# and freezers



# 100% INNOVATION

# TEMPERATURE-CONTROLLED REFRIGERATORS FOR PHARMACIES

For more than 50 years, Fiocchetti has been designing and manufacturing refrigerators and freezers dedicated to the use in pharmacies, laboratories and hospitals. The respect of the most stringent sector regulations has always been assured: medical grade products and thermosensitive, biological materials, requiring an accurate control over storage conditions are continuously granted an ideal environment.





### **WIDE RANGE OF** REFRIGERATORS FOR **PHARMACIES**

Fiocchetti's refrigerators series, available with controllers ECT-F. ECT-F PLUS and ECT-F **TOUCH**, fit perfectly into your pharmacies thanks to their appealing and clean design, updated in terms of style and performances, to always store your products at best.

**REFRIGERATORS** with single or double temperature ranges settings, FREEZERS for celiac disease products, **COMBINED** (refrigerator + freezer chamber) are available in a large variety of capacity and dimensions, with customizable internal fittings.

### DESIGN

The continuously improved structures for both dimensions and shape will maximize the use of inner space. The chassis in white antibacterial coated steel grants a perfect cleaning of the inner chamber and of the outer structure, offering rounded bottom and corners. Some models are also available with interior in AISI 304 stainless steel

The full set of equipment features a triple layer, tempered glass door, anti-fog type and thermally insulated. This will allow you keeping the stored goods under control, while preventing unnecessary door opening. On request, some models may be solid-door type. The all-length, aluminium door handle grants a firm handgrip. Door gasket is magnetic type; a door stop device will keep door open at 90°.

The ceiling-type evaporator will increase the actual storage capacity of refrigerators since the inner space can be fully used.

The enhanced accessibility to the inner space will make routine maintenance and after sales service easier; for instance, the monthly programmed condenser cleaning is simplified thanks to the quick access to the detachable front condenser panel.











# CARE AND

# CUSTOMIZATION

## TOP PERFORMANCE AND GREEN TECHNOLOGY

### POWER SAVING AND RESPECT CUSTOMIZATION FOR THE ENVIRONMENT

**Internal LED lighting**: it decreases up to 75% power consumption and improves the life of LED bars in time, when compared to bulbs. Standard for ECT-F TOUCH range, the Night&Day function allows to increase the set point of a certain value and to manage the light in a smart way, to assure a further energy saving during nighttime, closing time or holidays.

**Lower energy consumption**: while preserving the top-level performance of the refrigerators, energy consumption is significantly reduced. This goal is reached by using highly efficient compressors, which allow adaptive defrost only when necessary, and thanks to the improved insulation thickness, capable of decreasing thermal dispersion.

Use of "green" cooling gases: we only use environment-friendly cooling mediums, fully respecting F-gas regulation.

Selection of long-lasting, recyclable, eco-friendly materials, low environment impact type such as aluminium and water-based foamed-in structures, for good manufacturing and end-of-working-life practices.

Fiocchetti's refrigerators and freezers can be prearranged with:

- shelves made of white plasticized steel, mounted on anti-
- aluminium drawers, fully extractible on telescopic slides, handy, lightweight, and durable, supplied either with internal dividers to arrange small medicines boxes neatly, or without any inner compartment to accommodate larger
- drawers made of wire steel, fully extractible on telescopic slides, with higher sides.
- baskets made of steel for larger models (i.e. 700 and 1500), also on telescopic slides, with high volume storage capacity.
- castors, the front ones with brakes, to easily move the refrigerators when needed.
- lock with key for ECT-F and ECT-F PLUS, or electric-digital type for ECT-F TOUCH.





Touch series of our refrigerators and freezers offers connectivity options either in a local net via the supplied Ethernet port and optional monitoring software (Fiocchetti Lan Supervisor), or from remote through a WI-FI module, or finally thanks to a Cloud based application (Fiocchetti Cold Eyes). This system includes features such as SMS and email delivery, a dedicated App and a comprehensive supervision at the distance for a prospective immediate solution of technical

Ask our sales department for further information!















# series MEDIKA® 2T

+2°C +15°C



Professional scientific refrigerators MEDIKA® 2T have been specifically designed for the sector of pharmacies: two settable temperature ranges, two cooling units and two independent chambers allow the best management of different types of stored

Each chamber can be independently set between +2° and +15° and has acoustic and visual alarms functions A historical log of these events can be visualized on the display.

The series spans from a capacity of 280 to 1500 litres, with triple layers glass doors, and allows to customize the desired internal fittings with shelves, drawers and/or extractible baskets, according to the various models.

MEDIKA® 2T series refrigerators fully comply to Pharmacopeia and to the European sector regulation. They are available with ECT-F, ECT-F PLUS ECT-F TOUCH controller, according to the required specifications.



500 2T





Medika 500 2T BERES BERES ----

**500** lt

(250+250)

L 720

P **760** 

H 2080

280 2T

400 2T



600 2T

\* in the ECT-F version

# series MEDIKA® 2T

+2°C +15°C



**800** lt (400+400)

L 1200

(60+60)

P 660

H 1960



800 2T





1500 2T

ECT-F ECT-F PLUS

Medika 800 2T 医神经管 医腹膜的 **电影电影 医电影性** Gesthern STREET, STREET, Service and Servic



(500+500) L 1440 (720+720)P 760 H 2080



### Medika 1500 2T

**1500** lt (750+750) L 1500 (750+750)P 845 H 2100



# series MEDIKA®

+2°C +15°C



The single-range temperature and single-chamber refrigerators belonging to **MEDIKA®**, series, which can be set from +2 to +15 °C, are available in a wide range of capacities to answer the most various demands of medicines and vaccine storage: from 100 litres for small facilities, up to 1500 litres for pharmaceutical warehouses or depots.

Inner space can be organized with shelves, drawers and/or baskets in various dimensions and type, according to the offered model.

Refrigerators are also available with solid door (LABOR series) and ECT-F, ECT-F PLUS or ECT-F TOUCH controller type: each range includes the comprehensive alarms notifications to answer the demands of the sector regulations, plus the specific features of each controller.















\* in the ECT-F version



DESCRIPTION OF

SERVICE STREET



# series **VISION & VISION 2T**

-15°C -20°C

+2°C +15°C -15°C -20°C



Refrigerators and combined refrigerators and freezers, with glasstype doors, developed for the storage and display of frozen or fresh foodstuffs for celiac-disease patients.

In combo units, the refrigerator chamber can be destined to the preservation of drugs The triple layer, low- heat emissive glass doors grant insulation while allowing the instant verification of the content, without any door opening. The ergonomic door handle in anodized aluminium, all-length type, assures a firm and safe handgrip. The adaptive defrost prevents any ice formation.

The safety level granted for your foodstuffs for celiac-disease patients is the same destined to drugs. Every model is available with ECT-F, ECT-F PLUS or ECT-F TOUCH controller.



700 400 2T 500 2T 700 2T



HUU











# undercounter and embedded refrigerators

# **DOCTOR 85**

0°C +20°C



Undercounter and embedded refrigerator, with solid door, display with alarm visible even during power failure.

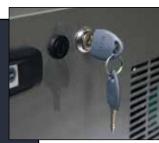
Compact, scientific refrigerator, undercounter, and which can be embedded, when necessary, our model **DOCTOR 85** has been especially designed to fit in when space is reduced and still drugs need to be stored at controlled temperature.

Our professional refrigerator **DOCTOR 85** joins professional components, safety devices and a comprehensive internal fitting: it offers nr 3 drawers with inner dividers, nr 1 shelf, lock with key, **ECT-F PLUS DIN** controller, with buffer batteries to signal alarms during power failure, anti-freeze safety device and dry contact to remote alarms signal.

The inner led light will turn on at door opening.



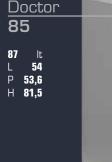




Reversible door-hinge side, ergonomic handle, removable in case necessary, when the refrigerator is to be embedded into existing furniture.

Safety key lock supplied as standard.

Inner and outer structure are made of plastic, thermoformed material, while the air ventilation zone is made of AISI 304 stainless steel.









# top level supervision electronic ect-f touch

# **ECT-F TOUCH**



Top-level supervising electronic joining the highest safety features and the easiest operation performance for everybody.

The refrigerators and freezers belonging to ECT-F TOUCH range offer temperatures and data recording over the last 10 years; information can be downloaded either on a pc through a supplied SD card (software included) or directly though the USB port situated on the front panel.

The 7" touch screen display is highly user-friendly and provides a comprehensive set of control and command functions, beside the access to the following recorded data:

- Real temperature, precision 0,1°. The set-point can be modified directly from the display.
- Real-time graph of the refrigerator temperature, customizable, to display up to 3 different probes curves (Ect-f thermostat, evaporator, condenser, and, if present, humidity probe, Dmlp Touch probe and additional product temperature simulation sensor or second chamber).

The multi-trace graph shows in real-time the temperature variations of the last 6 hours, with zoom-in features, when necessary.

- Energy consumption values (over the last 24h, instant, etc.)
- Status of the refrigerator
- Input power value. Status of batteries (optional)
- Icon-type commands to access the settings and user's panel light electric digital lock (optional) graph details.



Software Capture 5.2 supplied within the SD Card.



Temperatures daily graph with search options by date.



Instructions video for correct use and maintenance.

### **100% SAFETY**

Total control over the "refrigerator as a system" and data recording of every possible event connected to the life of the unit.

- Double feeding, double compressor relay and double defrost relay to grant the working of the equipment even in case of irreversible failure.
- Alarms signalization (temperature/open door/power loss) and failures
- Protection against high condenser temperature
- Protection against low evaporator temperature
- Protection against temperature-setting controller sensor
- Safety device: anti-freeze safety (for refrigerators only) and overheating
- Multi-users, selective management of functions and authorizations via customized passwords

### **100% DIAGNOSTIC**

Self-diagnostic, with functional tests and failures prevention.

- Notification of clogged condenser
- Notification of cooling system low in gas
- Notification of unbalanced sensors (discrepant temperature reading)
- Notification of pcb board excessive temperature
- Notification of low mains input

### **100% CONNECTIVITY**

- Data recording on SD card and inner flash memory, sampling every 30 sec.
- USB port for software update and data download
- Ethernet port RJ45 for connection to LAN
- Slot for SIM Card. (optional GSM module)
- DMLP Touch Digital Monitor module (optional) for continuous recording via independent PT100 sensor
- Mod-bus communication protocol for the connection to pre-existing supervision systems
- Wi-fi module, optional
- Additional monitoring systems:
- Cloud base monitoring: FIOCCHETTI COLD EYES, gateway with included micro-Sim for remote equipment monitoring, SMS delivery, email and dedicated app, data display and download
- For local net: FIOCCHETTI LAN SUPERVISOR allows the connection of up to 100 devices in the same local net, with visualization software and alarms via email





TUTORIAL function: integrated interface to display at any time the multimedia files for both users (instructions videos and use and maintenance manual) and service (electric wiring, exploded view files).

# ECT-F & ECT-F PLUS

Latest generation controllers, resolution 0,1° and alphanumeric, backlit display, menu available in 5 languages. Clear and detailed information regarding the working status of the equipment is available on the display, as well as all detected temperature anomalies.

A password, when activated, will identify two distinct access levels for the controller (i.e. User and Service), protecting working parameters, the ON/OFF (on request), as well as the operative set-point. The interactive display can be customized by the user and permit the instant check of all the settings for a quick troubleshooting (Doctor View function). Special functions such as Stop-On-Door and advanced adaptive defrost allow a highly advanced management of this phase, reducing thermal peak variations and consumption.

### Alarms signals for:

- Open door
- High temperature
- Low temperature
- Power failure (when power is back and if temperature has exceeded the high limit)
- Clogged condenser

Beside the features of ECT-F, ECT-F PLUS will also provide:

- Rechargeable back up batteries for up to 48H (24H for 2T ranges)
- Temperature display during power failure
- Min/max temperature data log
- Dry contact to remote alarms signalization





### Standard SPECIAL FUNCTIONS

- **Advanced defrost:** thanks to the continuous monitoring of minimum and maximum evaporator temperatures reached during each cooling cycle, the controller automatically triggers a defrost in case of excessive ice on the evaporator coil.

Advantages: lower power consumption and greater temperature homogeneity.

- **Stop on Door:** this function is activated when the door is opened. The compressor stops cooling preventing the excessive lowering of evaporator temperature.

Advantages: lower thermal shock after door opening

| CONTROLLER FEATURES                                | ECT-F                      | ECT-F<br>PLUS | ECT-F<br>TOUCH |
|--|----------------------------|---------------|----------------|
| Resolution (°C)                                    | 0,1                        | 0,1           | 0,1            |
| User interface                                     | LCD                        | LCD           | 7" Touchscreen |
| Acoustic and visual alarms                         | ✓                          | ✓             | ✓              |
| Power failure alarm (displayed when power is back) | ✓                          | ✓             | ✓              |
| Power failure alarm                                | X                          | ✓             | •              |
| Enregistrement alarmes et données                  | ✓                          | ✓             | ✓              |
| Alarms and events recording                        | X                          | ✓             | X              |
| Min/Max temperatures recording                     | X                          | •             | ✓              |
| Real-time temperature and data recording           | X                          | X             | ✓              |
| USB/SD/SIM ports                                   | X                          | X             | ✓              |
| Night & Day function                               | X                          | X             | $\checkmark$   |
| SAFETY   |                            |               | ,              |
| Dry contact to remote alarms signalization         | X                          | ✓             | ✓              |
| Antifreeze and overheating safety                  | X                          | •             | ✓              |
| Power and tension sensors                          | X                          | X             | ✓              |
| ALARMS AND FAILURE (ACOUSTIC AND VISUAL)           |                            |               |                |
| High/low temperature                               | ✓                          | ✓             | ✓              |
| High temperature caused by power failure           | X                          | ✓             | •              |
| Open door  | ✓                          | ✓             | ✓              |
| High temperature caused by open door               | X                          | X             | ✓              |
| Clogged condenser                                  | ✓                          | ✓             | ✓              |
| High condenser / Low evaporator temperature        | ✓                          | ✓             | ✓              |
| Temperature sensors error                          | ✓                          | ✓             | ✓              |
| DIAGNOSTIC   |                            |               | ,              |
| Tension and power monitoring of electric loads     | X                          | X             | ✓              |
| Self-diagnose tests on electric loads              | X                          | X             | ✓              |
| AVAILABLE ACCESSORIES                              |                            |               | ,              |
| Rechargeable back-up batteries                     | X                          | ✓             | •              |
| Independent recording system DMLP                  | X                          | X             | •              |
| Electric-digital key lock                          | X                          | X             | •              |
| Mechanical key lock                                | •                          | •             | X              |
| Module GSM - Module Wi-Fi                          | X                          | X             | •              |
| Cloud monitoring system (Fiocchetti Cold Eyes)     | X                          | X             | •              |
| Connection to an external monitoring system        | X                          | Modbus RTU    | Modbus TCP/IP  |
| Conformity DIN 13277 for drugs                     | X                          | •             | •              |
|  | <ul><li>Optional</li></ul> | Standard X    | Not available  |

### APPLICATION FIELDS



PHARMACIES AND VACCINES



HOSPITAL, MEDICAL AND LABORATORY



PRIVATE CLINICS AND MEDICAL PRACTICES



LIFESCIENCE AND INDUSTRY



TRASFUSION BLOOD CONNECTIVITY
BANKS AND PLASMA AND MONITORING
FREEZERS SOLUTIONS





MORTUARY CHAMBERS AND REFRIGERATORS



REFRIGERATORS FOR TRANSPORT













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