

<b>Equipment</b>	<b>Master meter</b>		
<b>Model</b>	<b>ZCM17-24 with electronic register</b>		
<b>Performance characteristics</b>			
Measured liquids	Liquid hydrocarbons, industrial oil, fatty acid esters, ethanol		
Static pressure	max	15 bar	
Inlet pressure	max	10 bar	
Liquid temperature	min / max	- 10°C / +90°C	14°F / +194°F
Working flow rate	min / max	2.4 m <sup>3</sup> /h - 40 L/min – 10.5 USGPM / 24 m <sup>3</sup> /h - 400 L/min - 105 USGPM	
Liquid viscosity	max	20 mm <sup>2</sup> /s (MID) - 800 mm <sup>2</sup> /s - at operating conditions	
Accuracy / Repeatability	< 0.1% of measured value / < 0.02% of measured value		
Pressure drop	See attached pressure drop chart		
Calibration report	According to OIML R117-1 / One calibration report per operating viscosity Calibration at 7 flowrates with 2 repetitions per flow rate Calibration at 2.4, 6, 9.6, 13.2, 16.8; 20.4 and 24 m <sup>3</sup> /h		
<b>Flowmeter manifold</b>			
Connection nominal size	DN 50 / 2"		
Material	Aluminum (EN AC-42200)		
End connection style	Satam flanges		
Coating	Acrylic-Epoxy coating RAL5010, Marine Epoxy coating RAL5010 (option)		
<b>Flowmeter body</b>			
Body material	Ductile iron (EN 5.3201) with anticorrosion lining , Ni resist iron (EN-JL3011) (option)		
Cap/end cover material	Carbon steel (EN 1.0625) with protective coating		
Seal/O-ring material	Viton, Nitrile (option for alcohols measurement)		
External coating	Acrylic-Epoxy coating RAL5010, Marine Epoxy coating RAL5010 (option)		
<b>Measuring chamber</b>			
Displacement element type	Sliding vanes flowmeter		
Cyclic volume	0.4 L - 0,1 USG		
Blades / Blades connection rods	Graphite / Stainless steel		
Rotor / Bearings	Aluminum (EN AC-42100) / Stainless steel (EN 1.4301)		
Swing joint	Viton, Nitrile (option for alcohols), PTFE (option for low ambient temperature)		
<b>Drive train and adjuster</b>			
Drive type	Mechanical transmission		
Accuracy adjuster type	Calibration constants – Linearization according to calibration report		
Pulses transmitter	Type AC30		
<b>Register</b>			
Register type	Electronic register, Equalis S		
Display	Operating volume, base volume, volume flowrate, temperature		
<b>Accessories</b>			
Temperature measurement	Pt100		
Pressure measurement	Local display		
<b>Trolley version (option)</b>			
Trolley	Calibration device mounted on chassis with 4 pivoting wheels		
Connecting pipes between meter and hoses	2, Steel		
Flexible hoses / Connections	3mL / Loose type flanges 2"ASA 150lbs, TODO type couplings, CAMLOCK type couplings		
Isolating valve	Ball valve located downstream the meter (option)		
Drainage equipment	Manual drainage pump with purge valve, hoses and 2 release valves		
<b>Environmental</b>			
Ambient working temperature	min / max	-25°C, -40°C (option) / +55°C	-13°F, -40°F (option) / +131°F
Storage temperature	min / max	-40°C / +80°C	-40°F / +176°F
<b>Certification</b>			
ATEX	Zone 1, II 2 G – See note 1		

Note 1: See AC30 and Equalis S data sheets for Ex approval characteristics

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**Manufacturing facility**

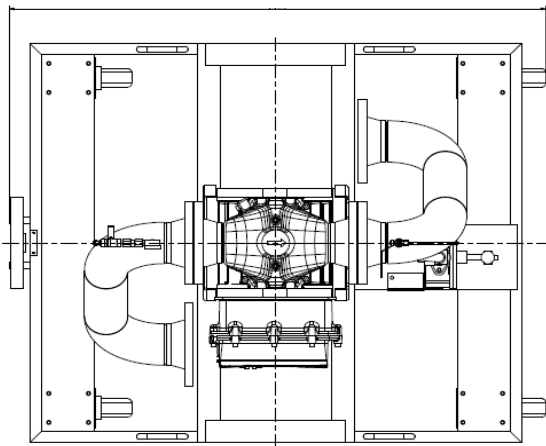
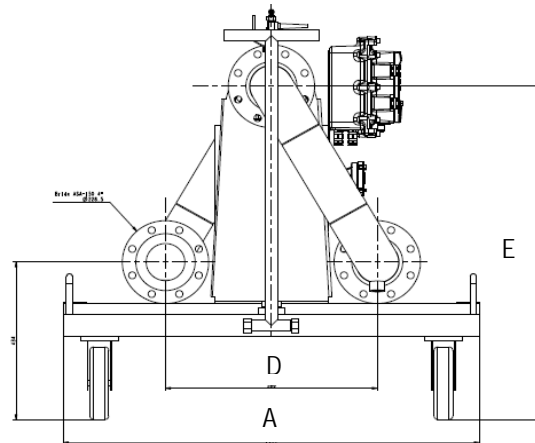
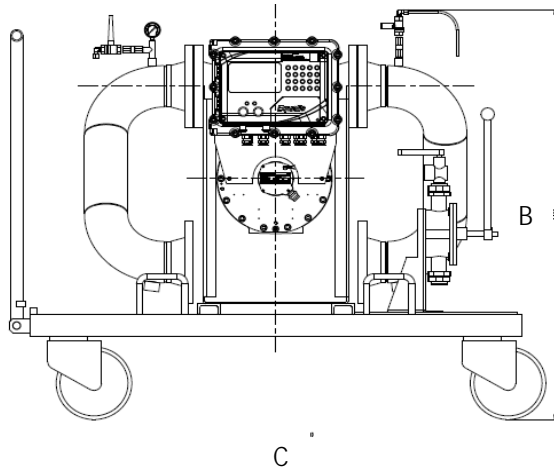
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DS55-Rev00-09/17-Marketing Satam  
Subject to modification without prior notice

**Equipment****Master meter****Model****ZCM17-24 with electronic register****Dimensions and weight (trolley version)**

Hoses for process connection are not shown on this drawing.



Dimensions (mm)	ZCM17-24
A	600
B	1100
C	1050
D	520
E	870
Weight (kg)	218

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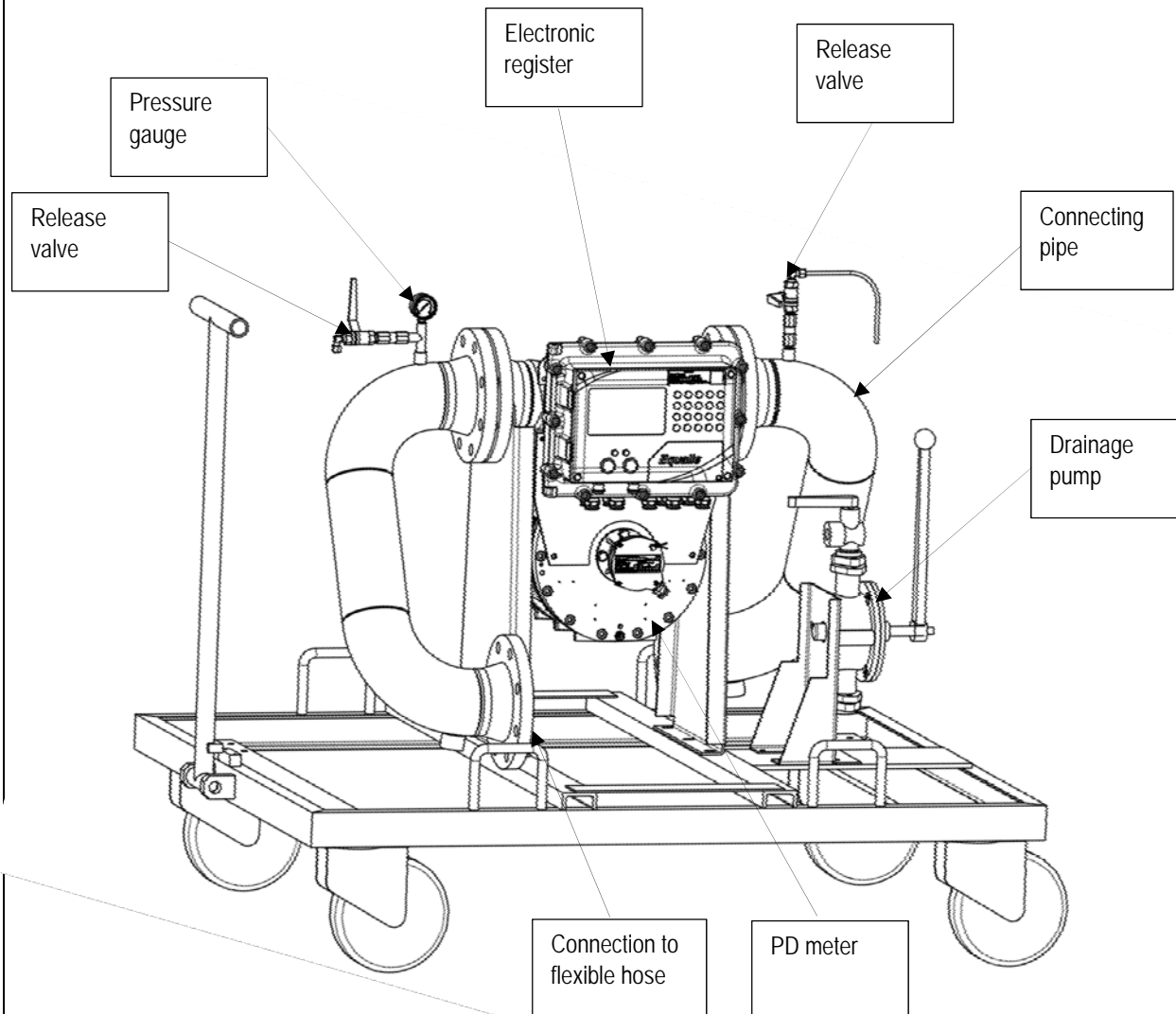
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<b>Equipment</b>	<b>Master meter</b>
<b>Model</b>	<b>ZCM17-24 with electronic register</b>

**Typical design of ZCM17 (trolley version)**

Hoses for process connection and temperature probe are not shown on this drawing.



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