

# ATEX site gas volume converter for orifice plate



## CDV 15-4

Flow computers

Measuring systems

Remote Terminal Unit

Supervisory system

The CDV 15-4 is a field flow computer with embedded differential pressure transmitter dedicated to the metering of natural and industrial gases. It can be installed in hazardous area.

CDV 15-4 also provides energy metering data through the management of chromatograph or calorimeter.

Available in low power version with battery or solar panel, CDV15-4 is ideal as back-up metering station on natural gas metering installations.

## All metering applications

The modular design of the CDV 15-4 is adapted to all requirements of the natural and industrial gas metering markets. The «Base» version can be updated to «High» version.

### «Base» version

Suitable for remote metering stations without power supply. Metering with correction of pressure, temperature and Z coefficient.

### «High» Version

Connection to a chromatograph for calculation of heating value and energy metering. Optimised communication with multiple inputs/outputs.

## A wide range of applications

Delivery station at interface between transport and distribution. Metering station on industrial site. Metering station at entry of thermal power unit. Self powered back-up metering station.

## Easy installation and operation

### Easy installation

Simplified wiring with absolute and differential pressure dedicated transmitters without external power supply or specific configuration. Small dimensions requiring no particular installation equipment. ATEX certified equipment for a direct installation in the measuring zone. Robust housing with IP66 protection.

### Easy operation

Operation with closed enclosure. Keyboard with 6 external keys (configuration and operation). External interface for PC (configuration, operation and maintenance).

## Standalone operation

A «low-energy» version of the CDV15 is intended for utilization in standalone mode.

### Battery-powered

Two year autonomy with built-in battery power supply. Dual solar power and battery for extended functionalities.

### Optimized energy management

Actuation of the display mode upon request. Data acquisition with automatic management of standby mode.

## Extended data logging and communication functions


### Data record

Removable CompactFlash™ memory card. Capacity of 4 400 000 records. Easy retrieval of data saved in spreadsheet format (.csv, .xls...) and display in curves.

### Communication

Configuration, operation and maintenance by PC via dedicated software with an intuitive and user-friendly man/machine interface. Possibility of local configuration and maintenance through keyboard and display. Possibility of cascade copying of data from the chromatograph or calorimeter to others CDV 15-4 flowcomputers for reduced costs and simplified installation.

# Technical data - Site gas volume converter for orifice plate

Model		CDV 15-4		
Applications		Back-up metering module for international metering station Delivery station of natural gas to industrial user Delivery station to thermal power plant		
Functions		Data logging, calculation of corrected volume, mass and energy, alarm management Monitoring of analog and logic inputs/outputs status, alarms management Secured recording of metrological data and event logs Communication with automation (PLC) and supervision		
Metrology	Meter	Differential pressure system		
	Gas quality	Chromatograph or calorimeter		
	Temperature	Pt100 or 4-20mA transmitter		
	Pressure	Dedicated digital sensor or 4-20mA transmitter		
	Differential pressure	Dedicated digital sensor or 4-20 mA multirange transmitter		
Base volume, mass and energy calculations		ISO5167 or AGA3 differential pressure system metering ; Conversion to reference conditions ISO 13443 Calculation of compressibility factor Table Z, AGA8, AGA NX 19, GERG 88 ; Conversion device: according EN 12405.		
Equipment	User interface	LCD 4 20-characters lines , 99,999,999 stage alphanumeric display – 6-key keyboard		
	Enclosure	Material: inox and aluminium for the top cover L x W x D : 200x200x205 mm - Weight 4,5 kg Fixing: wall or tube-mounting Connection for dedicated pressure sensor: male ¼ "gas connector Electric connection: 10 plugs-in screw terminals		
	Data storage	Capacity 4 440 000 reports	Base	High
Inputs/Outputs	Differential pressure	Digital inputs for differential pressure measurement by dedicated sensor 0 to 320mbar for static pressure max. 160 or 420 bar 0 to 1,300mbar for static pressure max. 160 or 420 bar	1	1
		Analog inputs for 4-20mA differential pressure measurement	3	3
	Pressure	Dedicated pressure sensors: Abs. 0-2 / 0-10 / 0-30 / 0-50 / 0-100 bar or 0-0,2 / 0-5 / 0-10 / 0-20 bar (g) or passive 4-20mA input	2	2
	Temperature	Pt100 class A, 24-bit resolution or passive 4-20mA	1	2
	Analog input	4-20mA passive, 24bit resolution for pressure, temperature or others	4	6
	Digital Inputs/outputs	Can be configured for condition detection, information copy, monitoring Dry contact inputs or open collector outputs	4	8
	Analog outputs	Can be configured for analog data copy (flow rate, pressure, temperature) 0,4-2VCC (4-20mA upon request), 12-bit resolution	2	2
	RS232 Serial link	Configuration - programming	1	1
		Printer communication	0	1
		MODBUS for external Modem, link with automation (PLC), supervision...	0	1
	RS422 Serial link	MODBUS or proprietary protocol	1	2
	RS485 Serial link	Communication with chromatograph, calorimeter	0	1
Languages		French, English, Spanish, Italian		
Operating Conditions	Temperature	Ambient : - 25°C to + 55°C ; Storage : - 40°C to + 70°C		
	Relative Humidity	< 98% without condensation		
Installation	ATEX Certification	LCIE 03 ATEX 6320 X -  II1G-Ex ia IIB ou IIA T4 Ga		
	Protection class	IP 66		
	Power supply	2 years autonomy with 5.6Vcc battery Solar panel with battery and charger 115Vca or 230Vca , 50 or 60Hz , with battery backup unit 24Vcc for CDV 15 installed in a safe area		

C75068-02-GB-REV00-08/18

## Headquarters and Manufacturing facility

ZI la Limoise  
36100 Issoudun FRANCE  
Phone : +33 (0)2 54 03 99 49  
Fax : +33 (0)2 54 21 08 90  
Mail : commercial.issoudun.meci@eiffage.com



As MecI regularly improves its products to ever better respond to evolving market and regulatory requirements, it reserves the right to change any of the specifications of these products, and this without prior notice.

[en.meci.clemessy.com](http://en.meci.clemessy.com)