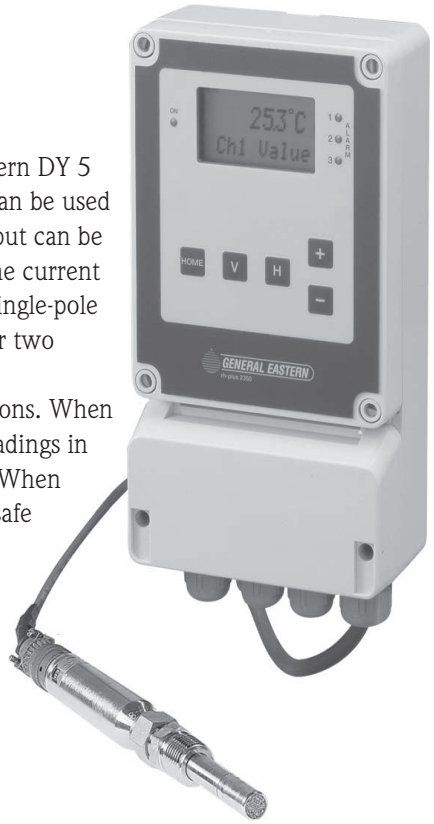
MMY 2650
Dew Point Analyzer

The MMY 2650 is a moisture analyzer designed to operate with the General Eastern DY 5 planar gold aluminum oxide dew point sensor. The unit offers an optional input that can be used for pressure compensation, an external temperature probe, or any other sensor this input can be configured to accept 0 to 5 VDC and 4 to 20mA. The standard product comes with one current output (0-20 mA or 4-20 mA), a system alarm relay, and 3 adjustable relays, all with single-pole double-throw 2.5A contacts, selectable failsafe mode, and adjustable hysteresis. One or two additional current outputs are available.

The Model MMY2650 is available in both wall mount or panel mount configurations. When used with the DY 5 Dew Point Probe, the system is capable of providing dew point readings in the range of -80°C to +20°C dew point over a temperature range of -20°C to +60°C. When used with approved Zener Barriers the Model MMY 2650 is approved as intrinsically safe for use in hazardous areas by Cenelec and FM. ATEX approval pending .



Features

- Optional pressure or temperature compensation
- One or three current outputs
- Three adjustable relay outputs plus system alarm
- User-configurable for a wide variety of applications
- Two Line LCD

Dimensional Drawing & Ordering Information: See page 14

MMY 2650 Trace Moisture Analyzer Specifications

Electronics:	State of the art micro-controller providing utmost flexibility to meet application needs
Standard Inputs:	2 (moisture and temperature)
Optional Input:	For pressure transducer providing live pressure compensation or other sensor. Signals: 0/1 to 5V, 0/4 to 20mA loop powered, or 4 to 20 mA. If live measurement is not available, pressure compensation can be achieved by entering a constant pressure value in matrix location V3HO
Moisture Probe:	Interconnects with DY 5 probe
User Interface:	Five push-buttons, easy configuration using a matrix
Display:	Alpha-Numeric LCD, displays measured value with units of measure, matrix location and programming instructions, error indication with error code if malfunction occurs; user selectable scanning feature alternating the display every 5 seconds through active channels (3 max)
EMI/RDI/ESD Protection:	Full compliance with EN 61326-1
Units of Measure: (Moisture)	Dew point °C, °F, ppm_V (nneds pressure emasurement using the optional input for live calculation or pressure constant entered in matrix location V3-HO), lbs/MMSCF, g/m³, g/kg, vapor pressure in hPa, mmHg, rh%, process pressure calculated dew point °C, °F, (needs temperature measurement using the optional input for live calculation or pressure constant entered in matrix cell V3-HO))
Units of Measure:	(Temp.) °C, °F
Units of Measure:	(Pressure) Optional input used with a pressure transducer: bara, barg, psia, psig, hPaa, hPag
Meaurement Ranges:	User Programmable
Analog Outputs:	3, each configurable to any input, 0/4 to 20 mA, load resistance <500 Ohms, 0/1 to 5V, source resistance 249 Ohms, user selectable range, user selectable condition in case of error to 110%, -10% or hold at last measured value
Digital Outputs:	4 relays (SPDT dry contacts rated at 250V AC, 2.5 A, PAC = 300VA, cos phi > 0.7, P DC 100W, 100 VDC). 1 relay is system alarm. 3 relays are configurable to any input failsafe mode: energized/de-energized selectable, programmable hysteresis, high/low alarm selectable
Serial Output:	RS 485, update rate once per second
Serial Communication:	RS 485, needs GEI communication software for setup or diagnostics
Program:	Non-volatile memory
Data :	EEPROM
Oper./Storage Temp:	-10°C to 50°C (14°F to 122°F)
Supply Voltage:	85 to 275 VAC, optional 18 to 36 VDC
Power Consumption:	5.8 VA for line voltage units, 2.2 W for DC powered units
Enclosures:	Wall mount, IP54, NEMA 12, separate connection compartment
Cable Entry:	PG cable glads PG 9, 2 x PG 11, PG 13
Weight:	1 kg (2.2 lbs)

DY 5 Probe Specifications

Sensor:	Planar gold/aluminum capacitance
Calibration Range:	-80°C to +20°C (-112°F to +68°F) special calibration to -100°C (-148°F)
Recommended Recalibration Cycle:	6 to 12 months depending on the application
Accuracy:	±2°C (±3.6°F) in the standard calibration range
Repeatability:	Better than 1°C (1.8°F)
Calibration Data:	Stored in analyzer's EPROM microprocessor
Standard Operating Temperature:	-20°C to +60°C (-4°F to +140°F)
Max. Rel. Humidity:	50% @ dew point > 0°C (32°F)
Temp. Sensor:	Zener device, range -70°C to +70°C (-94°F to + 158°F)
Signal Transmission:	Frequency, generated by probe electronics
Operating Pressure:	0 to 1750 psig (0 to 120 bar)
Recommended Flow Rate:	1 to 5 SCFH (in a bypass mode)
Gas Flow Velocity:	Static up to 165 ft/sec @ 14.7 psi, 16.5 ft/sec @ 150 psig, 1.65 ft/sec at 1500 psig with no particles in the stream; higher with sintered end cap
Probe Tube:	1/2" diameter, 316 stainless steel
Mounting Adapter:	1/2" tube x 1/2" MNPT, 316 SS compression fitting standard
Cable Connection:	Rugged multi-pin connector; screw terminal in explosion-proof junction box with 1/2" FNPT conduit connection
Probe Cable:	4-conductor, AWG 22, stranded, shielded to maintain EMI/RFI/ESD resistance, up to 1000 ft.
Weight:	.45 kg (1 lb)

MMY 2650 Panel Mount Enclosure Specifications

Material:	Black anodized aluminum
Dimensions:	144mm x 144mm panel (5.67" x 5.67")
Depth:	Maximum protrusion at the rear of the panel: 209mm (8.23") Maximum protrusion at the front of the panel: 8.25mm (0.32") w/ bezel Maximum protrusion at the front of the panel with door: 32mm (1.26")
Panel cutout:	138 mm x 138mm (5.43" x 5.43")
Wiring:	Same configuration as the wall mount unit, wired in the rear
Mounting:	Insert from front into the panel, install the clamps, tighten the clamps' screws from the rear against the panel using a long screwdriver
Front panel:	Overlay w/membrane buttons integrated LEDs & clear window for display