

Equipment	Horizontal measuring system	
Model	EMS48 with electronic register	
Performance characteristics		
Measured liquids	Liquid hydrocarbons, industrial oils, fatty acid esters, ethanol	
Static pressure	max	15 bar
Inlet pressure	max	8 bar – 6 bar for gasoline (MID)
Liquid temperature	min / max	- 10°C / +90°C 14°F / +194°F
Working flow rate	min / max	4.8 m ³ /h - 8 L/min – 21 USGPM / 48 m ³ /h - 800 L/min – 210 USGPM
Liquid viscosity	max	20 mm ² /s at operating conditions
Accuracy	< +/- 0.15% of measured value	
Repeatability	< +/- 0.02% of measured value	
Pressure drop at max flowrate	0.7 bar max (without valve) – see valve datasheet for additional data.	
Test report	Test of gas extractor efficiency (@ max flow rate with gas pocket) Calibration on 3 points (4.8 m ³ /h, 24 m ³ /h, 48 m ³ /h) – meter only	
Description of the measuring system		
Components	<ol style="list-style-type: none"> 1- Strainer Air eliminator – FS24 2- Positive displacement meter – ZC17-48 3- Multi-function valves (option) 4- Gas detector (option) 5- Three-way valve (option) 6- Electronic register (option) 	
1-Strainer air eliminator – FS24		
Connection nominal size	inlet / outlet	DN 80 / DN50 - 3" / 2"
Effective volume	11 L	
Materials	body / seal	Aluminum (EN AC 42200) / Viton, nitrile (option alcohols measurement)
Check valve	Embedded, on liquid outlet	
Gas release head	Automatic gas release controlled by float and differential valve	
Gas release connection	DN25 - 1"	
Filtering technology	Basket filter	
Filtering size	50 µm, 200 µm, 450 µm (selection depending on measured product)	
External coating	Acrylic-Epoxy coating RAL5010	
2-Positive Displacement meter - ZC17-48		
Connection nominal size	DN 50 - 2"	
Displacement element type	Sliding vanes flowmeter	
Cyclic volume	0,80 L - 0,21 USG	
Body material	Ni resist iron (EN-JL3011)	
Cap/end cover material	Carbon steel (EN 1.0625) with protective coating	
External coating	Acrylic-Epoxy coating RAL5010	
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	Calibration constants	
Pulses transmitter	Type AC30	
Temperature compensation type	External Pt100	

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Equipment	Horizontal measuring system		
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3-Multi-function valves			
31-Multi-function valve (option): XAD54 with pneumatic control			
Connection nominal size	DN50 - 2"		
Operating principle	Piston operated by differential pressure with pneumatically controlled inlet circuit		
Body material & Cylinder material	Aluminum (EN AC-42200)		
Piston material	Aluminum with lining (EN AW-5083)		
Retaining spring material	Stainless steel		
Closing time adjustment	Adjusting screw (XAD39) / Pressure adjustment (XAD54)		
External coating	Acrylic-Epoxy coating RAL5010		
32-Multi-function valve (option): XAD39-B with electrical control			
Connection nominal size	DN 50 - 2"		
Operating principle	Standard version: two single acting diaphragm valves to control low flow rate and high flow rate. Diaphragms operated by solenoids. Low temperature version: piston valve activated by 2 solenoids to control low flow rate and high flow rate.		
Body material	Brass		
Seal materials	Viton, Nitrile (option for alcohols measurement), PTFE (option for low temperature version)		
External coating	Acrylic-epoxy coating - RAL5010		
Electromagnets specifications	220VAC 50Hz, 220VAC 60Hz (option), 24 VDC (option)		
Ambient working temperature	min / max	-20°C, -40°C (low temp. option) / +40°C	-4°F, -40°F (option) / +176°F
4-Gas detector (option)			
Working principle	Glass sight for visual detection of gas		
Installation	Downstream XAD39-B valve Integrated as standard into XAD54 valve		
Materials	Aluminum, glass		
External coating	Acrylic-Epoxy coating RAL5010		
5-Three-way valve XAD46 (option)			
Connection nominal size	DN50 - 2"		
Operating principle	Manual 3-way ball valve to enable delivery via empty hose or via full hose		
Body material	Stainless steel, Aluminum (clapper box)		
External coating	Acrylic-Epoxy coating RAL5010		
4-Register			
Register type	Electronic register		
Model	Equalis S or equivalent		
Environmental			
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
Certification			
ATEX	II 2 G T4 Gb – See note 1		
European metrology	CE /MID Type examination certificate n°LNE-11123		
International metrology	OIMLR117-1, type compliance certificate n°LNE-24351		
Standards compliance	API, ASME, NATO. See note 1		

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

Note 2: Contact us for further information about standards compliance.

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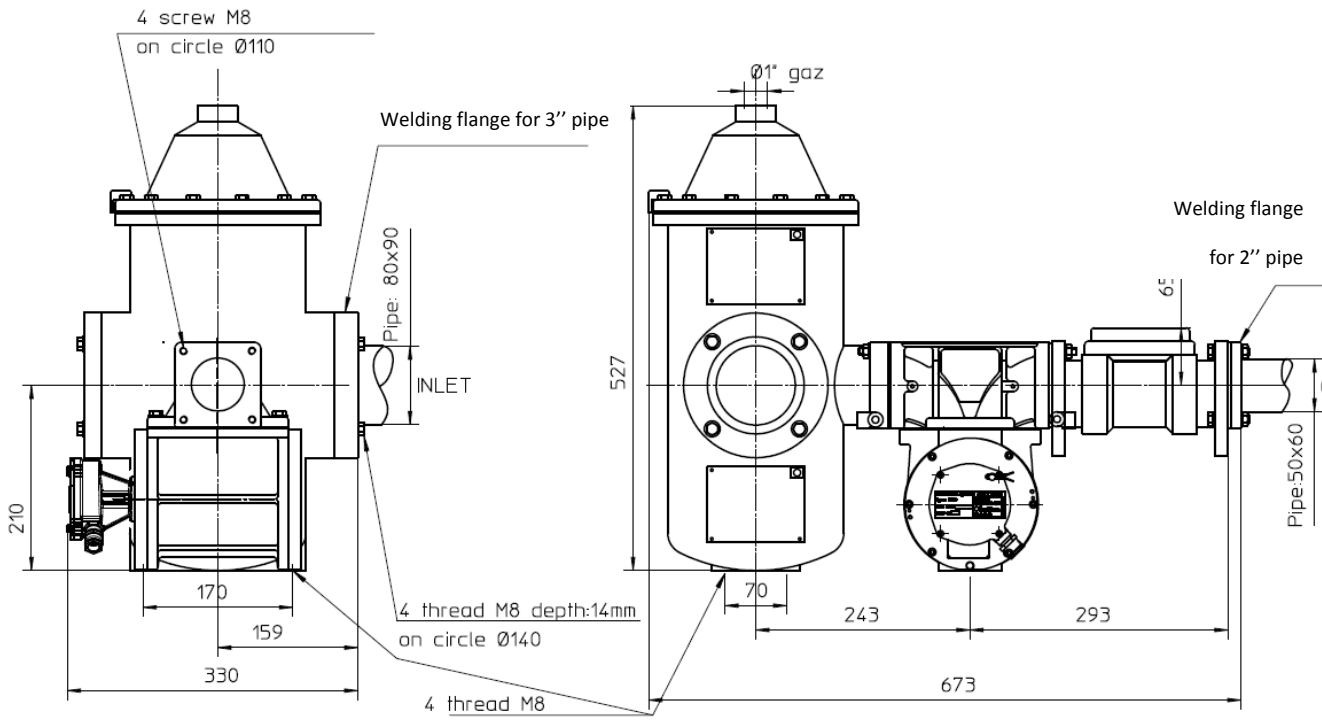
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Equipment	Horizontal measuring system
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Dimensions and weight

The version shown below is a left hand inlet device. It consists of Strainer Air Eliminator, PD meter, XAD39-B valve.



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