

# Storm Products

## Virgo M&P- Vehicle & Coldstore Recorders with Printer & Display

### Product Brief :

Robust Cost Effective & Reliable

Robust Stainless Steel or Polycarbonate enclosure.  
IP65 Protected.

Easy to Wire & install

Standard Memory with Extended Option.

6 Temperature sensors & 4 events .

Rugged construction and vibration tested to  
meet EEC regulations

Operates on supplies from  
Vehicles types; 9 to 36 volts dc  
Cold Stores types: 220/240v 50/60 Hz ac.

Uses the latest Flash memory storage technology .

Operates in 7 user selectable European  
Languages.

Manufacturer's 2 years warranty.

Simple four stud fixing

Full EMC compliance for emissions and  
perturbations.

RS232 output for Ramlog & PC or Laptop.

Interrogation software fully Windows 95, 98 ,  
2000, ME, XP & NT (wkstn) compatible.

\* Now with Print back from date facility

### RECORDERS WITH PRINTER



Storm Control's respected **Virgo** range of Vehicle & Coldstore recorders with printer and display is based on many years experience in the design, manufacture & supply of reliable recorders to the transport and refrigerated storage industry.

The latest version of the **Virgo-M** is, smaller and lighter than its predecessors but still retains the rugged versatility and cost effectiveness of this well established recorder range.

The Virgo range include standard in-cab and externally fitted recorders, all rated to IP65, for stand alone use.

Both Virgo-M and P types can now be supplied with internal mains power supplies for use in Cold Store locations where mains voltage is the norm.

The units simple menu driven set up facility allows the user to set the unit for local parameters such as language, alarm settings, recording intervals, vehicle registration, company name etc.

The unit is supplied in a Stainless Steel or Polycarbonate enclosure both of which are sealed to IP65.

A heater accessory unit is available for metal versions that allow the printer to operate in ambient temperatures of -30C

The **Virgo** range continues to uphold Storm's long tradition of reliability and value for money.

**For details of pricing and delivery please contact our Sales Office**

**Tel: (44) (0) 1355 571781  
e mail [lindy@stormcontrols.co.uk](mailto:lindy@stormcontrols.co.uk)**



**IP65 Rated Recorders with Printers  
Stainless Steel & Polycarbonate Enclosures  
Virgo - Range**

Technical Specification

MEETS  
AFNOR E18-150 & EN12830 & UNE82500  
STANDARDS

**Input Voltage:** Vehicle Version: 9 to 36 volts dc.  
Cold Store version: 220/240v 50/60 Hz ac  
with adapter

**Sensor Channels:** 1 to 6  
**Event Channels:** Doors : 2  
Defrost: 2

**Electrical safety:**  
NF C 42-010 & EN61010-1  
**Electrical Perturbations:**  
NF C 46-023 & EN50081-1 & EN50082-1

**Battery Back up:**  
**Operating:**  
Data in memory: Indefinitely  
Clock: Indefinitely  
**Stand-by:**  
Data in memory: Indefinitely  
Clock: 5 years minimum.

**Data Storage Memory size:**  
**Readings before roll over:**  
**Standard** 7592/Channel

**Temperature measurement range:**  
-40 to +50 Degrees Centigrade

**Sensor response time:**  
Less than 10 min at air flow of 1 metre/sec.  
**Resolution:** **Class 1** 0.1 Degrees Cent.  
**Accuracy:** **Class 1** +/- 0.5 Degrees Cent.

**Storage Intervals:** 1 to 60 minutes adjustable

**Clock Time Error:** Less than +/- 0.1 %

**Language selection:** English, French, German, Dutch  
Italian, Spanish, (Danish or  
Portugese)

**Control Keys:** 4 off

**Display:** 2 x 16 Super twist

**Printer:** 24 Col. Impact printer.  
**Print Speed:** 1 line per second  
**Paper Roll Length:** 15 metres

**Monitor Environmental Specification**

**Temperature:**  
**Operating :** -30 to +65 Celsius  
**Storage:** -40 to +85 Celsius

**Printer Environmental Specification**

**Operating:** -10 to +50 Celsius  
**Storage** -20 to +60 Celsius  
NB. Heater kit available for operation of printer to – 30C.

**Humidity:**  
**Operating:** 5 to 95% non-condensing.  
**Non Operating:** 5 to 95% non-condensing.

**Enclosure protection:** EN 60529 rated IP65

**Shock Tests:** EN 60068-2-27

**Vibration Tests:**  
**Frequency:** 5 HZ to 150 HZ  
**Frequency Steps:** 8.6 Hz.  
**Amplitude:** 10 mm  
**Acceleration:** 29.4 m/s/s =3g

**Data Storage Capacity:** 160 days (Standard)

<b>Physical Dimensions</b>	<b>Metal</b>	<b>Polycarbonate</b>
Length:	230 mm	213 mm
Height:	182 mm	180 mm
Depth:	85 mm	110 mm
Weight:	2.4 Kg.	1.6 Kg
Screw Fittings:	4	4
Colour:	White	Grey
Enclosure material:	Stainless Steel	Polycarbonate

**Data Interface:** RS232 9 Pin D connector 9600 baud

**CEE Test House :** **The University of Paisley  
& CITS**

**Interference Immunity Conformance**

**Radiated Emissions** EN55022 (1987) Class B  
**Electrostatic Discharge** EN 6000-4-2.  
**Radiated Immunity** EN 6000-4-3  
**Fast Transient Bursts** EN 6000-4-4.

**Calibration:** Self Calibrating

**Quality Standards:**  
**Design & Manufacture** BSI ISO 9001:2000

**Accessories**

**Standard Sensors:**  
Stainless steel bullet, cable sizes as required.

**Cdata :** Down load & interrogation Software:

**STORM CONTROLS LTD.**

1, Tennant Avenue, College Milton South, East Kilbride G74 5NA  
SCOTLAND

Tel: (44)(0) 1355 571781

email: [sales@stormcontrols.co.uk](mailto:sales@stormcontrols.co.uk)

web site: [stormcontrols.co.uk](http://stormcontrols.co.uk)