



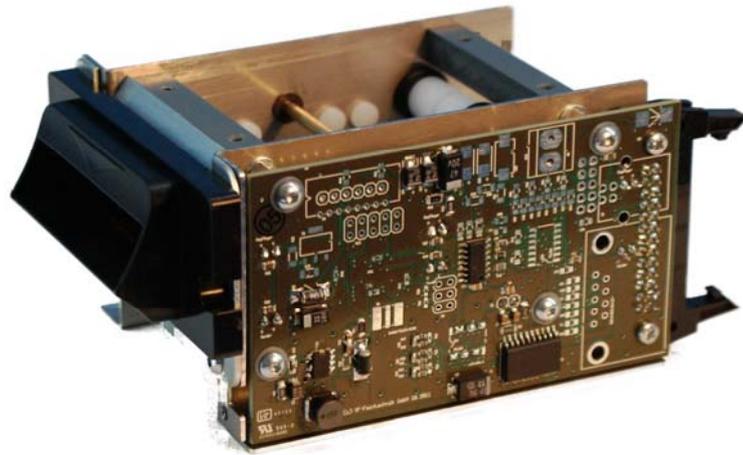
CCR x

Specification

Motor-Driven Card-Reader

for

Magnetic-Stripe-Cards and RFID-Technologies



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1. Current Revision Status

Rev.	Descriptions	Date	Signet
00	preliminary description	21 Nov. 2011	wri
01	Additional Signals for Mover-Version	05 March 2012	wri



2. Description Motor-Driven Card-Reader CCRx

The card reader with rear ejection possibility for versatile usage in vending machines, gate- barrier- and access control systems; -and a plenty of furthermore applications.

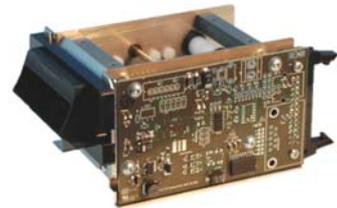
Handles 3-track-magnetic cards and/or optional RFID-cards

Optional accessories:

- Card slot
- electromagnetically lockable fine mechanical shutter
- at the drive rolls opposite are rotational rolls for counter pressure, so there is only rolling friction - no sliding friction at the card
- card drive power transmission from the geared motor with drive belt
- compact, robust and corrosion resistance construction and the light weight allow easy installation in any terminal or casing indoors and outdoors
- proved construction guarantees a low-maintenance operation and durability



drawing 1



drawing 2



3. Available Versions

Order Number	Read Track	RFID	Building
CCR 1-01	1+2+3	primed	Mouth Piece Version "V" with mechanical Shutter (see drawing 1)
CCR 1-02	1+2+3	primed	Mouth Piece Version "V" with electronic Shutter (see drawing 1)
CCR 1-03	1+2+3	primed	Mouth Piece Version "M" (see drawing 2)
CCR 0-01	Mover	primed	Mouth Piece Version "V" with mechanical Shutter (see drawing 1)
CCR 0-02	Mover	primed	Mouth Piece Version "V" with electronic Shutter (see drawing 1)
CCR APP-01	-	APP (Multi 13,56MHz Module)	Mouth Piece Version "V" with mechanical Shutter (see drawing 1)
CCR APP-02	-	APP (Multi 13,56MHz Module)	Mouth Piece Version "V" with electronic Shutter (see drawing 1)



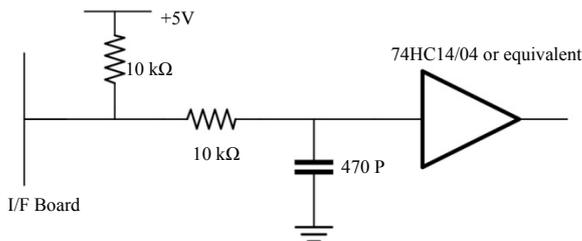
4. Specification

Recommended card type	optional:	Magnetic card ISO7810, 7811/1-5, 7812, 7813, ff. Optional Multi 13,56MHz RFID Module (see separate specification)
Recommended card thickness (min. - max.)		0,7 - 0,9 mm
Recording method		FM decoding (F2F)
Card driving speed		Ca. 34 cm/sec.
Motor type		DC Motor
Service life (depending at environmental influences)	Magnetic head:	Ca. 1 000 000 passes*
	Transport mechanic:	Ca. 1 000 000 passes*
Operating power supply		24 VDC $\pm 10\%$
Waiting current consumption		170 mA
Operating current consumption		480 mA
Start-up, reverse current consumption		2 A
Mounting location		indoors and outdoors
Operating ambient temperature		-15°C to 60°C
Operating ambient humidity		30% to 85% RH (without condensation)
Dimensions without Shutter or card slot (mm $\pm 0,1$)	Length:	106
	Width:	83
	Height:	60
Weight without Shutter or card slot (g ± 1)		270

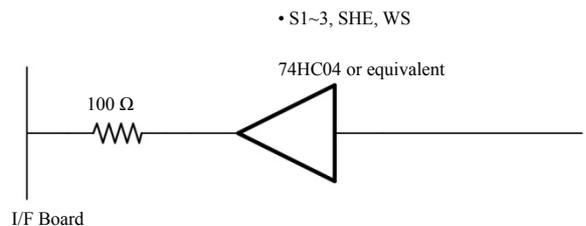
*One pass denotes one-way travel of card feed.

5. Engineering Data

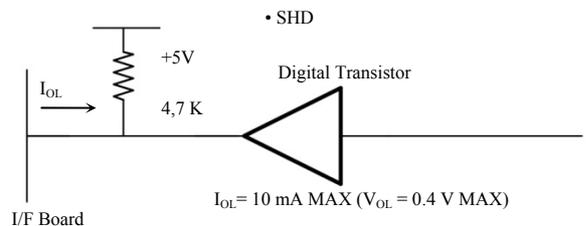
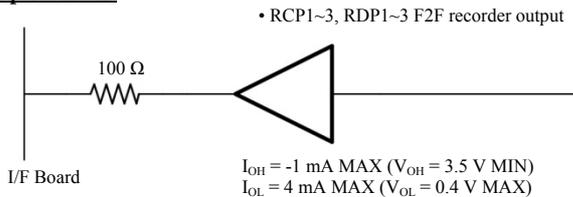
Input Circuit



Output Circuit, cont.



Output Circuit





6. I/O Information

(all signals are active-low)

Card reader side: Hirose Electric HIF3BA-26PA-2, 54DS (male)
 Cable side: Connector socket conforming to MIL-C-83503 (female);
 Berg 66900-266 or 65846-002; 3M 3399-6500SC+3448-3926J
 (connector + strain relief, cable-side connector is not included).

Pin#	Signal	Input / Output	Description
1	24V	--	24 VDC
2	24V	--	24 VDC
3	POV	--	0 VDC
4	POV	--	0 VDC
5	MFS	Input	Motor forward signal
6	MRS	Input	Motor reverse signal
7	S1	Output	Card location sensor 1
8	S2	Output	Card location sensor 2
9	S3	Output	Card location sensor 3
10	--	--	--
11	RDP1	Output	Read data, track 1
12	RCP1	Output	Read clock, track 1
13	RDP2	Output	Read data, track 2
14	RCP2	Output	Read clock, track 2
15	RDP3	Output	Read data, track 3
16	RCP3	Output	Read clock, track 3
17	FO***	Input	Card Front Out
18	TO***	Output	Time Out Ejection
19	RO***	Input	Card Rear Out
20	CLS***	Output	Card Load Signal
21	WS*	Output	Card width switch
22	SHD*	Output	Sense head detector
23	SO*/**	Input	Shutter open/close
24	SHE*/**	Output	Shutter echo switch
25	On/off***	Input	CLS time out
26	0 VDC	--	0 VDC (GND)

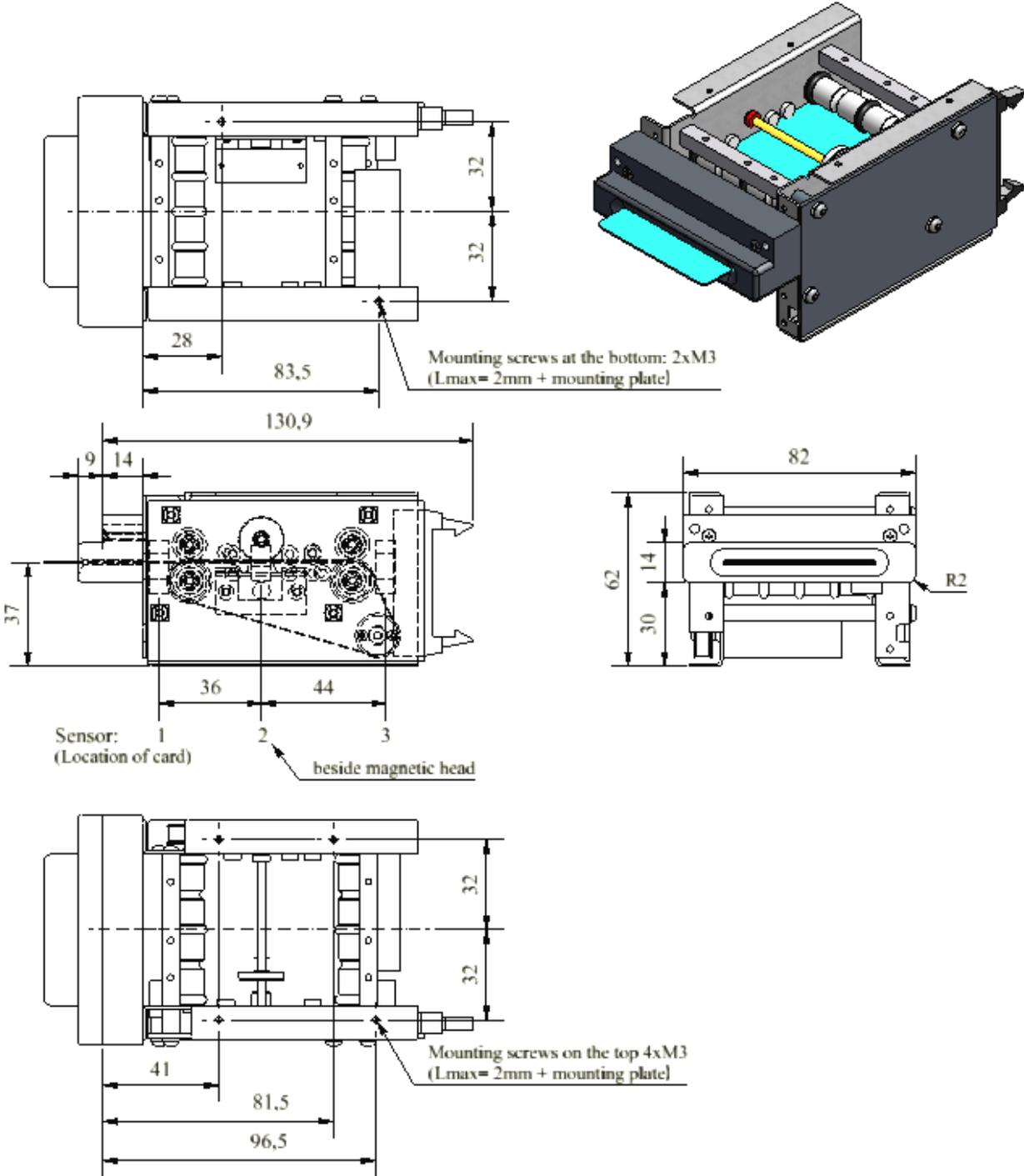
*Signals applicable when OMRON-shutter is attached.

**Signals applicable when "V"-shutter is attached.

***Signals only by Mover-Version

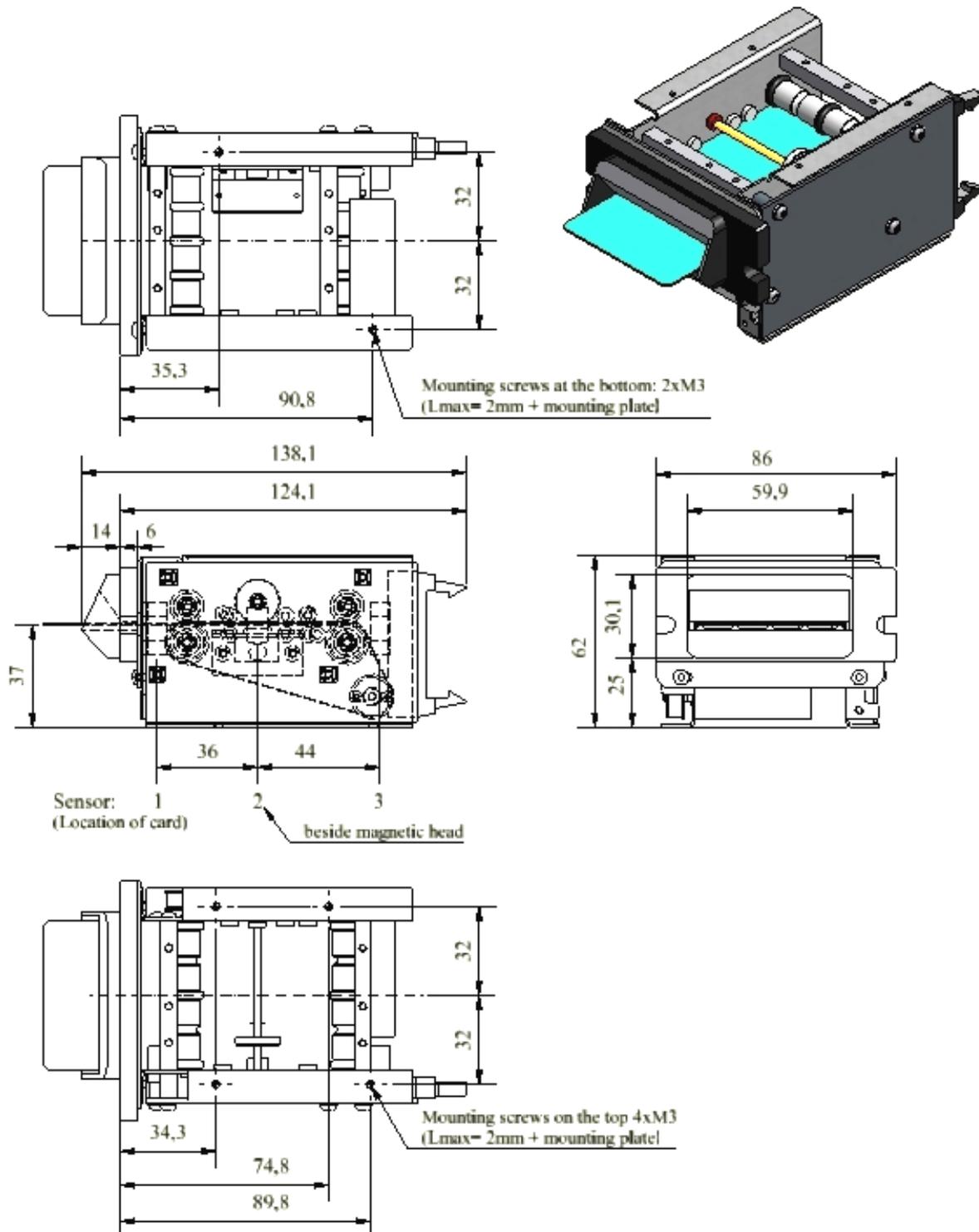
7. Dimensional Outline Drawing

CCR 1-01/-02



CCR 1-03 (Mouth Peace same as MBR 1)

Attention: The next version will be included the mounting by offer top side!





8. Final Clause

The data serve the product description and are no assured properties. For faulty information and themselves from it originating damages the W.ARNOLD GmbH takes over no liability. Single properties can be changed without previous announcement if arises from it no change of the functionality of the product.

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