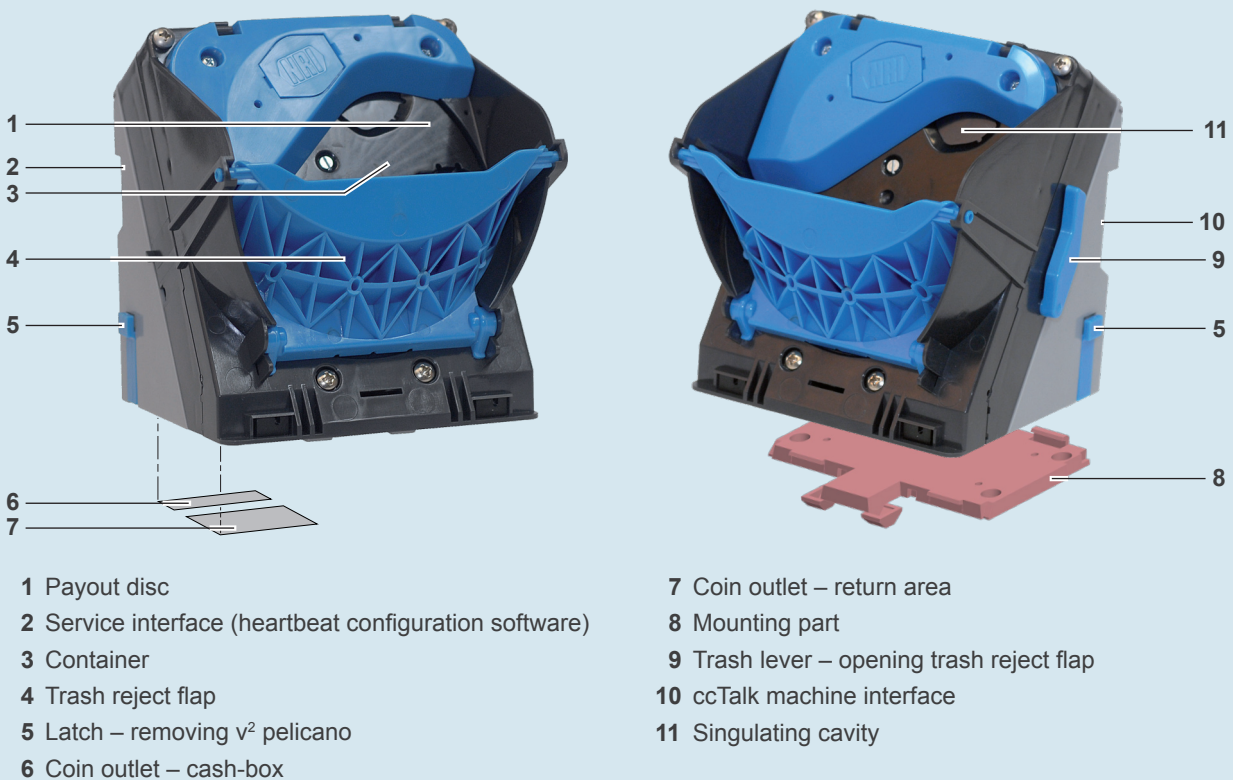# Datasheet

v² pelicano

The v² pelicano is the latest additional to our coin validator family achieving 4 coins per second validation and acceptance rates through a bulk mixed coin input. This unit can be configured with our CX Recycler or can be used and configured with our h² nano hopper family or other coin hopper solutions.

Overview

1 Payout disc	**7** Coin outlet – return area
2 Service interface (heartbeat configuration software)	**8** Mounting part
3 Container	**9** Trash lever – opening trash reject flap
4 Trash reject flap	**10** ccTalk machine interface
5 Latch – removing v² pelicano	**11** Singulating cavity
6 Coin outlet – cash-box	

Models

Depending on the diameter of the coins to be handled the v² pelicano is available with different payout discs:

- Disc 1 for 15–26.9mm coins
- Disc 2 for 16–28.8mm coins
- Disc 3 for 17–31mm coins
- Disc 4 for 18–32.7mm coins
- Further discs projected

Properties and application

- Applications for the v^2 pelicano are:
  – Retail self checkout machines
  – Self service kiosks
  – Transportation fare collection
  – Transportation toll collection
  – Retail payment solutions
- Incorporates 2 coin processing units in one chassis:
  – Coin singulator
  – Coin validator
- Input up to 20 different coins at once
- Coin detection of max. 16 different coins
- NRI multi-frequency measurement technology (MFT) with 6-pin inductive sensor including 3 windings per coil
- 24 measurements are analysed for each coin validated
- Acceptance and cash-box monitoring for manipulation protection
- Acceptance speed of up to 4 coins per second, adjustable with PC configuration software
- Auto-maintenance function removes all foreign objects by opening the trash reject flap after each transaction upon request of the machine
- Service-friendly mounting part for easy plug in & out
- Control of s^2 HSD-3000 3-way high-speed sorter (option)

Function

Once the customer inputs up to 20 mixed or up to 10 of the largest coins (depending on the coin size) into the container, the v^2 pelicano sends a coin present signal to the control unit. The control unit responds with a start signal, the v^2 pelicano starts rotating the payout disc in order to isolate the coins using the singulating cavities in the payout disc. Within these cavities each coin is validated.

If the measured values of the coin are within the acceptance band programmed, the coin is accepted for sale as soon as it has passed the acceptance gate. If the measured values exceed the acceptance band the coin is rejected and directed into the return area.

The v^2 pelicano communicates the value of each accepted coin to the control unit. When the container is empty, the control unit may stop the payout disc.

After each transaction the v^2 pelicano opens and closes its trash reject flap to remove all foreign objects upon request of the machine.

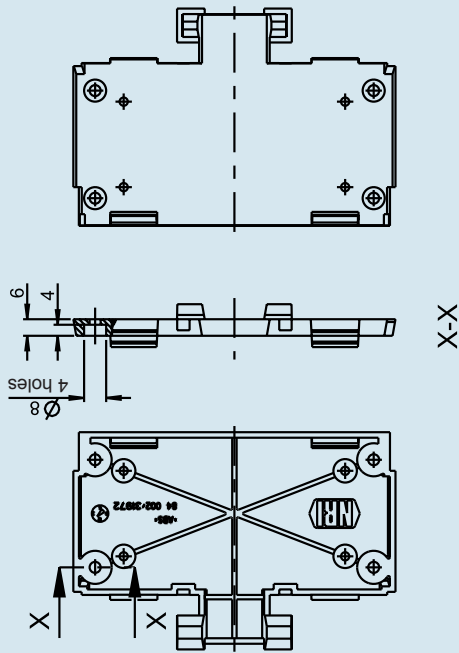**i** *For details on the v^2 pelicano please refer to the manual.*

Technical data

Supply voltage	12V to 24V DC ±10%
Power consumption	Standby: 80mA, Operation: 700mA max. at 12V, 500mA max. at 24V
Temperature range	0°C up to 60°C
Temperature change	Max. 0.2°C/min.
Relative humidity	Up to 90%
Condensation	Not permitted
Coin acceptance	16 coin types max. in 24 channels Diameter: 15–32.7mm (depending on payout disc) Thickness: 1.0–3.3mm, other coin sizes on request Speed: up to 4 coins/s
Dimensions	Height: 141.2mm Width: 131.7mm Depth: 125.6mm (133.6mm min. with open trash reject flap)
Mounting position	Vertical, max. deviation: ± 2°
Machine interface	Serial ccTalk interface:

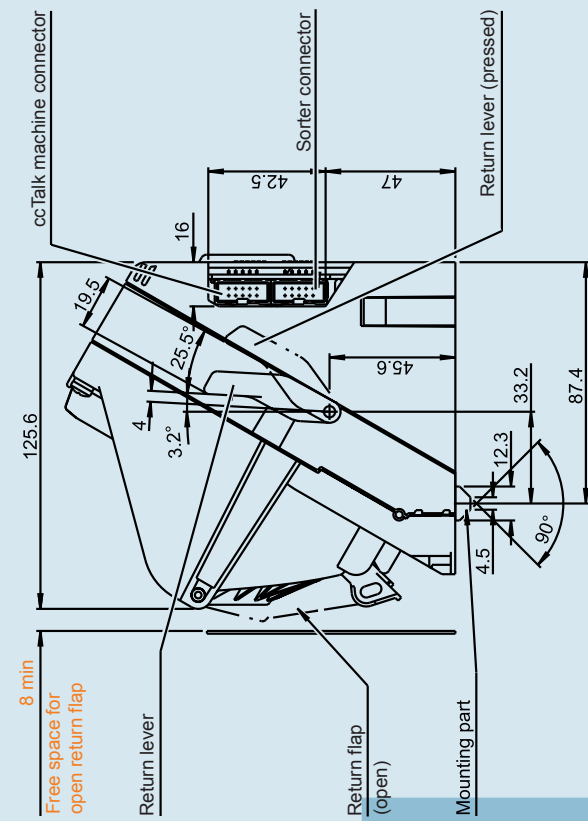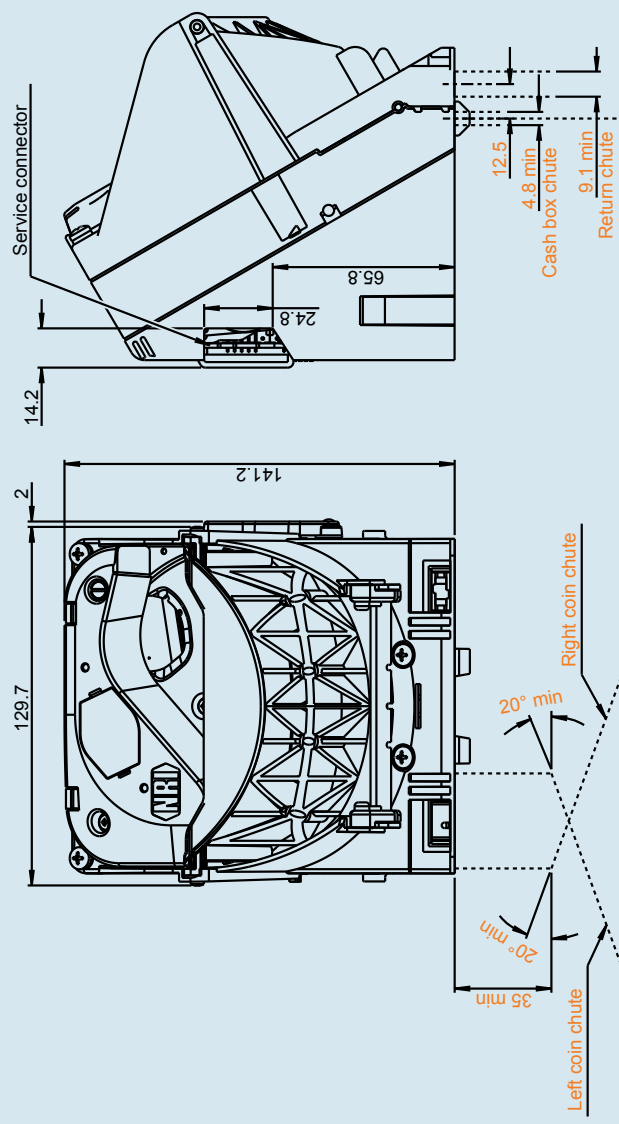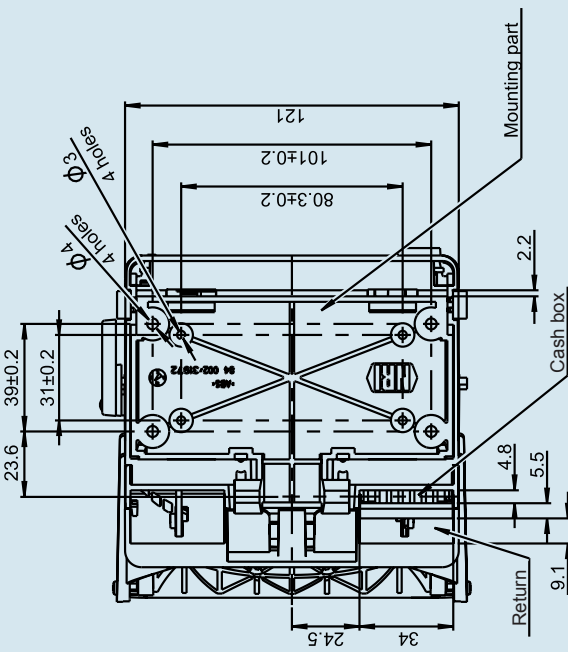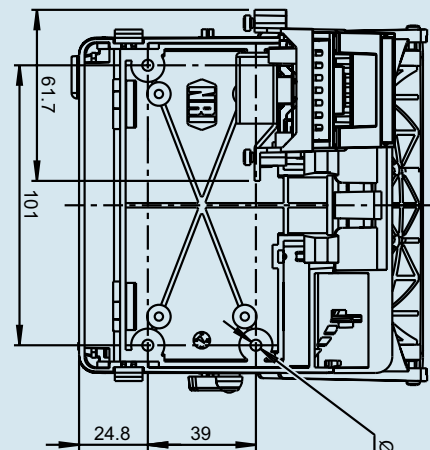|	
Pin 1 Data	Pin 6 nc
Pin 2 GND	Pin 7 12V DC supply
Pin 3 nc	Pin 8 GND
Pin 4 GND	Pin 9 nc
Pin 5 Reset	Pin 10 nc

Mounting dimensions

v² pelicano

Mounting part

X-X

4 holes
Ø 8
6
4

NRI
84 002·30872
ABS

X
X

Service connector

14.2

12.5
4.8 min
Cash box chute
9.1 min
Return chute

65.8
24.8

141.2
2
129.7

Right coin chute
20° min
20° min
35 min
Left coin chute

Mounting part
121
101±0.2
80.3±0.2
Ø 3
4 holes
Ø 4
4 holes
39±0.2
31±0.2
23.6
NRI
84 002·30872
ABS
2.2
Cash box
4.8
5.5
9.1
Return
24.5
34

ccTalk machine connector
Sorter connector
Return lever (pressed)
16
42.5
47
19.5
25.5°
4
3.2°
45.6
33.2
87.4
12.3
90°
4.5
125.6
8 min
Free space for
open return flap
Return lever
Return flap
(open)
Mounting part

58

15.6

141.2

70.5

48.4

17.3

60.6

61.7

101

24.8

39

Ø 4
4 mounting holes
(see section "v² pelicano")

83.1

5.9

2.7

30.7

24.1

125.6

26.5

21.5

49.7

81.7

Mounting surface

Basic boss axis

Applications with s² HSD-3000, NRI mounting bracket and return chute

Basic boss axis

Mounting bracket surface

80.2

48.2

39.5

21.5

26.5

24.1

30.7

125.6

2.7

4.6

81.8

4 mounting holes
(see section "v² pelicano")

Ø 4.2 H12 ($^{+0.12}_{0}$)

39±0.12

25

10

101±0.12

61.7

0.5

142.7

60.5

17.3

48.4

70.5

14.1

58
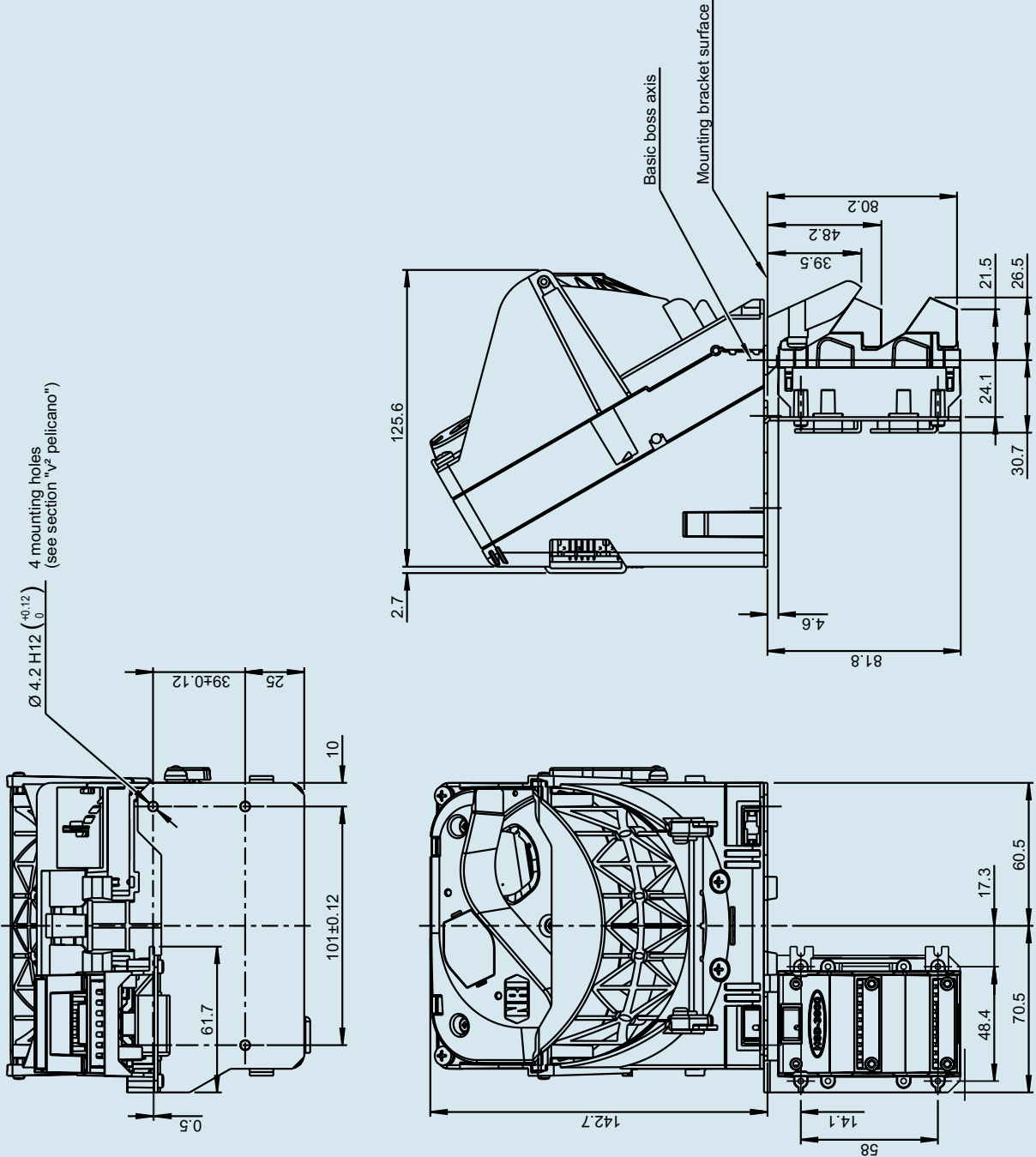
Accessories

- 10-pole ccTalk ribbon cable, 400mm (order no. 2569)
- 3-way high-speed sorting
  - s^2 HSD-3000 sorter (pelicano version) (order no. 30500)
  - Optional mounting bracket (order no. 43013) plus fixing screws (4x self-tapping pan head, Ø 2.9x9.5, (order no. 28836))
  - Optional return chute (order no. 43014) plus fixing screws (2x self-tapping countersunk head Ø 2.9x6.5, (order no. 38475))
- For PC application:
  - ccTalk RS-232 converter G-55.0492 (order no. 27643)
  - ccTalk USB converter G-55.0495 (order no. 27844)
  - 24V power pack (order no. 24684) with
    » Euro plug connecting cable (order no. 24683) or
    » connecting cable for USA (order no. 24853) or
    » Euro plug connecting cable with international adapters (order no. 24683 + 22502)
  - ccTalk demo software
    to test PC functions of ccTalk validators (freeware at **www.cranepi.com, NRI Support**)
  - Virtual COM port (VCP) driver
    for USB operation (freeware at **www.cranepi.com, NRI Support**)
- For PC configuration: heartbeat/WinEMP basic module (order no. 28535)
  - Chip card (ID-000 format) with basic heartbeat license for the purpose of diagnostics and individual configuration of all NRI coin validators integrated in a small SIM card reader (USB)
  - Power pack
  - USB PC connecting cable
  - Option: Additional data block download license to update complete coin and device configuration (in preparation)
  - What can be set?
    » Payout speed
    » Coin acceptance bands/tolerances
    » Teaching of new coins (generating new acceptance band)
    » Coin values etc.
    » Sorter configuration
    » Diagnostics

Additional technical documentation

All NRI product descriptions, e.g., for other coin validators or changers are available as PDF at **www.cranepi.com, NRI Support**.

> ℹ️ *A detailed description of the ccTalk interface/protocol you will find in the "ccTalk Serial Communication Protocol, Generic Specification" (www.cctalk.org). An extra v^2 pelicano ccTalk specification is available on request.*