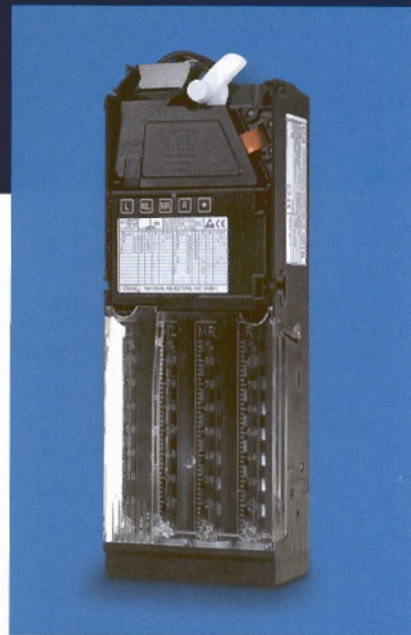


Electronic Changeovers **G-46**

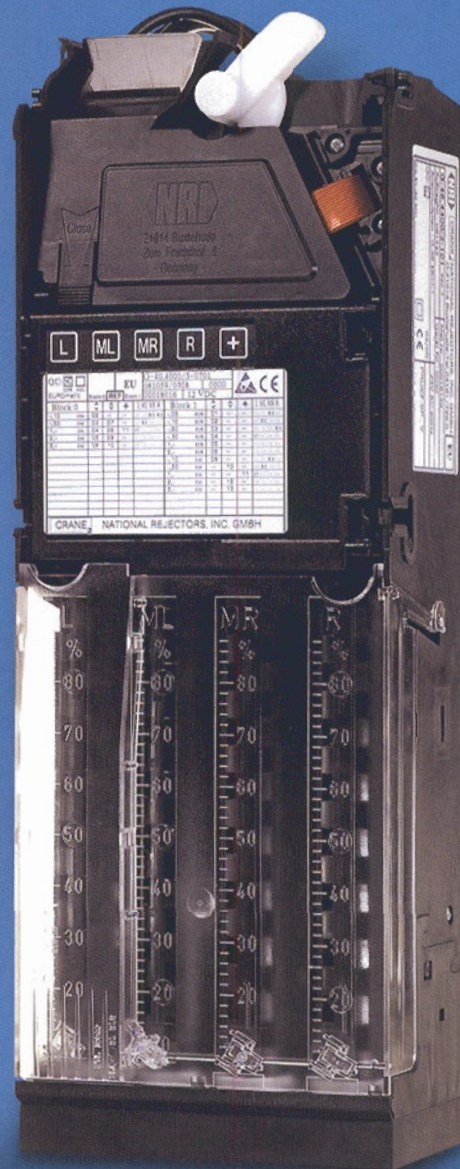
The Perfect Interaction between
Engineering and Economy



a Crane Co. company

The Advantages at a glance

- Palm programming module
- Token teaching
- Bimetallic coins
- Battery-operated version
- Coin validation of the highest standards
- Greatly increased change capacity due to four extra-long tubes
- 2x16 independent coin channels
- Active, 5-way sorting
- Pay-out set independent of coins
- String sensor (optional)
- Hardness sensor (optional)
- Expanded temperature range
-25°C to +70°C
- Extra protection against moisture
- Modular design



The G-46 Electronic Change giver

Planning for the future

The four-tube G-46 Change giver from the NRI organisation – based on decades of experience, constitutes a global plan for the future of coin management in vending machines. With over forty years of experience in coin validation technology, it has always been a concern of the NRI organisation to focus on current market developments, thus turning them into new and innovative products. Such products have always fitted into the overall planning for comprehensive accounting systems. As a result, our customers have always and still can be sure not only of merely obtaining a component for their vending machines but also of being comprehensively supplied and provided with support.

The Performance Capability of the G-46

With the G-46 it is our intention to pick up the thread of commitment and present to the market a product that not only exceeds the performance capability of our previous products but actually sets new standards for the overall scope of products and services provided. This coin validation module is based on the market-tested G-40 electronic validator, the precision of which was designed for slot machines. With 2x16 coin channels and an active shutter-type sorting system, the G-46 provides a maximum of flexibility and enables nearly any customer-specific adaptation.

Made-to-measure Adaptation

The G-46's four tube positions can be individually adapted with a set of different tubes for each currency and coin denomination.

Coin-independence for currency changing

The pay-out set, which is controlled by two motors, is independent from the coins and so does not have to be altered when the tubes or currency are changed. The programme of possible options is completed by a data collection system, a peripheral interface, an adjustment module as well as sensors for strings and hardness detection.

Individuality provided by a modular design

On the whole the G-46's modular design is adapted to customers' individual requirements. They put the equipment's necessary scope of performance together themselves, thus determining its price to a decisive degree.

Options

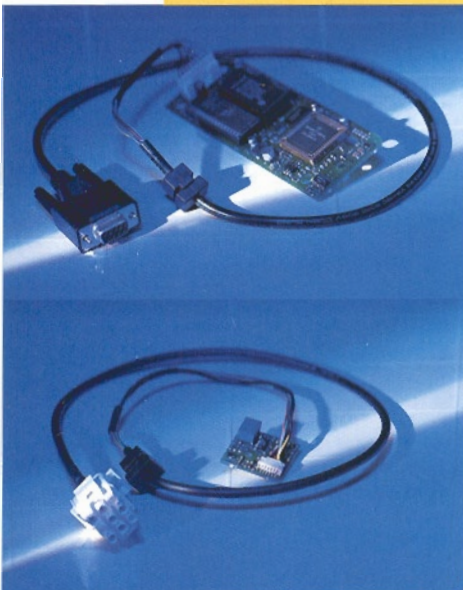
The G-46's modular design means you only pay for what you really need! A number of options make it possible for you to optimally adapt the equipment to your individual requirements.



Palm Adjustment Module

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

Using a programme developed by NRI, WinEMP, along with a Palm handheld, it is possible at any time to carry out configuration of the adjustment programme as well as programme updates and coin downloads for the validator. Costs are saved at the same time, because only one adjustment module is needed per operator!



Auditing Unit

For customers who want additional recording of data on turnover and vending machines at certain intervals, there is a module that is very simple to add, which makes it possible to read out data via an external connection cable using a printer or data collector.

Internal Interface Module

For users planning combined operation for certain interfaces with other peripheral devices such as card readers or banknote validators, these can also be attached via the interface module, which is simple to add on.

External Display

When a vending machine does not have a display of its own for the sums of money, this can be done via an optional 5-digit display with a serial interface.

String Sensor

The string sensor detects manipulation by strings, doing so by means of an optical scanning in the G-40.4000-EMP module. For this reason, retrofitting is not possible for this option!

Hardness Sensor

The hardness sensor, which is also located in the G-40.4000 module, reliably detects counterfeit coins made of soft metals and similar materials. Retrofitting is not possible for this option either!

Interfaces

The G-46 four-tube change giver is available for all commonly used vending machine interfaces. The Multi-Interface option enables combinations of different interfaces.

MDB Serial Interface

This interface was developed because of an initiative supported essentially by COCA-COLA. The aim is to keep the coin control devices technically as simple as possible and thus inexpensive, instead putting the intelligence in the control system for the vending machine.

BDV Serial Interface

This is a further development of the Simplex V with an extended scope of performance. This interface is widespread primarily in the German market.

Simplex V Serial Interface

This interface, also known as the Executive or Protocol A, replaced parallel interfaces in vending machines in the European and North American segments in the mid-eighties. With it, the coin control device assumes the master function in the vending machine.

Four-price parallel interface with relay output

This interface is required for electro-mechanical vending machines with old designs and can process up to four different prices.

Four-price parallel interface with transistor output

This interface is primarily used in cold drink vending machines and processes up to four different prices.

Four-price parallel interface for API-applications with relay output

This interface is primarily widespread in the Far East.
(API = Available Product Information)

JVI Serial Interface

This interface is primarily widespread in Japan and the Far East. This protocol can only process predetermined coin values.
(JVI = Japan Vending Interface)

The **G-46** Electronic Change giver

Model No.	G-46.4000/3	G-46.4100/3	G-46.4300/3	G-46.4400/3	G-46.4500/3	G-46.4800/3	G-46.4880/3
Interface	4-Price	4-Price API	JVI	Simplex V	4-Price Transistor output	BDV	MDB
	parallel	parallel	serial	serial	parallel	serial	serial
Power supply	115/230 VAC	110-240 V		24 VAC	24 VAC	24 V	24 VDC
	24 VAC			24 VDC	24 VDC	24 V	24 VDC
Mains frequency	50-60 Hz	50-60 Hz		50-60 Hz	50-60 Hz		
Power consumption	<20 VA	<20 VA	<20 VA	<20 VA	<20 VA	<20 VA	<20 VA
Breaking capacity	240 V, 2.5 A	240 V, 2.5 A					
Coin channels	2x16	2x16	2x16	2x16	2x16	2x16	2x16
Coin diameters	15-33 mm	15-33 mm	15-33 mm	15-33 mm	15-33 mm	15-33 mm	15-33 mm
Coin thickness	1, 2-3, 3 mm	1, 2-3, 3 mm	1, 2-3, 3 mm	1, 2-3, 3 mm	1, 2-3, 3 mm	1, 2-3, 3 mm	1, 2-3, 3 mm
Token acceptance	max. 3 tokens	max. 3 tokens	max. 3 tokens	max. 3 tokens	max. 3 tokens	max. 3 tokens	max. 3 tokens
Maximum credit	99.999	99.999		65.000 xkl. M.	99.999	99.999	
Number of tubes	4	4	4	4	4	4	4
Temperature range	-25° to +70° C	-25° to +70° C	-25° to +70° C	-25° to +70° C	-25° to +70° C	-25° to +70° C	-25° to +70° C
Relative humidity	max. 90 %	max. 90 %	max. 90 %	max. 90 %	max. 90 %	max. 90 %	max. 90 %

Dimensions

Height	380 mm	380 mm	380 mm	380 mm	380 mm	380 mm	380 mm
Width	133,5 mm	133,5 mm	133,5 mm	133,5 mm	133,5 mm	133,5 mm	133,5 mm
Depth	max. 80 mm	max. 80 mm	max. 80 mm	max. 80 mm	max. 80 mm	max. 80 mm	max. 80mm

Options

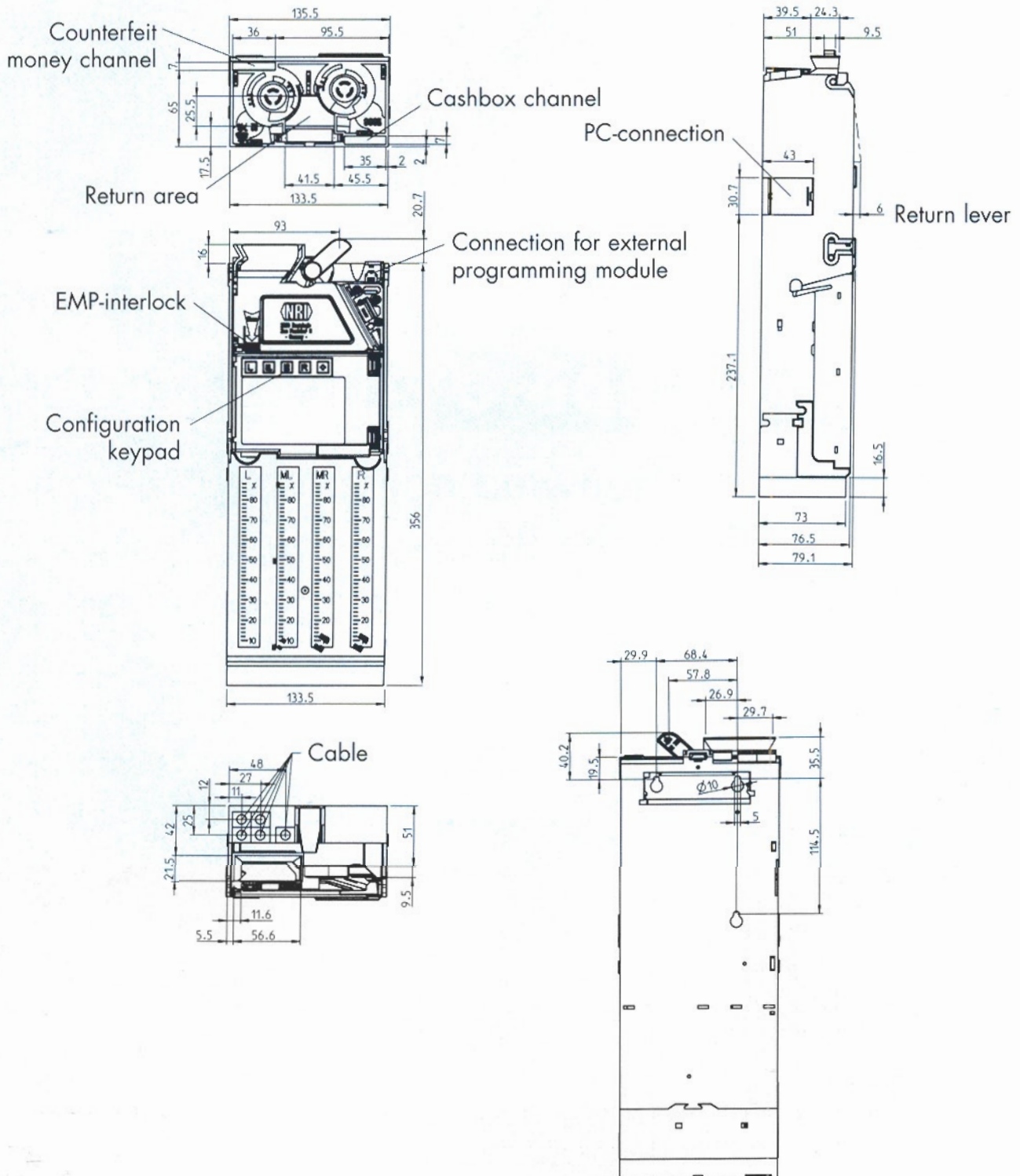
String sensor	•	•	•	•	•	•	•
Hardness sensor	•	•	•	•	•	•	•
Auditing unit	•	•	-	•	•	•	-
Adjustment module	•	•	•	•	•	•	•
Internal interface	•	•	-	•	•	•	-
External display	•	•	-	•	•	•	-
Printer	•	•	-	•	•	•	-
MDE-terminal	•	•	-	•	•	•	-

We reserve the right to make technical changes.

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 as user-friendly and as reliable as possible. In this manner we are always able to apply our know-how on target to meet 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 Changeliver



We reserve the right to make technical changes.