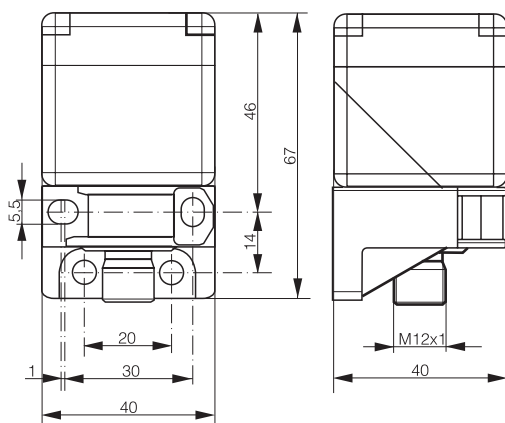


HOUSING	READ/WRITE DISTANCE	<ul style="list-style-type: none"> ✓ 40x40 mm plastic housing ✓ Sensing face of PBTP ✓ Insensitive to dirt ✓ ISO15693 compatible 	<ul style="list-style-type: none"> ✓ Networkable RWM using ContriNET protocol ✓ Cost optimized solution
C44	~80 mm*		



* Please refer to table page 4

GENERAL DATA		INTERFACE	
Carrier frequency	13.56 MHz	RS-485 configuration	
Compatible standard	ISO 15693	Data transfer rate (default in bold)	115 200 / 38 400 / 19 200 baud
Maximum transmission speed	26.5 kbit/s	Number of bits 7 / stop bits / parity	8 / 1 / None
Read-write distance max.	~80 mm with RTP-0502-082	RWM configuration	
		LED yellow on	Transponder detected
		LED yellow blinking	RSSI level ≤ RSSI threshold
		ContriNET protocol	✓

ELECTRICAL DATA		MECHANICAL DATA	
Supply voltage range (U _b)	11...32 VDC	Protection degree	IP68 & IP69K
No-load supply current (field off)	x mA	Ambient temperature range TA**	-25...+80 °C
Max. current consumption (no load)	x mA	Storage temperature range TS***	-25...+80 °C
Short-circuit protection	✓	Sensing face material	PBTP
Voltage reversal protection	✓	Housing material	PBTP
Max. output current	≤ 200 mA	Connector type	M12 4-pin
		Weight (incl. nuts)	x g

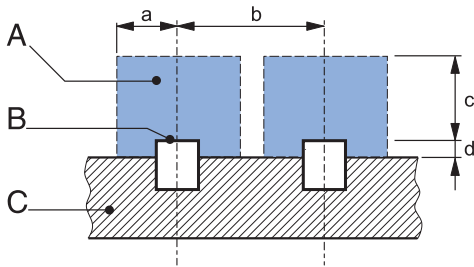
** Read/write operations possible

*** Data retention and mechanical stability limit

MOUNTING RECOMMENDATIONS

CLEARANCE

Read/write modules must not mutually influence each other. For this reason, a minimum distance of b between the devices must be observed.

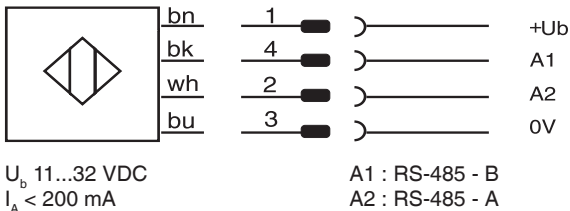


A : metal free zone
 B : sensing face
 C : support

a : 80 mm
 b : x mm
 c : 90 mm
 d : 40 mm

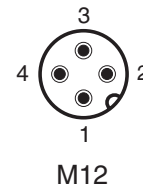
WIRING DIAGRAM

PIN ASSIGNMENT



U_b 11...32 VDC
 I_A < 200 mA

A1 : RS-485 - B
 A2 : RS-485 - A

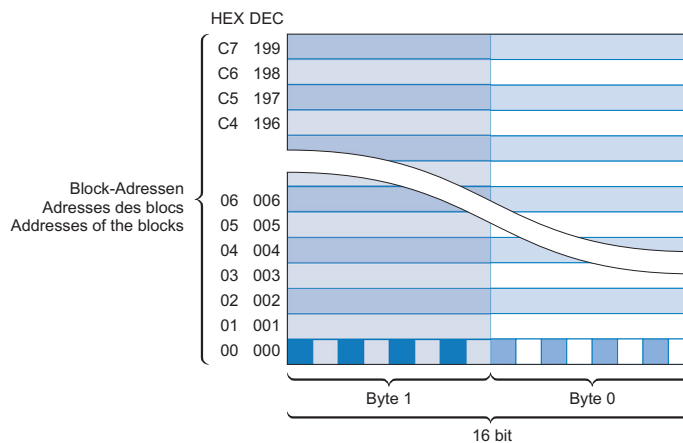


COMMUNICATION SETTINGS

RS-485 characteristics	Value for RLH-C44PA-NSS
Data transfer rate (default in bold)	115 200 / 38 400 / 19 200 baud
Number of bits	8
Number of stop bits	1
Parity	No

MEMORY STRUCTURE OF THE READ/WRITE MODULE

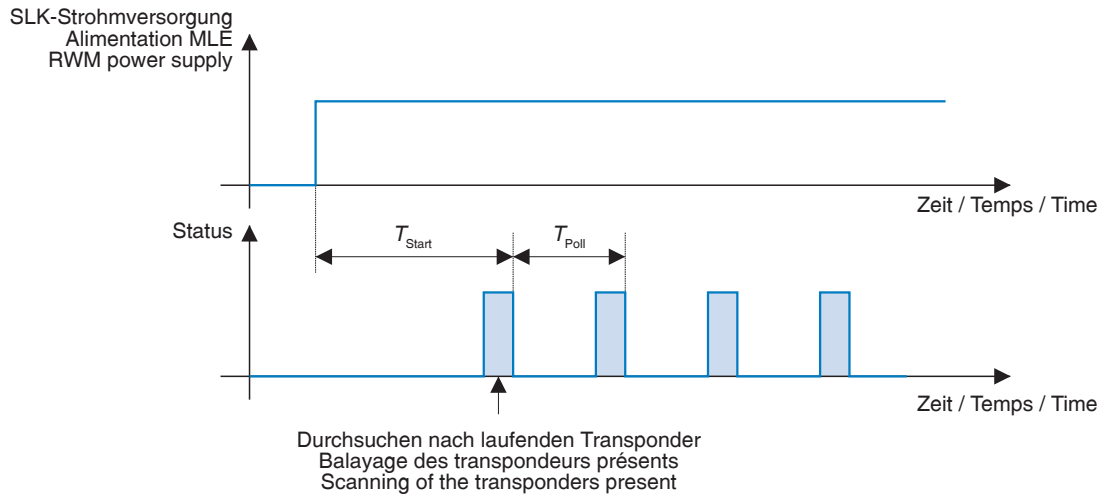
The Read/Write Module has a user memory of 3200 bits organized in 200 blocks of 16 bits. Each block is addressable separately by means of the commands Write RWM and Read RWM.



TYPICAL TIMES

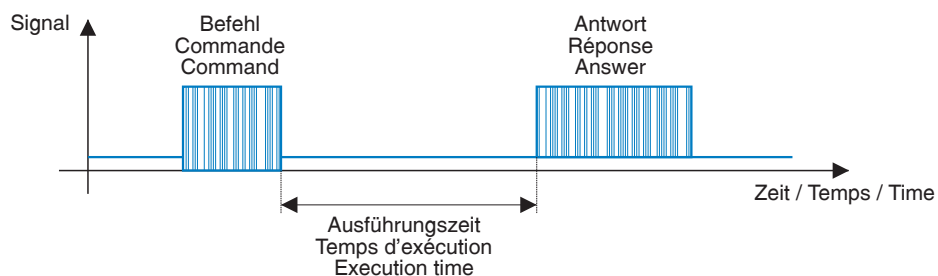
Time name	Description	Value
Starting times	Time between the powering of the RWM and the end of the first scanning of the transponders present	300 ms
Polling time	Time for actualization of the list of the transponders present. This time depends on the number of collisions.	70* ms
Execution time of the commands	The execution time is defined as the time between the end of the sending of the command and the beginning of the answer	Command dependent

*Polling time for 16 transponders without collision



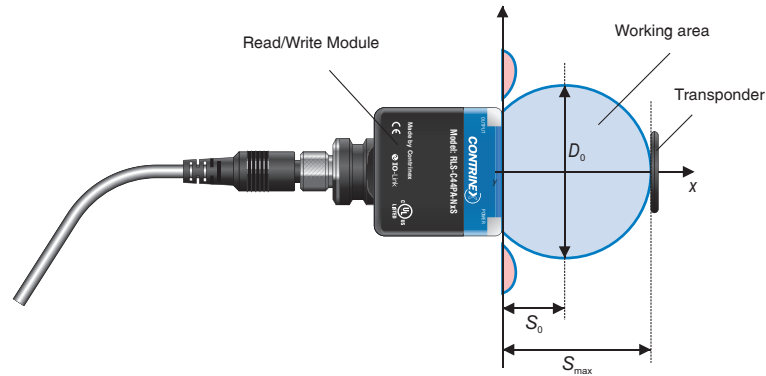
TYPICAL EXECUTION TIMES BY COMMAND TYPE

Command type	Description	Value
Commands related to RWM	Typical execution time	1.5 ms
Commands related to Transponder depending on number of blocks	Duration for decoding the command - T_0	12.0 ms
	Read duration for one block (32 bits) - T_{R0}	8.0 ms
	Write duration for one block (32 bits) - T_{W0}	12.0 ms
	Number of blocks concerned - N	
Commands related to Transponder not related to a number of blocks	Typical execution time (e.g. Get System Info, Write AFI, Lock AFI, Write DSFID, Lock DSFID, and so on)	30 ms



POSSIBLE COMBINATION AND TYPICAL DISTANCE - RLH-C44PA-NSS

Transponder type	S_{max} [mm]	S_0 [mm]	D_0 [mm]
Ø 9 RTP-0090-020			
Ø 16 RTP-0160-020			
Ø 20 RTH-D20QA-NC0			
Ø 20 RTH-D20QA-ND0			
Ø 26 RTP-0263-020			
Ø 30 RTH-D30QA-NC0			
Ø 30 RTH-D30QA-ND0			
Ø 50 RTH-D50QA-NC0			
Ø 50 RTH-D50QA-ND0			
Ø 50 RTP-0502-022			
Ø 50 RTP-0502-062			
Ø 50 RTP-0502-082	~80	~40	~80



AVAILABLE TYPES

Part number	Part reference	Sensing Face	Mounting	Connection
720 100 209	RLH-C44PA-NSS	40 x 40 mm	Non-embeddable	M12 4-pin

DISCLAIMERS

FCC information

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- (1) this device may not cause interference
- (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

IC information

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- (1) this device may not cause interference
- (2) this device must accept any interference, including interference that may cause undesired operation of the device

Cet appareil contient des émetteurs / récepteurs exemptés de licence conformes aux RSS (RSS) d'Innovation, Sciences et Développement économique Canada. Le fonctionnement est soumis aux deux conditions suivantes:

- (1) Cet appareil ne doit pas causer d'interférences
- (2) Cet appareil doit accepter toutes les interférences, y compris celles susceptibles de provoquer un fonctionnement indésirable de l'appareil.

Contrinex information

Operators of the products we supply are responsible for compliance with measures for the protection of persons. The use of our equipment in applications where the safety of persons might be at risk is only authorized if the operator observes and implements separate, appropriate and necessary measures for the protection of persons and machines. Terms of delivery and rights to change design reserved.