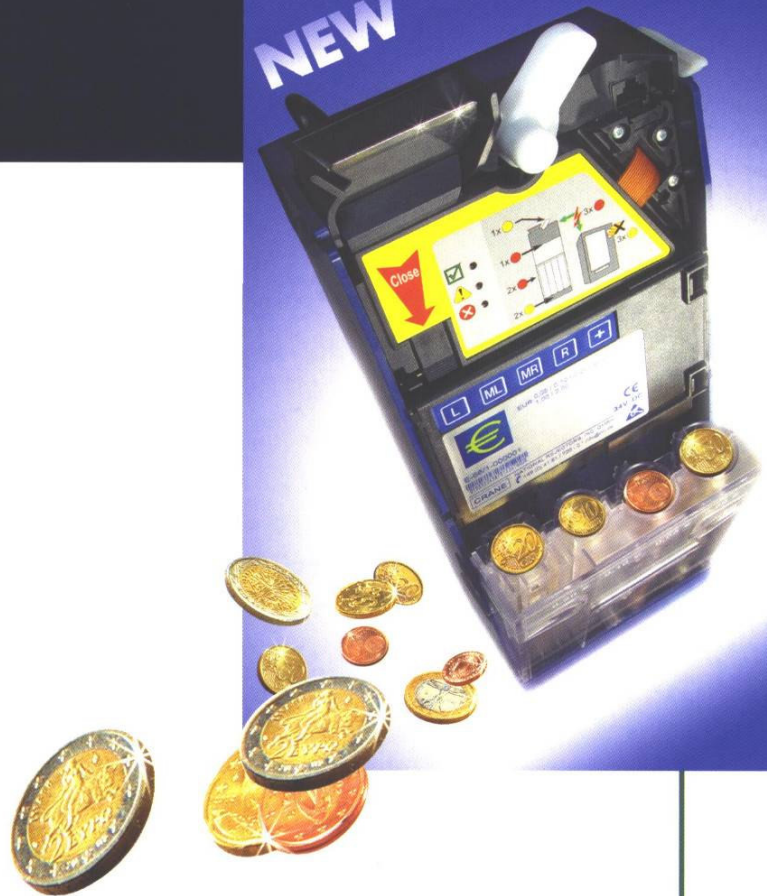


NEW



Electronic Change-giver **PROTEUS E-66**

A MDB-Change-giver
for EUROland



a Crane Co. company

The **Advantages** at a glance

- MDB-interface
- For EUROland
- Voltage range of <11 – 45 volts DC (Battery version optional)
- Robust due to its compact modular design
- Simple operation (Plug&Play)
- Pay-out module in the form of a cartridge
- Colour scheme with blue housing, colourful pictograms and white operating elements
- 16 coin channels in one data block, plus four shadow channels
- 8pin Western plug (programme updates, coin downloads & set-ups)
- Token teaching in the vending machine
- Simple diagnostics by means of coloured LEDs (traffic-light-type control system)
- Protection against string manipulation provided by a lever, comb and software
- The coin cartridge can be removed when full
- Manual filling is carried out by swivelling the cartridge out
- Monitoring for correct content of the tubes by four level sensors per tube
- Function monitoring of the level sensors
- Transparent cover for the cashbox channel
- Protected circuit boards
- The "Float Mode" provides for simple settlement of accounts with vending machines
- Consistent protection against the effects of liquids
- Wake-up line (Pin3) supported
- Completely with SMD-technology



The PROTEUS E-66 – a new Product from NRI!

Designed for **EUROLand**

The EURO is now the valid legal tender in twelve member countries of the EU. This will soon be extended to other countries. NRI has reacted to this with a new member in the family of NRI changegivers: the PROTEUS E-66.

Based on the tried and tested design of equipment in NRI's changegiver series, the PROTEUS E-66 was created as an additional product that would prove to be even more user- and service-friendly. Borrowing the FT-measuring technology from the G-40 improved its coin recognition even more.

The colour of the unit being blue, the PROTEUS E-66 stands for a European product that is to spread throughout all of EUROLand.



With **User Interface**

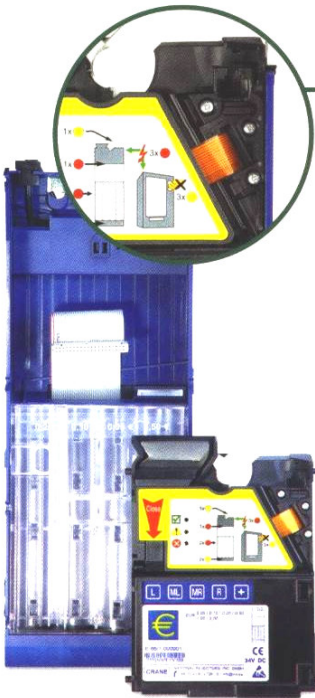
Interactions are carried out in a user-friendly manner via an 8pin Western plug that is accessible from the front in order to carry out configurations, programme updates and coin downloads easily and quickly.

With **MDB serial Interface**

There is going to be a PROTEUS E-66 with an MDB-interface, which is sure to be a trendsetting member of our family of changegivers. This, of course, will be based on the latest Version 3 of the MDB-standard. Data transmission is already possible between the vending machine and the changegiver by means of FTL, making adaptation easy for future technologies, such as telemetry.

Options

Security is a subject of utmost importance to NRI. An important quality parameter for changegivers is a sophisticated security system against manipulation. Additional protection is provided if required by an optical detection system for string manipulation in the G-40.4000-EMP module. Protection against fraud is also provided by the hardness sensor in the G-40.4000 module. It reliably detects counterfeit coins made of soft metals or similar materials.

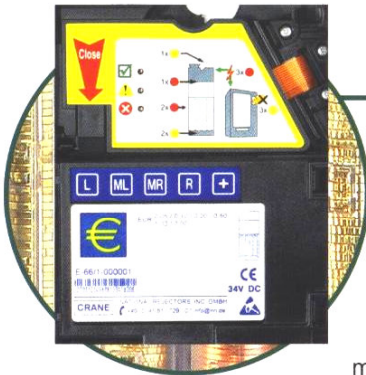


Simple Operation

Equipment being simple to operate is also always a point that plays a decisive role for the user. Whether empty or filled, a recessed grip makes the completely transparent tube cartridge in the PROTEUS E-66 easy to remove and replace. When required, the tube cartridge simply swivels out for manual refilling. Four sensors make it possible to read the levels of the tube cartridges: at "empty", 50%, 75% and 100%. The information obtained from this can be used to correct the coin counter. A new cartridge is used for various pay-out combinations. The built-in adaptor board, which cannot be reached until the rear cover is removed, is especially well protected. The coin validator locking device is attached separately.



Simple Diagnostics



The PROTEUS E-66's design and colour scheme support its simple handling, in respect of diagnostics. The diagnostics scheme developed by NRI is broken down into three stages. Coloured LEDs in the validator module provide information about the status by means of blink codes. In the second stage of diagnostics, one can use the G-46's programming module to display codes for various conditions in which the equipment might be. In the third stage of diagnostics, a Palm handheld is used to conveniently make settings on site and obtain indications about such conditions. All the moving service parts are colour-coded for easy understanding.

The Palm and WinEMP Adjustment Module

From our comprehensive experience in the market, we decided to put the control keys and display in an external adjustment module. You only attach it to the G-46 change giver when you want to read out data or make entries. This prevents any unwanted input being made by others.

Using a programme developed by NRI, WinEMP, along with a Palm handheld, it is not only possible to quickly and flexibly configure settings on site but also to do programme updates and coin downloads for the validator at any time. The programme WinEMP identifies the validator connected along with the equipment's data and displays this on the screen of a standard PC. WinEMP is also the basis for PalmEMP.



The Float Function

The Float function is the simplest form of stocktaking. Since simple counting of the contents of the cartridge is only rarely sufficient to identify the stock, using the Float function you get a precisely defined, unchanged amount of inventory (or "float level") in the tubes. During normal operation, however, the float level set is ignored, and the entire capacity of the cartridge can be used to optimise the inventory of change money.

Float-Up

Filling of the tubes only up to the individually set amount of inventory in the tubes (float level: with filling of the cartridge through the validators)

Float-Down

Automatic emptying of the various tubes to the individually set amount of inventory in the tubes (float level: with manual filling of the cartridge)

The Level Sensors

To make the content of the cartridge perceptible to the operator at all times and to enable it to be called up at any time, four sensors monitor the level of the cartridge, doing so for each tube individually: **1** Empty sensor at 10 % of tube capacity **2** 50 % sensor at half of tube capacity **3** 75 % sensor at three-quarters of tube capacity **4** Full sensor at 100 % of tube capacity.

These sensors function use an infrared impulse technology, thus reducing the influence of soiling and extraneous light. In addition to this, the functioning of all the sensors is continuously monitored.

Filling the Cartridge

The cartridge can be filled in four ways:

- 1** By activating the vending machine's filling mode; the coins are inserted through the validator and registered both by the vending machine's control system and by the tube counters.
- 2** Activating the filling mode in the PROTEUS E-66 by pressing the "+" key on the change giver; the coins are accepted and registered by tube counters.
- 3** Direct filling by swivelling out the cartridge and filling the tubes with coins. The tube counters are corrected automatically.
- 4** Exchanging the existing cartridge for a pre-filled cartridge. The tube counters are corrected automatically.



Electronic Change giver

PROTEUS E-66

Technical Specifications

Model No.	E-66.4880
Interface	MDB-serial
Rated voltage	24 VDC
Power consumption	<20 VA
Voltage range	<11 – 45 VDC

Current consumption

Standby	<55mA
Average during pay-out	<230mA
Average during measurement	<100mA

Coin channels	16 + 4
Coin diameter	15–33 mm
Coin thickness	1, 2–3, 3 mm
Token acceptance	max. 3 tokens
Number of tubes	4
Temperature range	-25° to +70° C
Relative humidity	max. 90 %

Dimensions

Height	380 mm
Width	133,5 mm
Depth	max. 80 mm
Weight	1,6 kg

Options

String sensor	•
Hardness sensor	•
Adjustment module	•
Battery version	•

We reserve the right to make technical alterations.

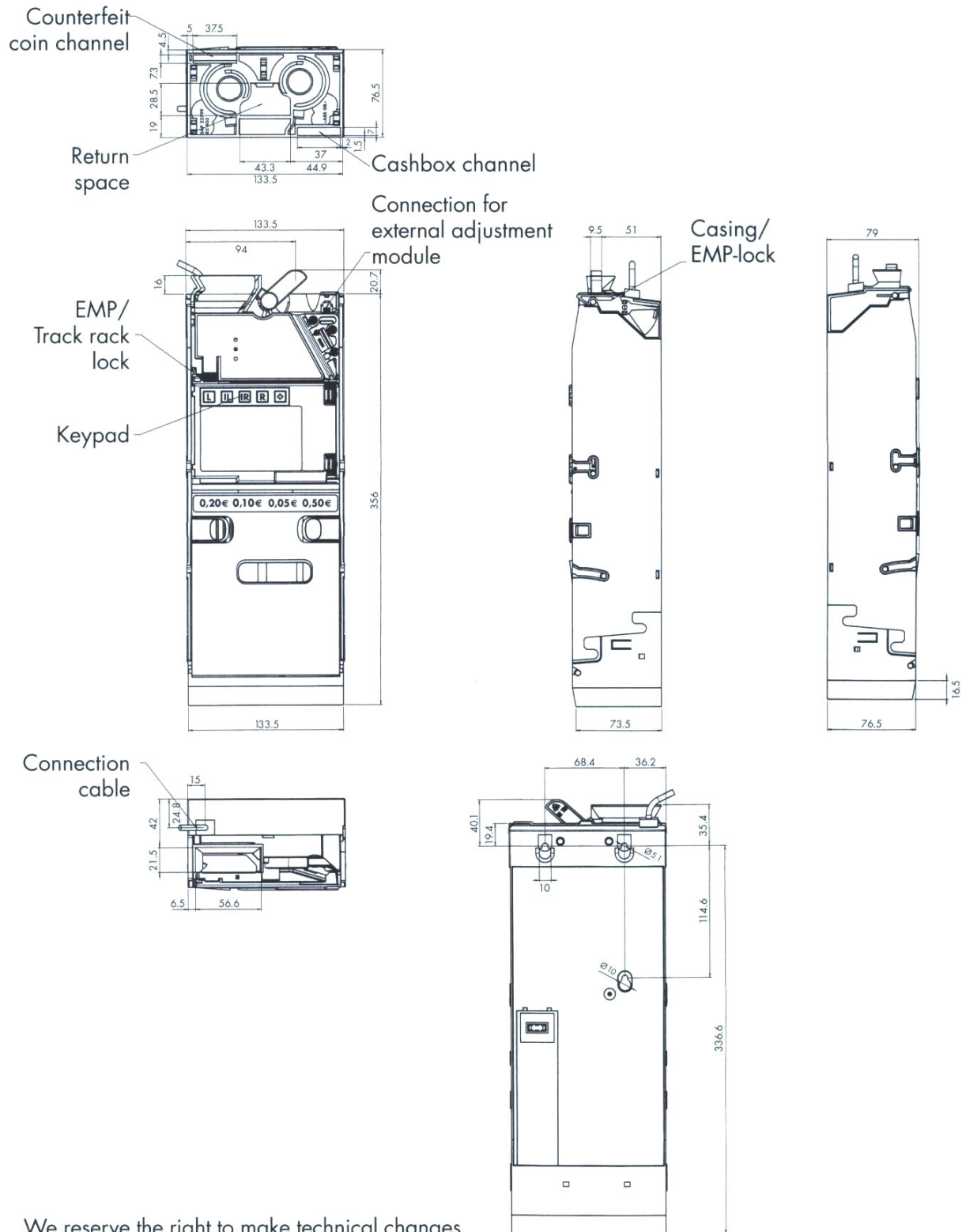


Let's keep up the **contact** – the future with NRI

Our customers are also our best advisors. Ideas and suggestions for improvement are an essential aid to us in designing all NRI products to be as user-friendly and reliable as possible. In this manner we are always able to apply our know-how on the mark for your expectations and requirements.

NRI offers training courses and seminars world-wide, at which we inform you about the latest developments in technology as well as about the wide range of ways our equipment can be used. It goes without saying that we are always willing to listen to you at any time – just ring us up, fax us or send us an e-mail.

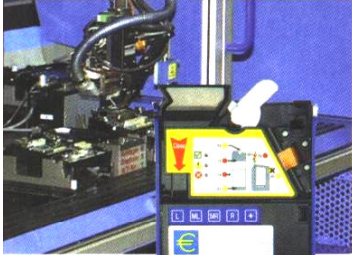
Electronic Changeover PROTEUS E-66



We reserve the right to make technical changes.



Coin validators
for all fields
of application



Electronic change
machine
PROTEUS E-66



NRI Training Courses



Cashless systems/
cash card



State-of-the-art engineering Diverse range of products

Branch offices in Europe:

NRI Iberica S.A.
Ramon Turro, 91
Planta 2
E - 08005 Barcelona
Tel: +34/933 00 41 63
Fax: +34/933 09 80 51
E-Mail: nrispca@retemail.es
Website: www.nri.de

NRI France
4, rue de Bâle
F - 68180 Horbourg-Wihr
Tel: +33/389 21 73 73
Fax: +33/389 21 73 74
E-Mail: administration@nri-france.fr
Website: www.nri.de

NRI UK
Unit 7, The Pavilion
Amber Close, Amington Ind. Estate
GB - Tamworth B77 4RP
Staffordshire
Tel: +44/1827-62696
Fax: +44/1827-62389
E-Mail: sales@nri.uk.com
Website: www.nri.uk.com

ELODECO B.V.
Noordereinde 319 - 1243 JX 's-Graveland
tel.: (035) 656 04 63 - fax: (035) 656 08 34
e-mail: info@eldeco.nl - internet: www.eldeco.nl



a Crane Co. company

NATIONAL REJECTORS, INC. GMBH · D-21614 Buxtehude · Zum Fruchthof 6
Telephone: +49 4161/729-0 · Fax: +49 4161/729-115 · Internet: www.nri.de · E-mail: info@nri.de

12/2003 · GB · #2967
TEAMNORDEN DE