Easidew Sampler

Self-Contained Sampling System

A low cost self-contained sampling system, with filtration and flow control, for measurement of either pressure or atmospheric dew points

Features

- Compact construction
- Sample filtration
- Flow control
- Monolithic design for faster response
- Low cost
- Gas pressure to 1 MPa (10 Barg) with a high pressure option to 21 MPa (210 Barg) available

Applications

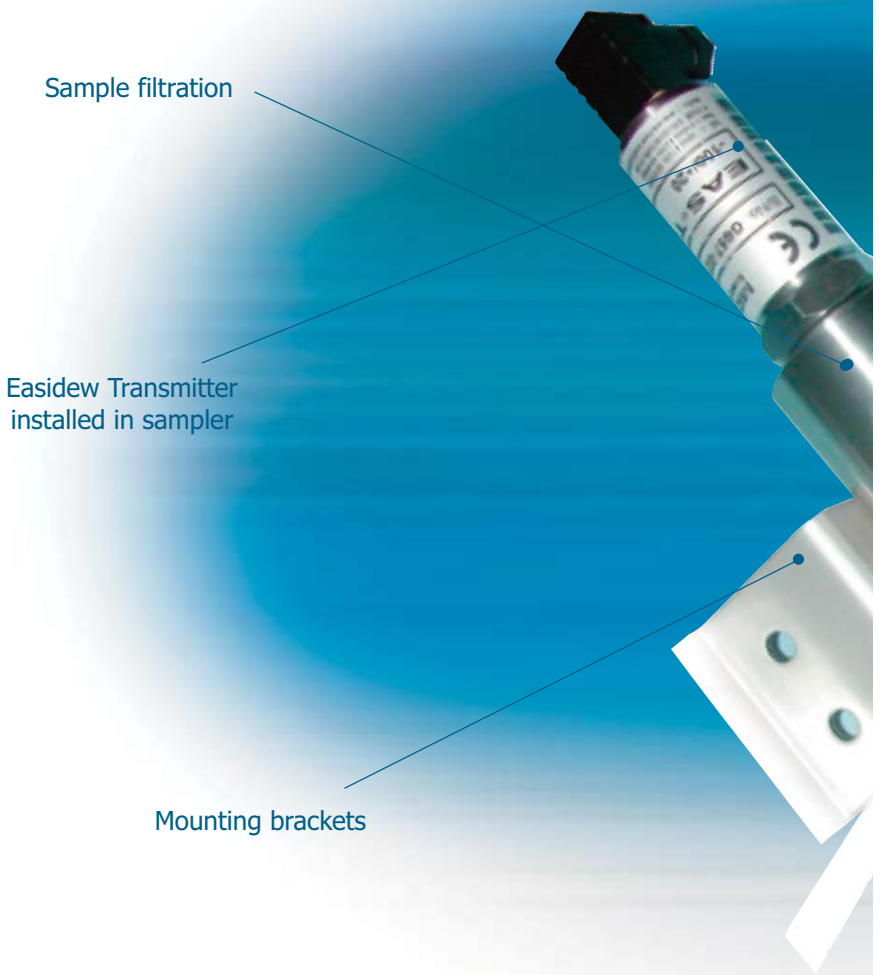
- Compressed air dryers
- Plastic moulding
- Ozone generators
- Medical gases
- Pneumatics
- Breathing air
- Welding gases
- ... and many more

MICHELL Instruments

Easidew Sampler

Easidew Sampler

Self-Contained Sampling System



Background

The Easidew Sampler is a general purpose sampling system that allows easy measurement of the dew point in many compressed air and industrial gas applications. The Easidew Sampler provides all the necessary components to allow a sample of gas under test to be conditioned for measurement either at atmospheric or full line pressure; the two most commonly demanded sampling conditions. Easidew Sampler provides flow and pressure regulation as well as an in-line particulate filter, and housing the sensor, all in a single monolithic block assembly. The system is provided with a multi-directional mounting bracket for easy mounting on a panel, post, or pipe brace.

Fast Response and High Integrity

Easidew Sampler is manufactured from a single, machined stainless steel block. This reduces the number of pipe joints required to get a sample to the sensor under test and also reduces internal volume and surface area. As a result, the sampling system has a faster response and higher integrity than similar systems built from discreet components. The integrated particulate filter provides further protection against solid contamination.

System Description

Easidew Sampler comprises the following key components:

- **Connection Ports**
- **Filter**
- **Flow Control Valve**

Connection Ports

The entry and exit pipe connections are of a quick connect, push fit type and can accept plastic (P.T.F.E., F.E.P.) 6 mm O/D pipe. A 0.5 metre length of P.T.F.E. is supplied which should be used as a pig-tail from the outlet port, whether measuring in either the atmospheric or pressure mode.

Filter

A 99.5 % 0.3 micron particulate filter cartridge is fitted downstream of the gas inlet port, accessible via a filter cap with O-ring seal. Other filter cartridge ratings can be supplied to customer order.

Flow Control Valve

A flow control valve is supplied factory fitted to the outlet port. This valve is designed to set the optimum gas flow of between 1 and 5 litres per minute through the sensor sampling block.

www.michell.com

Related Products

Easidew TX

Easidew Online

MICHELL Instruments

Pressure Dew Point Measurements

The Easidew Sampler is factory assembled to make dew point measurements at full line pressure. This is achieved by controlling the gas flow at the outlet port. The maximum operating pressure for the Easidew Sampler is 1 MPa (10 Barg) with a high pressure option to 21 MPa (210 Barg) available.

If desired, the block can be easily reconfigured to make atmospheric dew point measurements by transferring the flow control valve to the inlet port. Simply swap positions of the flow control valve and the gas pipe connection coupling fitted at the inlet port. In this configuration, the flow valve regulates the gas pressure down to atmospheric before it reaches the sensor.

Mounting

The mounting of the Easidew Sampler is non-position critical. A mounting bracket is factory fitted. This bracket is easily removed and repositioned to provide a combination of mounting profiles. Alternatively the user may wish to directly mount the Easidew Sampler without the use of the bracket; for this purpose two M6 x 5 mm deep mounting fixings, pitch at 20 mm, are machined directly into the block.

Cermet II

Transmet I.S.

Please note: Michell Instruments adopts a continuous development program which sometimes necessitates specification changes without notice.

Easidew Sampler

Self-Contained Sampling System

Technical Specifications

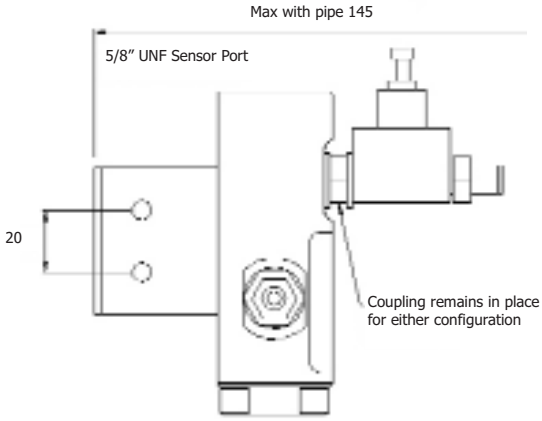
Gas flow rate	1-5 $Nlmin^{-1}$
Operating pressure	1 MPa (10 Barg) with a high pressure option to 21 MPa (210 Barg) available
Particulate filter	99.5 % removal of 0.3 microns
Environmental	IP66 (NEMA 4X)
Operating temperature	-40ºC to +60ºC (or as determined by sensor specification)
Storage temperature	-40ºC to +70ºC, 0-95 % rh Non-condensing
Weight	1.1 Kg (1.3 Kg when sensor fitted)
Vacuum rating	Not vacuum rated with standard push fitting
Material	Block and Cap :316 Stainless Steel
	Flow control block: Aluminium
	Couplings: Nickel plated Brass
Gas connections	Quick Connect fittings for 6mm O/D plastic pipe (PTFE or FEP recommended)
Sample tube	Supplied with 0.5 metre pig-tail vent pipe, to eliminate back-diffusion
Sensor port	5/8" UNF to support all Michell Impedance sensors

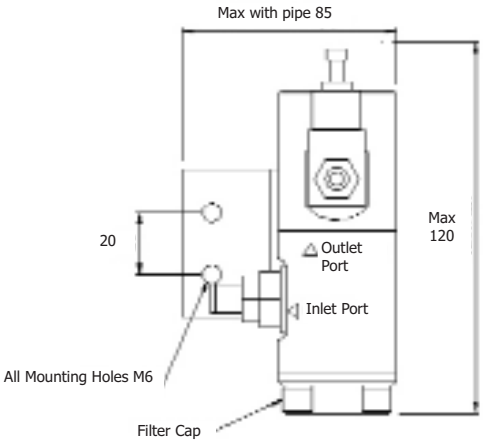
OPTIONS AND ACCESSORIES

Sampling tube	6 mm O/D thick wall PTFE sampling tube is available to customer specific length
Spare filter cartridges	Available in packs of ten cartridges, 99.95 % retention at 0.3 micron
High pressure version	A high pressure configuration with 6 mm O/D compression fittings and high pressure rated flow valve is available to customer order
Flow meter	1 to 5 litre per minute at atmospheric pressure, to be fitted at system outlet

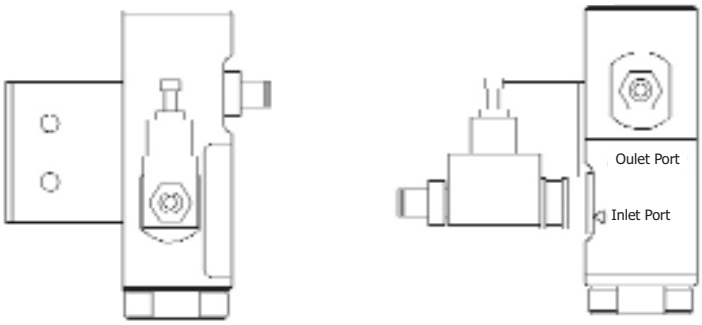
Dimensions

PRESSURE MEASURMENT CONFIGURATION
(Factory Supplied)





ATMOSPHERIC MEASURMENT CONFIGURATION



Dimensions mm

Michell Instruments Ltd
48 Lancaster Way Business Park
Ely, Cambridgeshire
CB6 3NW, United Kingdom

Tel: +44 (0) 1353 658 000
Fax: +44 (0) 1353 658 199
Email: info@michell.co.uk
www: www.michell.com

MICHELL Instruments

Please note: The accuracy stated represents the typical variation between the instruments under test and a calibrated and corrected reference.

Please contact us for the latest version: Easidew Sampler: Ref: EA2-SAM-0707

Easidew Sampler