

<b>Equipment</b>	<b>Vertical measuring system</b>	
<b>Model</b>	<b>ZCE5-80 with mechanical register</b>	
<b>Performance characteristics</b>		
Measured liquids	Liquid hydrocarbons, industrial oils, 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	8 m <sup>3</sup> /h - 133 L/min - 36 USGPM / 80 m <sup>3</sup> /h - 1333 L/min - 360 USGPM
Liquid viscosity	max	20 mm <sup>2</sup> /s (MID) - 800 mm <sup>2</sup> /s - at operating conditions
Accuracy	< +/- 0.15% of measured value	
Repeatability	< +/- 0.02% of measured value	
Pressure drop	See enclosed table	
Calibration report	On 3 points (8 m <sup>3</sup> /h, 40 m <sup>3</sup> /h, 80 m <sup>3</sup> /h)	
<b>Description of the measuring system</b>		
Components	<b>1-Manifold</b> <b>2-Strainer Air eliminator – EC29</b> <b>3-Positive displacement meter – ZC17-80</b> <b>4-Multi-function valve with electromechanical control box – XAD37</b> <b>5-Mechanical register</b>	
<b>1-Manifold</b>		
Connection nominal size	DN 80 / 3"	
End connection style	Flanges ASA 150 RF	
Material	Steel (EN 1.0625)	
External coating	Acrylic-Epoxy coating RAL5010	
<b>2-Strainer air eliminator - EC29</b>		
Effective volume	53 L	
Materials	body / seal	Steel (EN 1.0625) / Viton, nitrile (option alcohols measurement)
Thermowell ports	2, ½ " gas, plugged	
Drain port	1" ¼ gas, plugged	
Gas release head	Automatic gas release controlled by float and differential valve	
Gas release connection	¼ "	
Dry contact for gas detection (AC10)	REED contact controlled by float position	
Valve on gas release pipe	Ball valve (option)	
Filtering technology	2 Basket filters	
Filtering size	50 µm, 200 µm, 450 µm (selection depending on measured product)	
External coating	Acrylic-Epoxy coating RAL5010	
<b>3-Positive Displacement meter - ZC17-80</b>		
Displacement element type	Sliding vanes flowmeter	
Cyclic volume	2,27 L - 0,6 USG	
Body material	Ductile iron (EN 5.3201), 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)	
Blades / Blades connection rods	Graphite / Stainless steel	
Rotor/ Bearings	Aluminum (EN AC-42100) / Stainless steel (EN 1.4301)	
Swing joint	Viton, Nitrile (option for alcohol), PTFE (option for low ambient temperature)	
Accuracy adjuster type	AB21	
Temperature compensation type	NA	
External coating	Acrylic-Epoxy coating RAL5010	

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<b>Equipment</b>	<b>Vertical measuring unit</b>		
<b>Model</b>	<b>ZCE5-80 with mechanical register</b>		
<b>4-Multi-function valve – XAD37 with electromechanical control box</b>			
Operating principle	Piston operated by differential pressure with electromechanically controlled inlet circuit.		
Cylinder material	Aluminum (EN AC-42100)		
Piston material	Aluminum with lining (EN AW-7075)		
Retaining spring material	Stainless steel		
Decompression ball - Thermal relief valve	Calibrated at 0.4 bar		
Adjusting screw	For closing time adjustment		
Electrical control box - AC16	Drive shaft controlled by 2 electromagnets allowing operation in low flow rate and high flow rate.		
Electromagnets specifications	220VAC 50Hz, peak inrush intensity: 2A, holding intensity: 1A		
External coating	Acrylic-Epoxy coating RAL5010		
<b>5-Register</b>			
Register type	Mechanical register		
Model	VR7887, 5 digits – direct metering, differential metering (option), 6 digits (option)		
Accessories	Preset with valve, printer, pulses transmitter		
<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	II 2 G c T4 Gb		
European metrology	CE /MID Type examination certificate n°LNE-6184		
International metrology	OIMLR117-1, type compliance certificate n°LNE-24351		
Standards compliance	API, ASME, NATO. See note 1		

Note 1: Contact us for further information about standards compliance.

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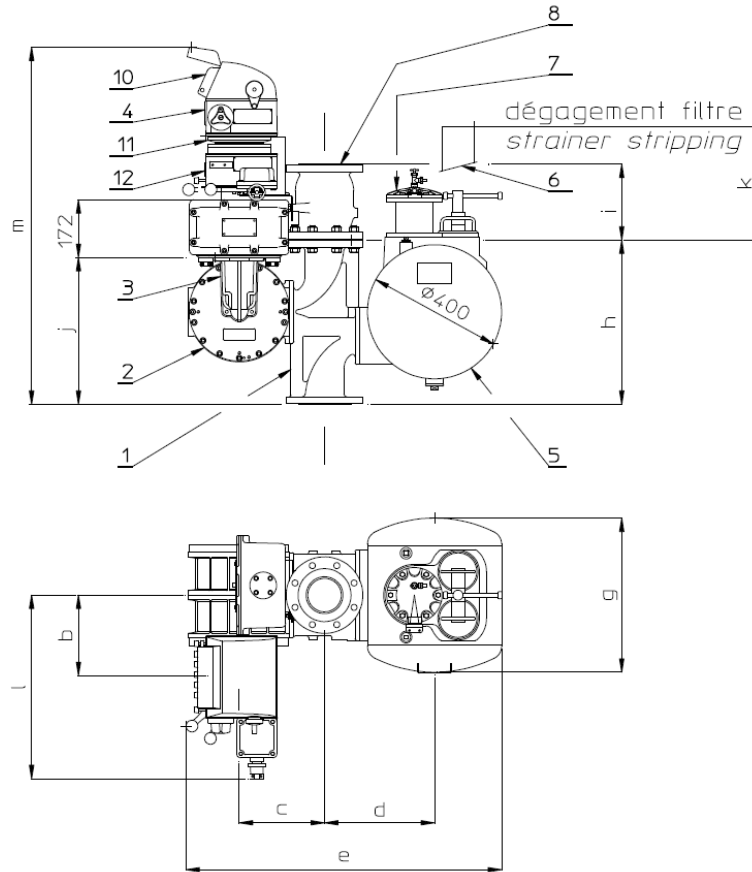
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**Equipment** Vertical measuring system

**Model** ZCE5-80 with mechanical register

**Dimensions and weight – Bottom loading configuration**



ZC17-80	Dimensions (mm)
b	176
c	234.5
d	306
e	893
f	413
g	460
h	382
i	188.5
j	384
k	430
l	486
m	1011

Reference	Component
1	Manifold
2	PD meter
3	Adjusting mechanism AB21
4	N/A
5	Strainer Air eliminator
6	Strainer stripping
7	Gas release head
8	Multifunction valve
9	N/A
10	Printer
11	Preset
12	Mechanical register

**Weight: 220 kg**

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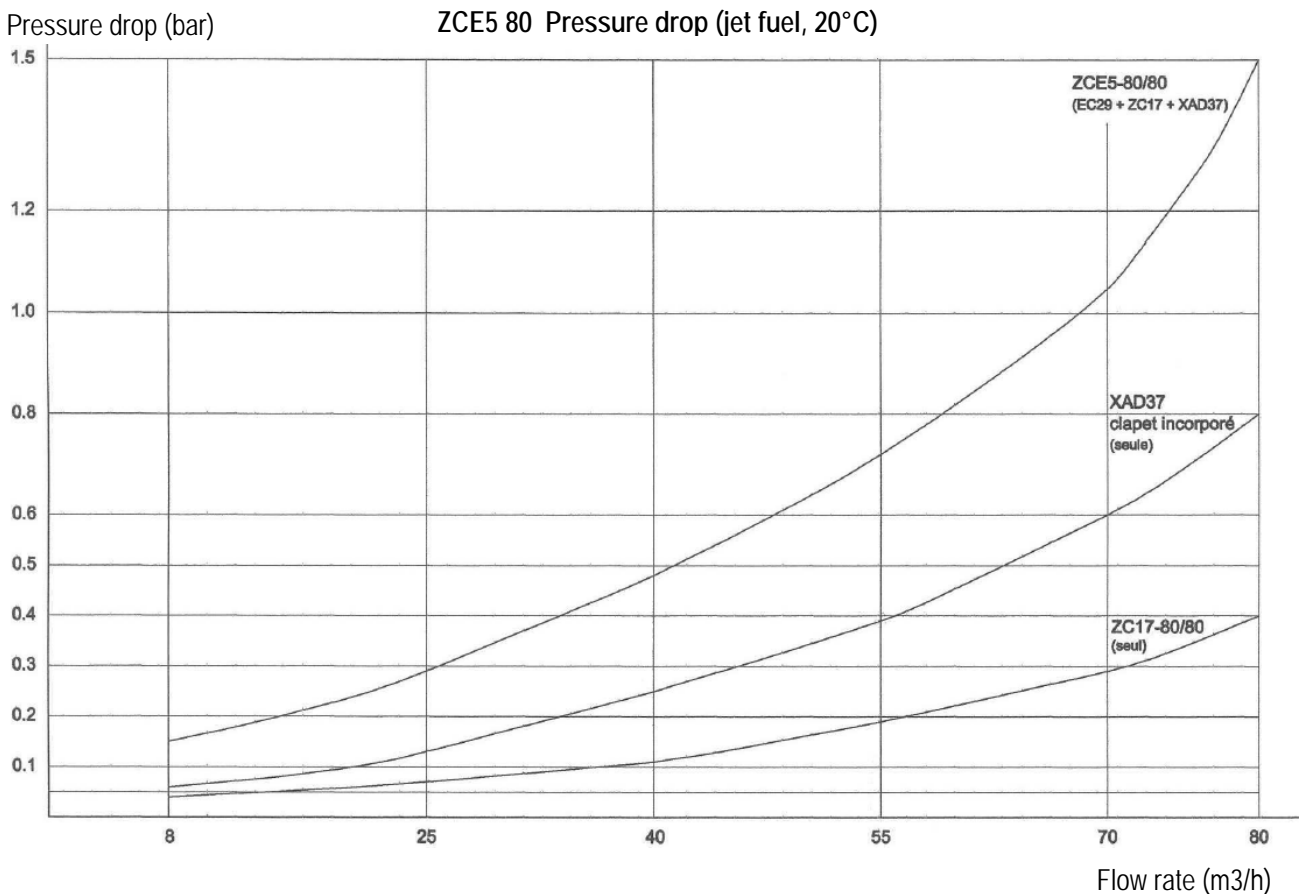
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<b>Equipment</b>	<b>Positive Displacement meter</b>
<b>Model</b>	<b>ZCE5-80 with mechanical register</b>

## Pressure drop chart



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