

Landis+Gyr domestic single phase meter for residential AMR/AMM applications



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**Mini-Flex Meter ⇒
ZCF100**



Mini-Flex Meter \Rightarrow ZCF100 Device Concept

Proven Technology

The Device Concept bases on the proven and successful Modular Approach of the poly phase Flex Meter ZxF100



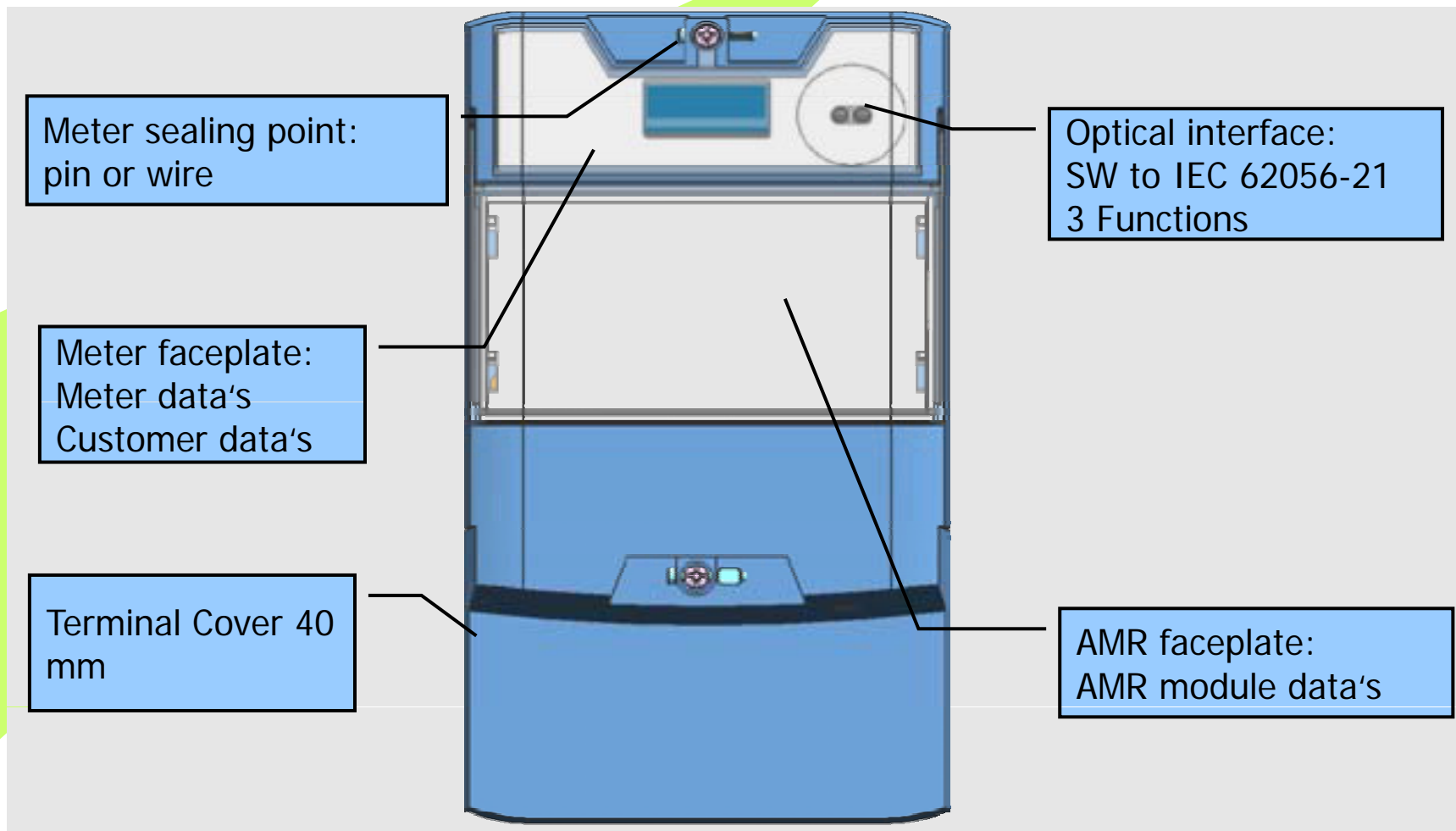
Re-Use of existing Components

Possible reuse of the PCBA of the poly phase Flex Meter ZxF100 modules.



Mini-Flex Meter ⇒ ZCF100

Meter overview (I)



Mini-Flex Meter \Rightarrow ZCF100

Main Functionality

Main Electrical Specification/ Technology

- Direct connected, Class 1.0/2.0, acc. EN 62052-11, EN 62053-11
- Base current 5, 10, 20, 40 A; max. current 80A
- Nominal voltage U_n 220..240Vac; line frequency 50 Hz.
- 12kV impulse voltage acc. SP-method 1618
- operating temperature range $-40^{\circ}\text{C} \dots +70^{\circ}\text{C}$

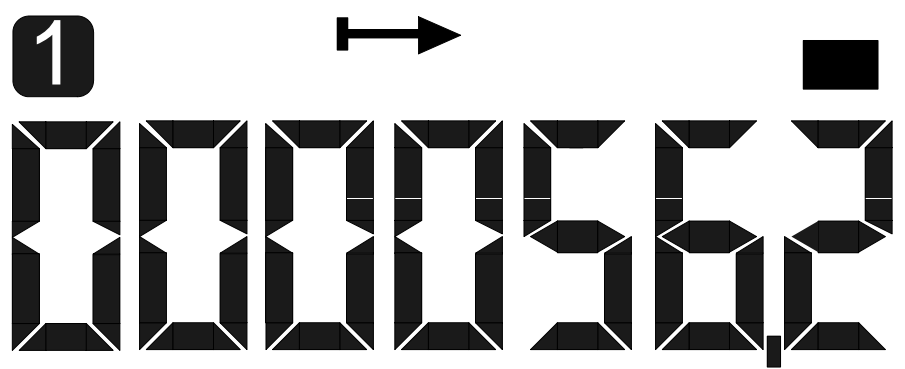
Metering/ Registration

- 2 tariff (HT/LT) registers
3 total registers (forward total, reverse total, combined total)
Internal register resolution 6.3 (888888.888) [kWh], also available at the AMR Interface

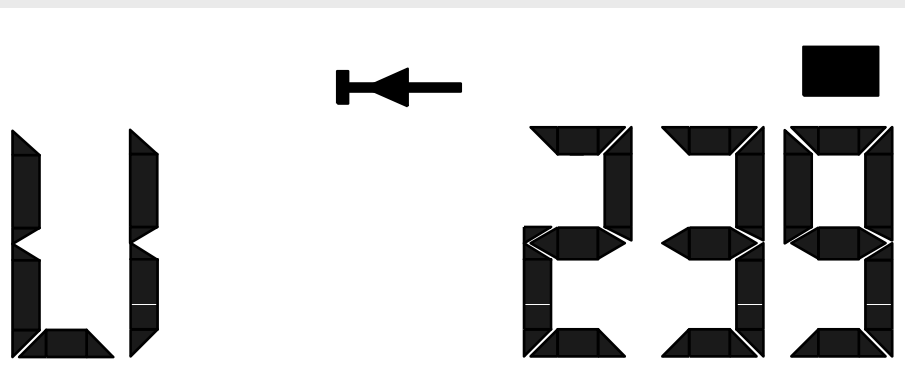


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Display Layout / Definitions



This display shows the value of the Rate 1 register, value of 56.2 kWh. Rate 2 is active and the net energy flow is import (energy consumption).



This display shows the line voltage L. Rate 2 is active and the net energy flow is export (energy delivery).

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Display Settings

Start-up Mode

Duration

30 min. 60min.

Display resolution

5+2: 88888,88

6: 888888

6+1: 888888,8

Display list	Time [s]	Sequence
Rate register 1	5	1
Rate register 2	5	2
Forward total		
Reverse total	10	4
Combined total		
Segment ON test	2	3
Segment OFF test		
Dial test (1+3)		
Line voltage L1	5	5

Normal Mode

Display resolution

5+2: 88888,88

6: 888888

6+1: 888888,8

Display list	Time [s]	Sequence
Energy Tariff 1	10	1
Energy Tariff 2	10	2
Forward total		
Reverse total		
Combined total		
Segment ON test	2	3
Segment OFF test		
Dial test (1+3)		

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Data Readout 62056-21 mode C according IEC

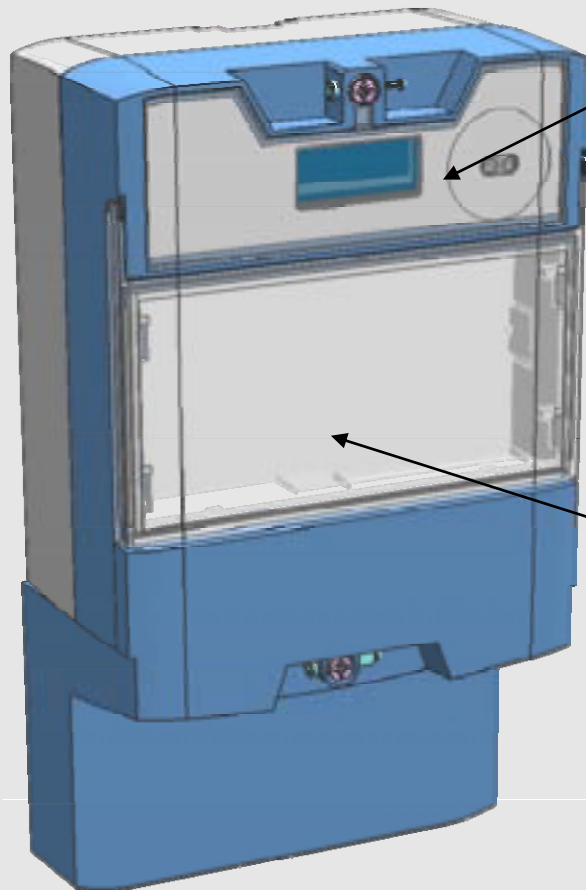
OBIS	Data readout List	Pos.
F.F	Error code	1
C.1.0	Meter ID	2
0.0	Customer ID	
C.1.1	Manufacturer ID	
1.8.1	Rate Register 1	
1.8.2	Rate Register 2	
1.8.0	Forward total	
2.8.0	Reverse total	
15.8.0	Combined total	
C.7.0	Nbre of tot losses of power	
32.7	Line voltage L1	
C.5.0	Status flag ¹⁾	n
	End of list	

Data Readout	
<i>Identified by OBIS codes</i>	
Register resolution	
<input type="checkbox"/> 6:	888888
<input type="checkbox"/> 6.1:	888888,8
<input type="checkbox"/> 6.2:	888888,88
<input checked="" type="checkbox"/> 6.3:	888888,888

Bit	¹⁾ Status flag
1	Reverse Detect
2	Creep flag
3	L1 phase fail flag
4	reserve
4	reserve
5	Active rate
6	(Rate setting test bit)
7	Factory test mode

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Deliverable



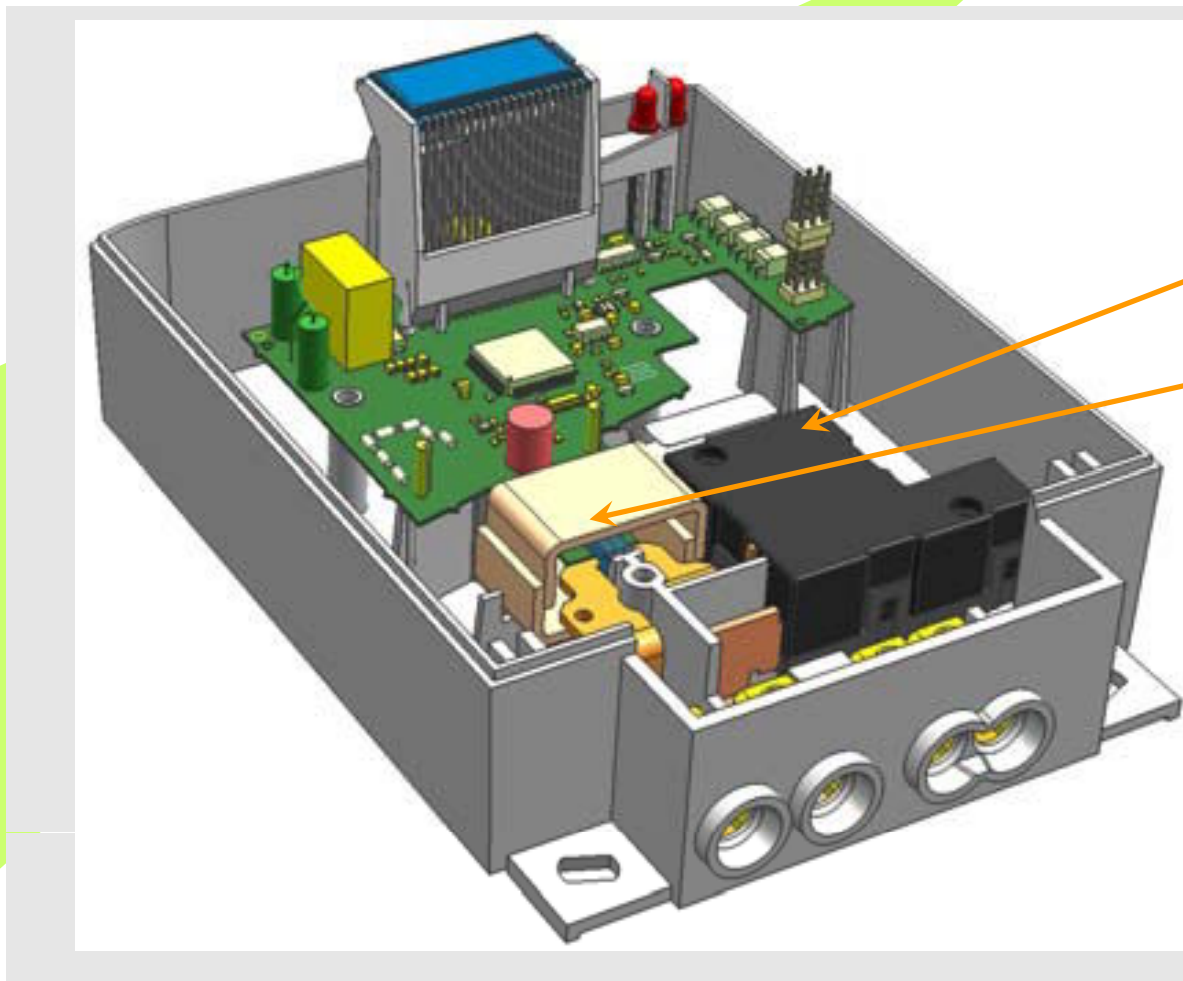
Mass product for DIN markets

- Metrologically approved
- Delivers:
 - configured data for standard application
 - Raw data's for future applications

AMR/AMM Module

- Not part of metrological approval
- Customised communication
- Delivers:
 - Data for customised applications

Mini-Flex Meter \Rightarrow ZCF100 Complete ZCF100AB (with options)

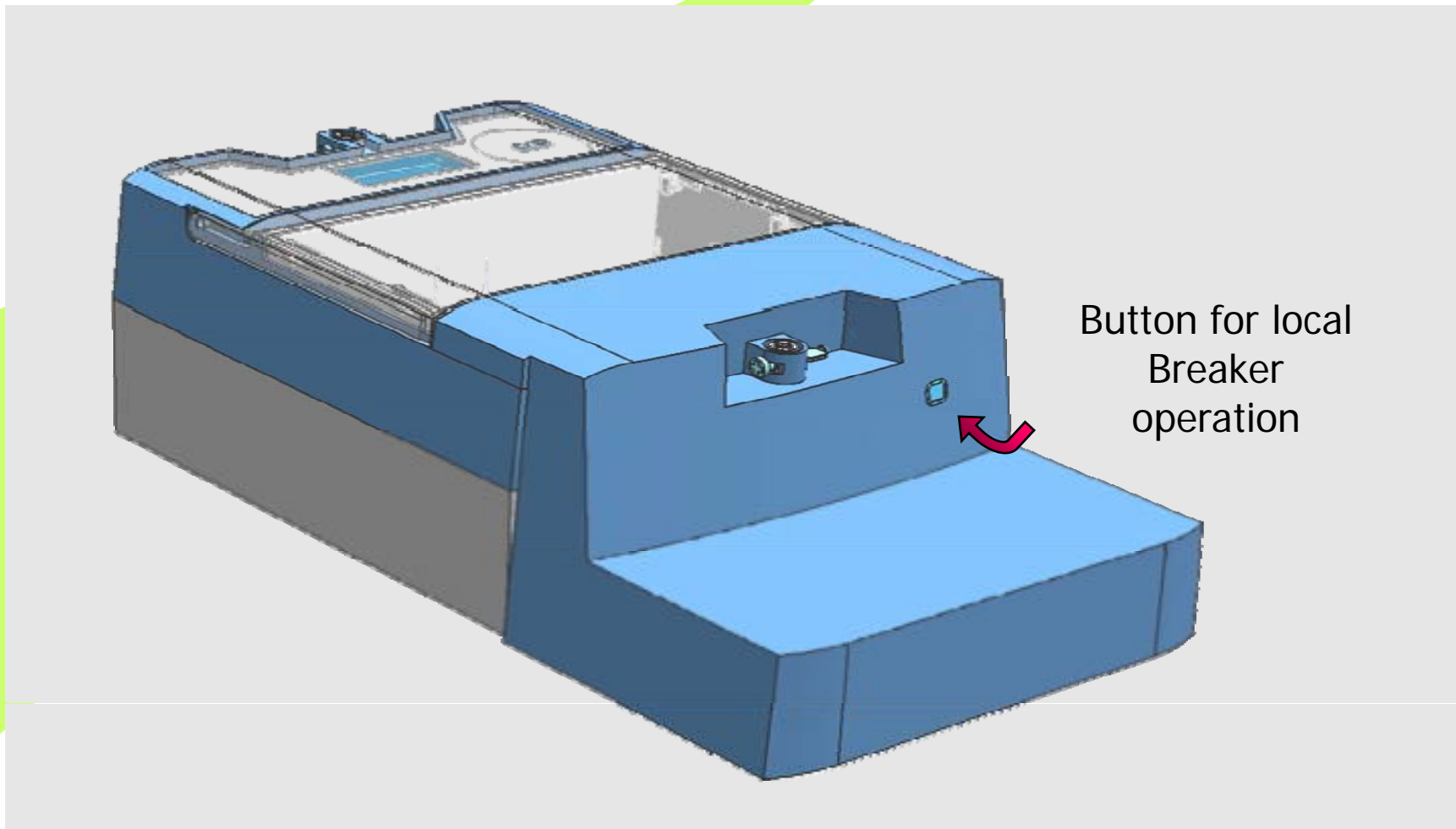


Options:

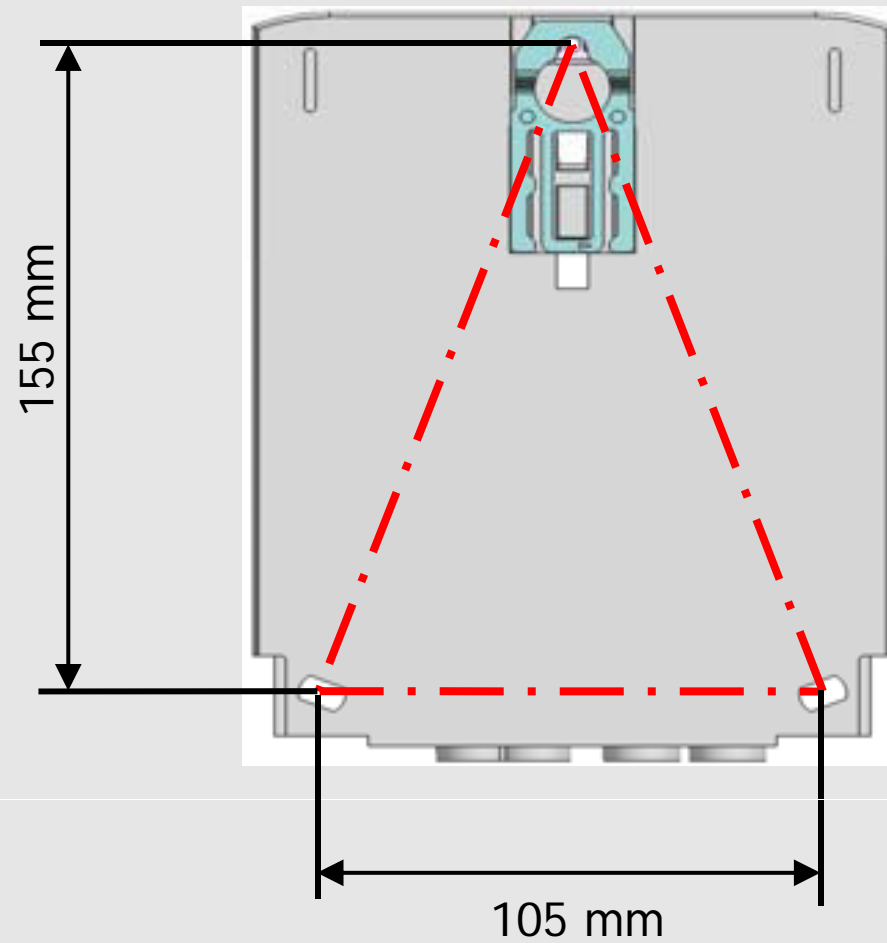
- Breaker
- DC Field shield

Mini-Flex Meter \Rightarrow ZCF100

Push button for local operation



Mini-Flex Meter \Rightarrow ZCF100 Installation - DIN Dimensions



Mini-Flex Meter ⇒ ZCF100 Unique Customer Values

- Integrated AMR unit, pre-tested ready for installation
- Truly manufacturer-independent AMR modules
- Expandable for future communication channels
- Expandable for future applications
- Based on field-proven Landis+Gyr metering technology
- Insurance against stranded investment into AMM/AMR

The ZCF meter is the ideal platform
for your future
AMR/AMM application

Mini-Flex Meter ⇒ ZCF100 Portfolio availability and approval

- ✓ MID approval for the ZCF100AC planned in Q1/07
- ✓ MID approval for the ZCF100AB planned in Q1..Q2/07