse (50Hz) and 1 x Unscaled pulse (Amp & Square)
<b>Analog output</b>	Passive loop powered, active, I.S. floating or isolated.	Galvanically isolated, Loop powered
<b>Communication</b>	Modbus RS485 / RS232 / Intrinsically Safe TTL	Modbus RS485, Free configuration software
<b>Power requirements</b>	Lithium battery, Isolated loop-powered 4 - 20mA, 8 - 30V DC, 8 - 24V AC/DC, 115 - 230V AC.	Lithium battery, Isolated loop-powered 4 - 20mA, 6 - 30V DC
<b>Sensor supply</b>	3 / 8.2 / 12 / 24V DC	3V DC (CSA) 8.2 / 12 / 24V DC (safe area)
<b>Options</b>	Backlight	Conduit hub entry Backlight

