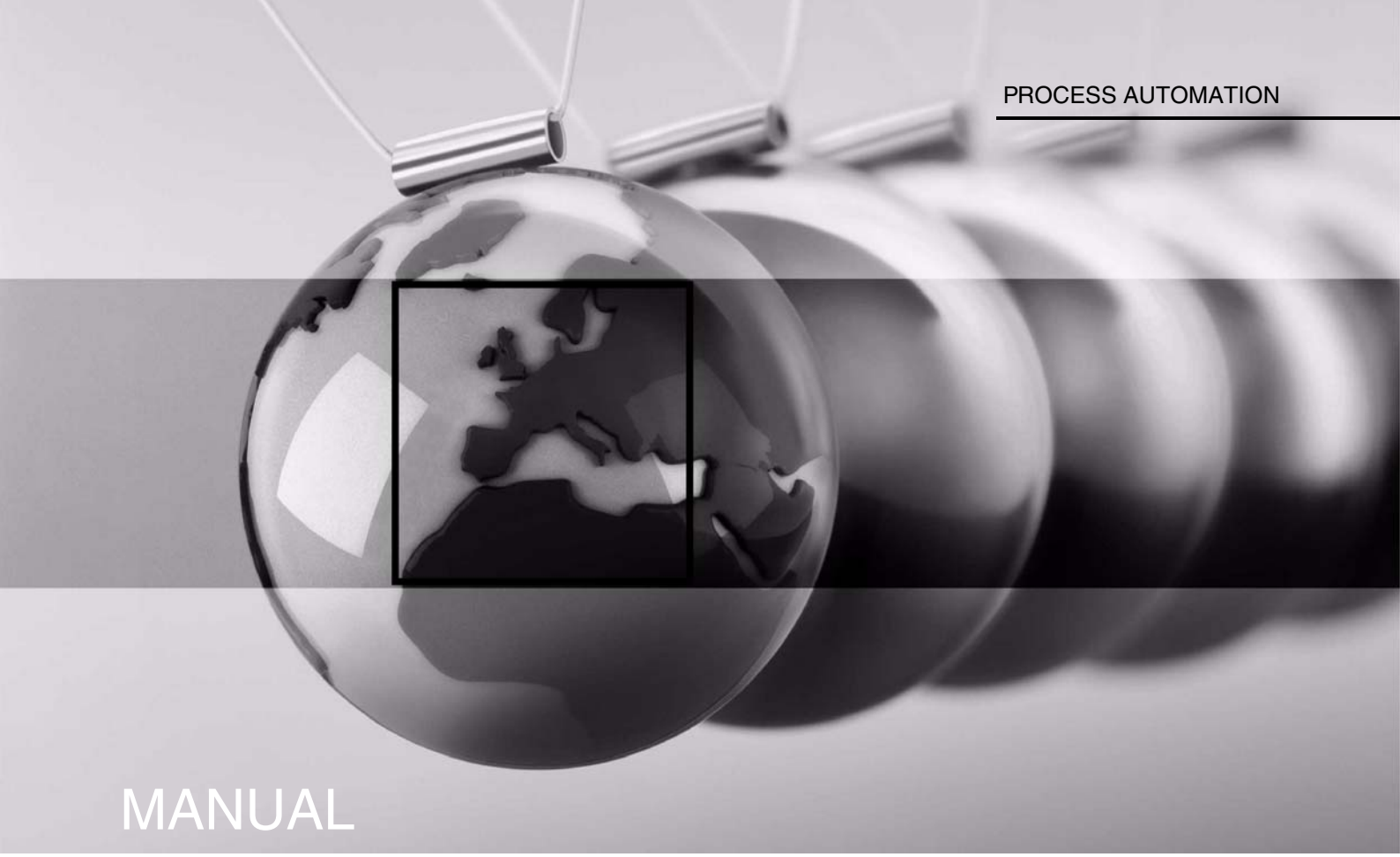


MANUAL

POWERSCAN

PSCAN-D-1*

PEPPERL+FUCHS

PROTECTING YOUR PROCESS

With regard to the supply of products, the current issue of the following document is applicable: The General Terms of Delivery for Products and Services of the Electrical Industry, published by the Central Association of the Electrical Industry (Zentralverband Elektrotechnik und Elektroindustrie (ZVEI) e.V.) in its most recent version as well as the supplementary clause: "Expanded reservation of proprietorship"

1 Safety

1.1 Validity

The chapter “Safety” is valid as instruction manual.

Specific process and instructions in this document require special precautions to guarantee the safety of personnel.

1.2 General safety instructions

The plant owner is responsible for its planning, installation, commissioning, operation, maintenance and disassembly.

Installation and commissioning of all devices must be performed by a trained professional only.

Protection of operating personnel and the system is not ensured if the product is not used in accordance with its intended purpose.

Laws and regulations applicable to the usage or the intended purpose must be observed. The devices are only approved for appropriate and intended use. Ignoring these instructions will void any warranty and absolve the manufacturer from any liability.

The Declaration of Conformity, Certificate of Compliance, Statement of Conformity, EC-type-examination certificate and data sheets are an integral part of this document.

The data sheet contains the electrical data of the Declaration of Conformity, the Certificate of Compliance and the EC-type-examination certificate.

The documents mentioned are available from http://www.pepperl-fuchs.com or contact your local Pepperl+Fuchs representative.

1.3 Used Symbols

Safety-relevant Symbols

Danger!
This symbol indicates a warning about a possible danger.

In case of ignoring the consequences may range from personal injury to death.

Warning!
This symbol indicates a warning about a possible fault or danger.

In case of ignoring the consequences may cause personal injury or heaviest property damage.

Caution!
This symbol warns of a possible fault.

In case of ignoring the devices and any connected facilities or systems may be interrupted or fail completely.

Informative Symbols

Note!

This symbol brings important information to your attention.

Action

This symbol marks an acting paragraph.

1.4 Delivery, Transport and Storage

Check the packaging and contents for damage.

Check if you have received every item and if the items received are the ones you ordered.

Keep the original packaging. Always store and transport the device in the original packaging.

Always store the device in a clean and dry environment. The permitted storage temperature (see data sheet) must be considered.

1.5 PSCAN-D-1* Intended use

The EX barcode reader PSCAN-D-1* can be used in hazardous areas Zone 1 and Zone 21 according to the directive 94/9/EG (ATEX) as well as Class I/Div 1 and Class II/Div 1 (ANSI/UL 913-2008). (depending on version) The barcode reader is able to read all standard 1D code families. After a successful read a beep to indicate a good read is send out for easy working. In addition a bidirectional communication is possible. Supply and communication of the barcode reader is made by an intrinsically safe interface.

The devices are only approved for appropriate and intended use. Ignoring these instructions will void any warranty and absolve the manufacturer from any liability.

1.6 Installation and Commissioning

The installation instructions in accordance with IEC/EN 60079-14 must be observed.

If devices have already been operated in general electrical systems, they may subsequently no longer be installed in electrical systems used in combination with hazardous areas.

The respective peak values of the field device and the associated apparatus with regard to explosion protection should be considered when connecting intrinsically safe field devices with intrinsically safe circuits of associated appartus (verification of intrinsic safety). Make sure to observe IEC/EN 60079-14 and IEC/EN 60079-25.

1.7 Technical data barcode reader PSCAN-D-1*

Data for application in conjunction with hazardous areas	
Voltage U_i	9 V
Current I_i	400 mA
Power P_i	1.5 W
Internal capacitance C_i	negligible
Internal inductance L_i	10 µH
Ambient conditions	
Operating temperature	-10 ... 50 °C (14 ... 122 °F)

1.8 Identification barcode reader PowerScan PSCAN-D-1*

PSCAN-D-1*-F2-*	PSCAN-D-1*-R1-*
Pepperl+Fuchs GmbH	Pepperl+Fuchs, Inc.
68307 Mannheim, Germany	Twinsburg, OH, USA
BVS 09 ATEX E 075	
II 2G Ex ib [op is] IIB T4 Gb	Class I, II, III, Div 1 Group C - G, T4
II 2D Ex ib [op is] IIIB T135°C Db	
-10 ... 50 °C	-10 ... 50 °C

* these positions are not ex-relevant.

1.9 Laser safety compliance

The barcode reader conforms to the following applicable requirements at the date of manufacture.

- EN 60825-1
- CDRH 21 CFR 1040

The laser light is visible to the human eye and is emitted from the output window.

Warning!
Laser Light

The human eye can be damaged.

Do not stare into beam of the laser light.
Any changes at the device are forbidden these could cause a dangerous laser light.
Please consider the procedures described in this operating instruction.
Avoid that the laser beam hits reflective surfaces such as mirrors, etc..

A warning label is attached to the barcode reader describing the laser and laser category.
The device is a class 2 laser.
It is not necessary to open the barcode reader for installation, application or maintenance.

Labels cannot be attached to a laser diode. Hence the respective values are listed below:

Laser Class 2M
EN 60825-1

Laser diode

Maximum output	0.9 mW
Wavelength according to class 2 EN 60825-1 and CDRH 21CFR 1040	630 - 680 nm

1.10 Repair and Maintenance

The devices must not be repaired, changed or manipulated. If there is a defect, the product must always be replaced with an original device.

1.11 Applied standards and guidlines

Directive conformity	
Electromagnetic compatibility	
Directive 2004/108/EC	NE 21
Low voltage	
Directive 2006/95/EC	EN 60950
Explosion protection	
Directive 94/9 EC	EN 60079-0: 2009, EN 60079-11: 2007, EN 60079-28: 2007, EN 61241-11: 2006

1.12 Applied standards PSCAN-D-1*-R1-*

Applied standards	
USA	ANSI/UL 913-2008 ANSI/UL 60950-1-2007
Canada	CAN/CSA C22.2 No. 157-92 (R2006) CSA C22.2 No. 25-1966 (R2004) CAN/CSA C22.2 No. 60950-1-07

2 Product Specifications

2.1 PSCAN-D-1* Function

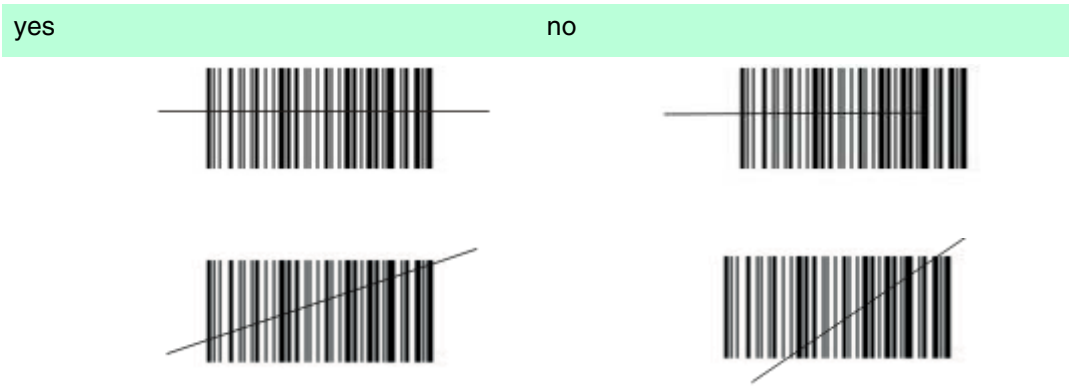
The EX barcode reader PSCAN-D-1* can be used in hazardous areas Zone 1 and Zone 21 according to the directive 94/9/EG (ATEX) as well as Class I/Div 1 and Class II/Div 1 (ANSI/UL 913-2008). (depending on version) The barcode reader is able to read all standard 1D code families. After a successful read a beep to indicate a good read is send out for easy working. In addition a bidirectional communication is possible. Supply and communication of the barcode reader is made by an intrinsically safe interface.

Further functions:

- Aiming system
  First of all a partial trigger produces a red spot for easy aiming. By completely pressing the trigger the scan line appears to start code scanning.
- 3 GL-Technics (3 green lights)
  The good read is shown via an audio signal, green LEDs on upside and underside plus a green scan line direct on the barcode.

Using PSCAN-D-1* readers
The PSCAN-D-1* barcode reader automatically scans barcodes up to a certain distance.see chapter 2.3. Simply aim and pull the trigger. Code scanning is performed along the scan line emitted from the reading window. The line must cross the entire code. The best reading angles are indicated in the figure below.

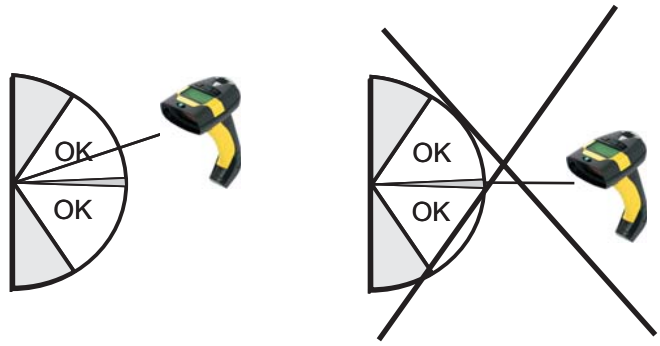
Code reading example



Best reading angles

Note!

To get a good reading performance do not hold the barcode reader vertically, use the reading angles in the figure below.



2.2 Device components

Barcode reader + connecting cable consisting of a helix cable 5 m and a male 5-pin connector (M12 connector) mounted.

2.3 Technical data barcode reader PSCAN-D-1*

Reading Characteristics

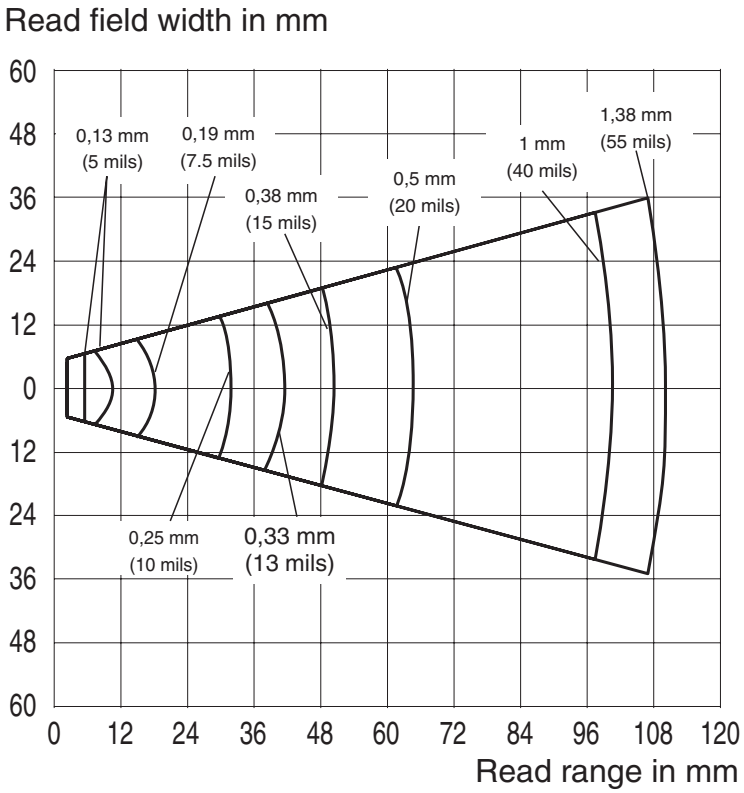
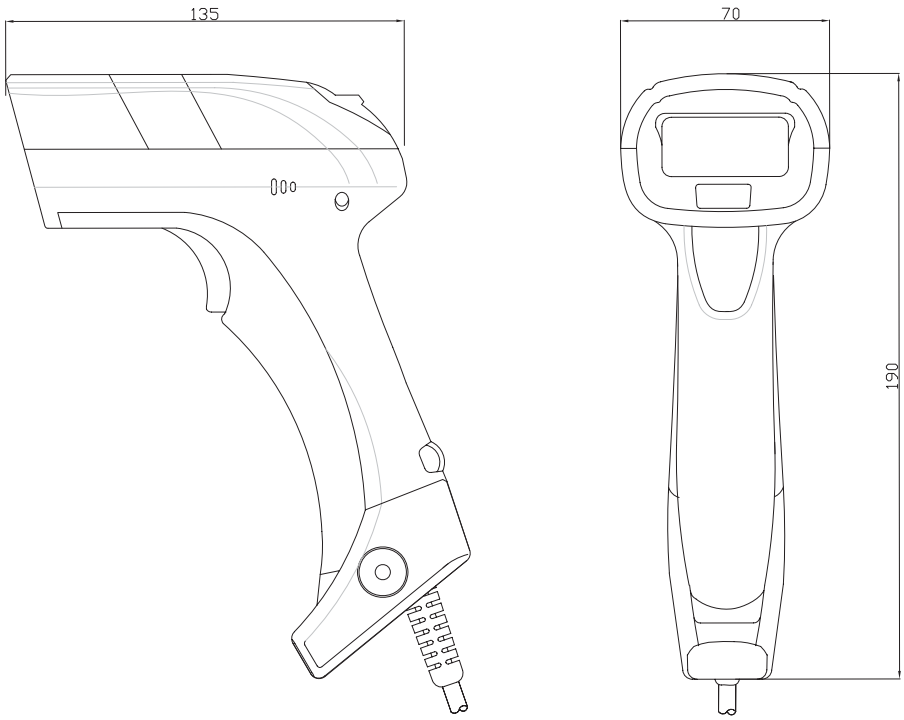
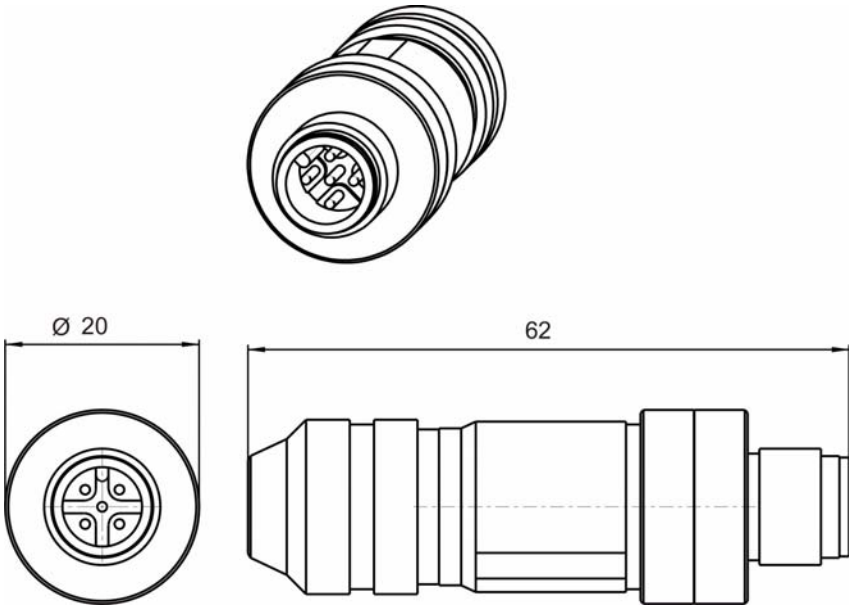


Figure 2.1Reading characteristics PSCAN

Dimensions



Dimensions male 5-pin connector (M12 connector)



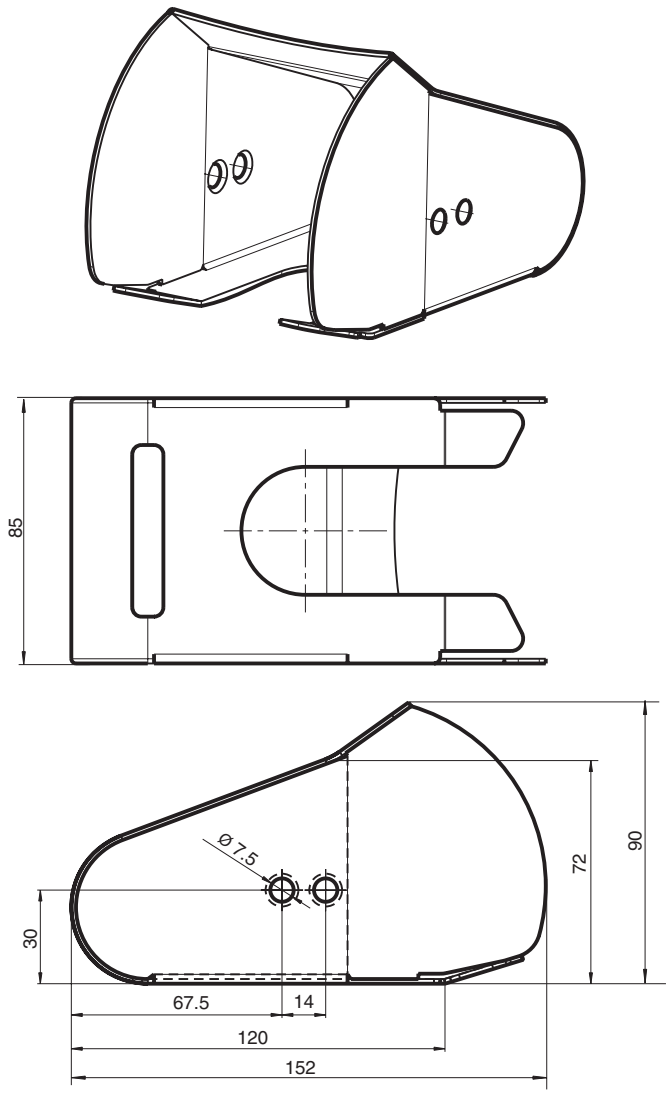
PSCAN-D-1*	
General specifications	
Readable codes	2/5 Family, Code 39, (plus Code 32, Clip 39), EAN/UPC, EAN 128, Code 128, Code 93, CODABAR, Code 49, Code MSI, Code 11, Code 16K, ISBN/ISSN, ISBT 128, GS1DataBar™ (once RSS)
Laser class	Class 2 - EN 60825-1, CDRH
Scan rate	30 ... 40 s^{-1}
Beam deviation angle	max. 42 °
Resolution	0.076 mm (3 mils)
Light type	laser diode 630 ... 680 nm
Electrical specifications	
Operating voltage	8 ... 9 V
Current consumption	100 mA
Directive conformity	
Electromagnetic compatibility	
Directive 2004/108/EC	NE 21:2006
Low voltage	
Directive 2006/95/EC	EN 60950
Explosion protection	
Directive 94/9/EC	EN 60079-0:2009, EN 60079-11:2007 EN 60079-28:2007 EN 61241-11:2006
Ambient conditions	
Operating temperature	-10 ... 50 °C (14 ... 122 °F)
Storage temperature	-20 ... 60 °C (-4 ... 140 °F)
Relative humidity	90 % , noncondensing
Mechanical specifications	
Protection degree	IP44
Mass	340 g
Dimensions	190 mm x 135 mm x 70 mm
Cable length	5 m stretched
Data for application in connection with Ex-areas	
EC-Type Examination Certificate	BVS 09 ATEX E 075
Group, category, type of protection	II 2G Ex ib [op is] IIB T4 Gb II 2D Ex ib [op is] IIIB T135°C Db
Voltage U_i	9 V
Current I_i	400 mA
Power P_i	1.5 W
Internal capacitance C_i	negligible
Internal inductance L_i	10 µH

2.4 Accessory PSCAN-D-1*

Accessory	Order designation	Order number
Connecting cable (PC --- ENT-DC)	S-ENT/PC-9	520645
Connecting cable (Box-A9 --- ENT-DC)	DATL-A4-0	(different, depending on the cable length)
Holder for barcode reader	Scanner-Holder-VisuNet-RM/PC	208140
Replacement cable for barcode reader PSCAN-D-1* Cable: PSCAN-D-1D	SPAREPARTS-PSCAN-D-EX-CABLE	242867
Ex i junction box	Box-A9-PSCAN-F2-N	238609

2.4.1 Holder for barcode reader

Dimensions



2.4.2 Connecting cable PSCAN-D-1D

The connecting cable PSCAN-D-1D is a cable for replacement for the barcode reader PSCAN-D-1*. The mounting instruction you'll find in chaptersee chapter 7.2.

M12 connector, male 5-pin

Connector RJ12 (6 pin)

2.4.3 Ex i junction box with holder for barcode reader

2.4.4 (BOX-A9-PSCAN-F2-N)

Dimensions

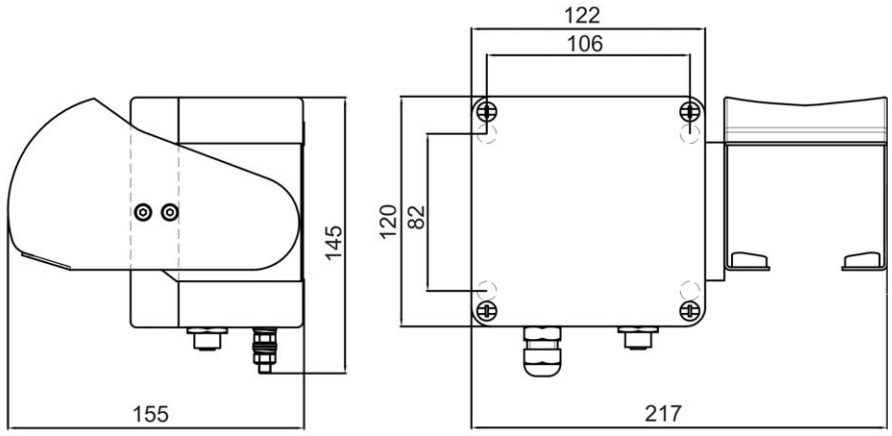


Figure 2.2Abmessungen BOX-A9-PSCAN-F2-N

3 Installation

3.1 Preparation

Unpacking the unit

1. Check that all package contents are present and undamaged.

   If anything is damaged, inform the shipper and contact the supplier.

2. Check that all items are present and correct based on your order and the shipping documents.

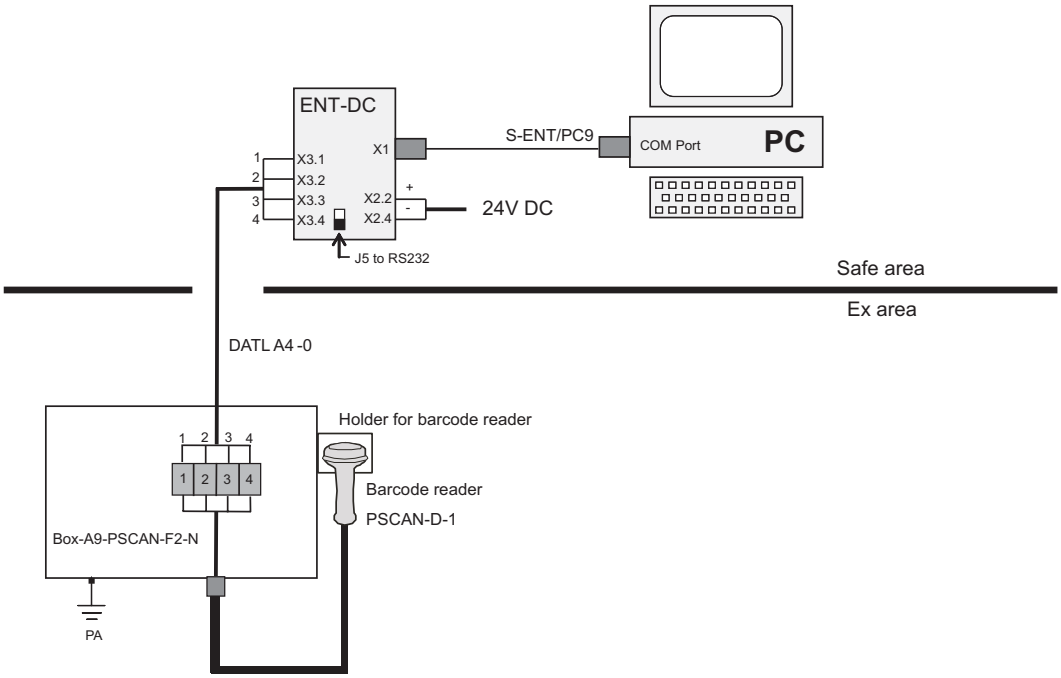
   If you have any questions, please contact Pepperl+Fuchs.

3. Keep the original packing material in case you need to store or ship the unit at a later time.

3.2 Examples for systems

3.2.1 Connecting the barcode reader PSCAN-D-1* to a Host (PC) system via ENT-DC

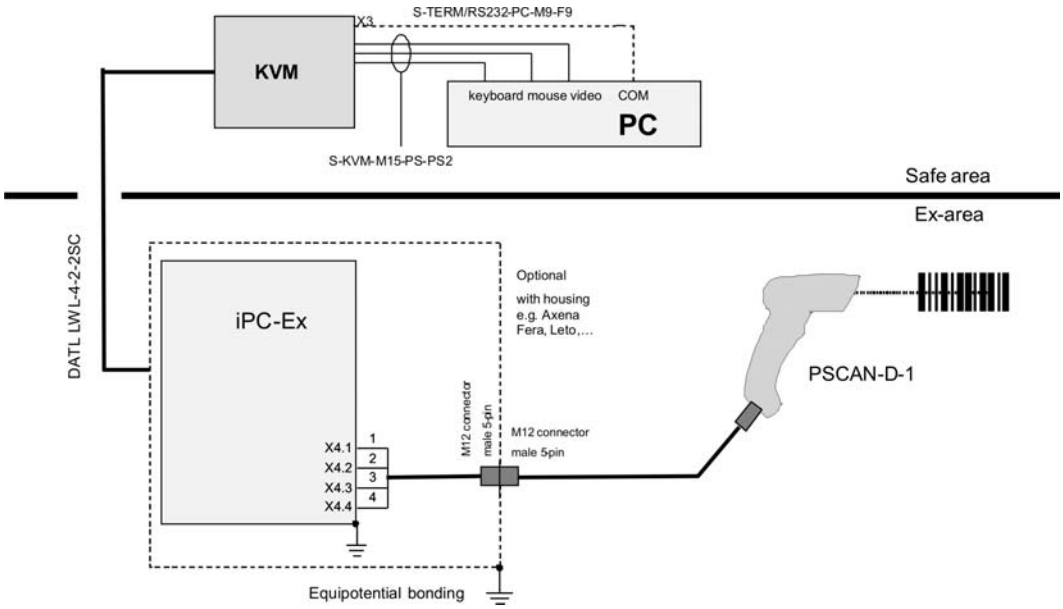
For stand-alone applications, there are 2 model types of ENT-DC, depending on certification requirements. For Ex areas Zone 1 and Zone 21, the ENT-DC-30 is used. For Class I, II, III/Div 1 areas, the ENT-DC-2.5 is used.



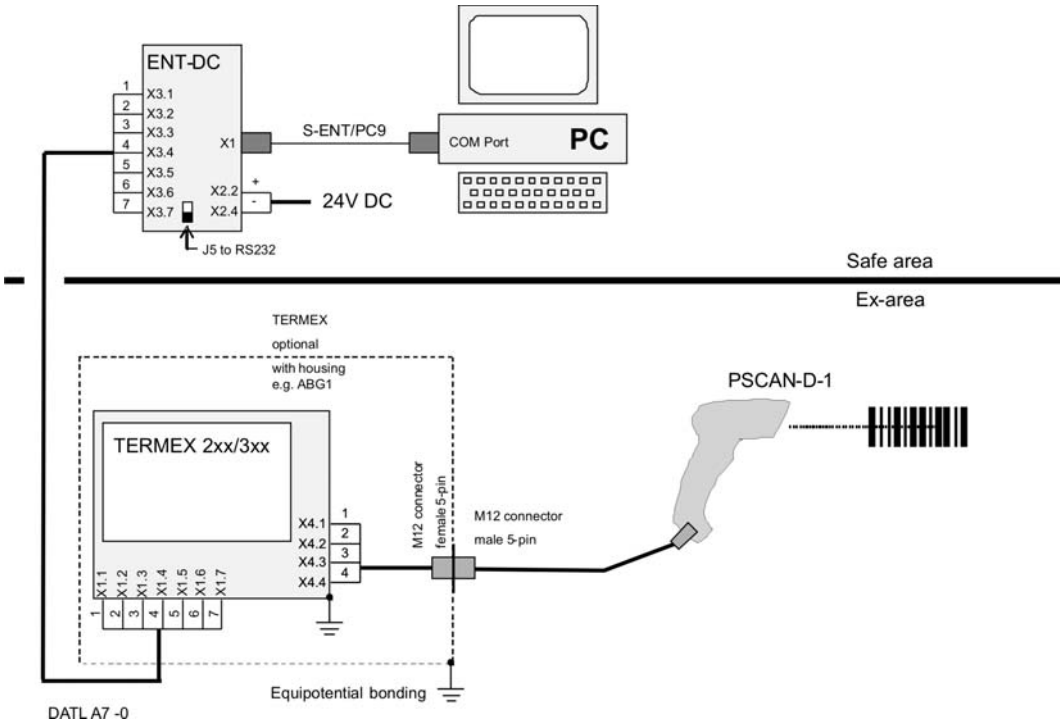
Note!

Max. cable length of DATL A4-0: 150 m

3.2.2 Connecting the barcode reader PSCAN-D-1* via iPC-EX

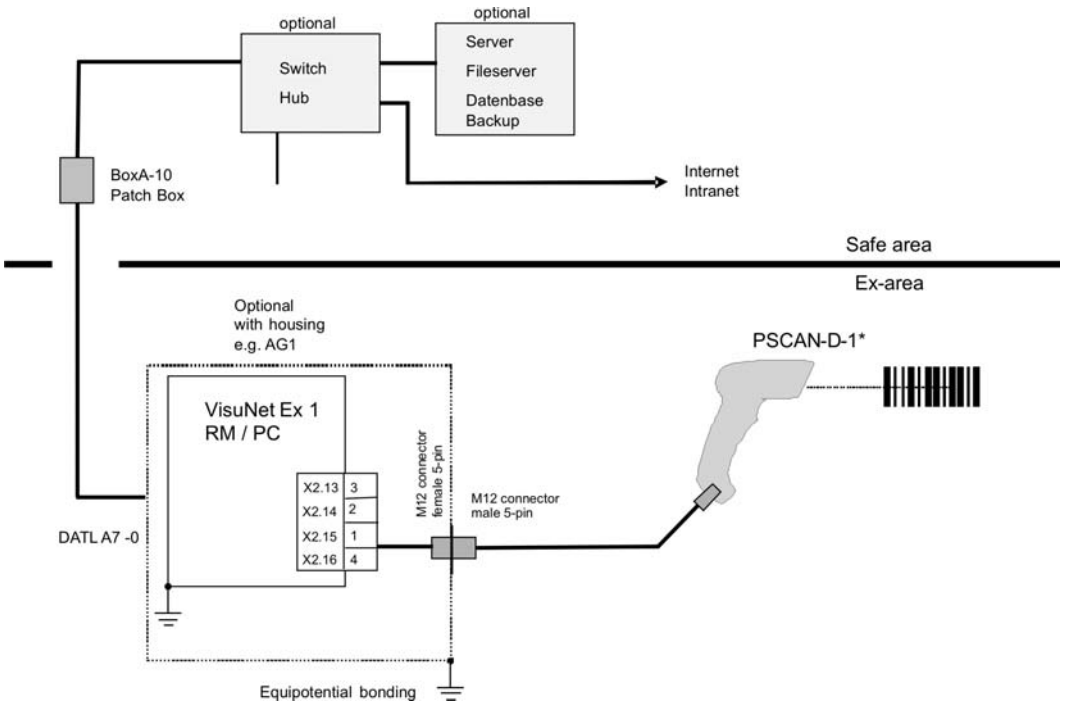


3.2.3 Connecting the barcode reader PSCAN-D-1* to a Host (PC) via TERMEX



With this application please contact the support.

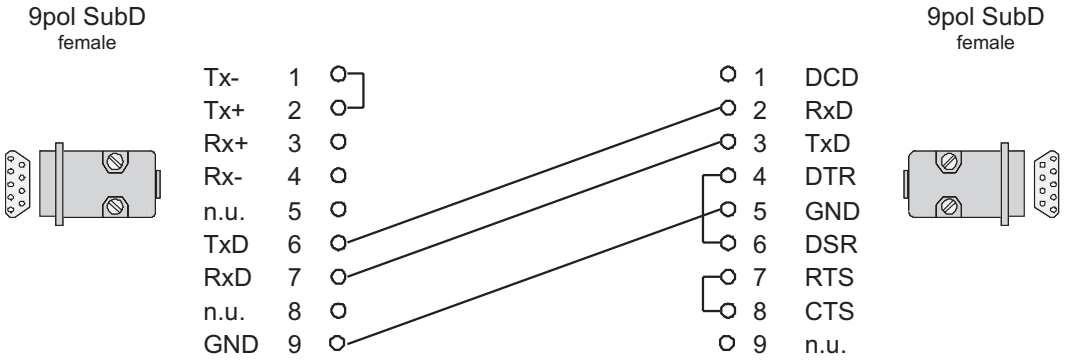
3.2.4 Connecting the barcode reader PSCAN-D-1* via VisuNet



3.3 Electrical Installation PSCAN-D

3.3.1 Connecting cable ENT-DC to PC

Pin assignment



3.3.2 Status Indicators

The barcode reader has two indicator LEDs, a good read spot and a beeper. They signal several operating conditions which are descriped in the table below.

H =	high tone
L =	low tone
* =	Tone and intensity are user-configurable.
# =	The data entry "good read tone" is user-configurable with all the beeper commands in the Reading Parameters section.

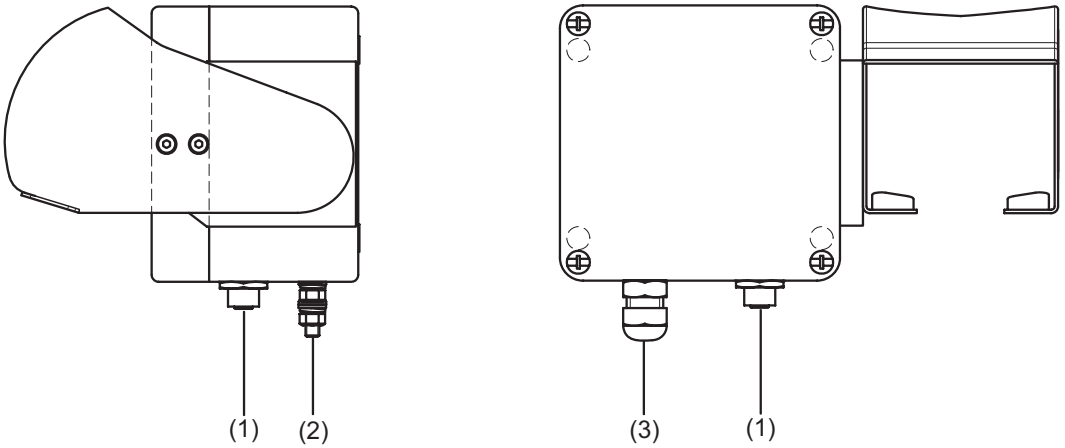
Start up	
Beeper*	Meaning
LLLL	Parameter loading corretly
H H H H long tones	Parameter loading error, reading or writing error in the non-volatile memory
HLHL	Hardware error in EEPROM

Configuration	
Beeper*	Meaning
HHHH	Correct entry or exit from configuration mode
L	Good read of a command
LLL	Command read error

Reader data entry			
Beeper*	LED	Good Read Spot	Meaning
One beep #	on	on	Correct read of a code in normal mode
H L			TX buffer full (when FIFO is enabled)
H long	on	on	Successful advanced format concatenation
HHH			Timeout expired - operation not completed
HH long			Error in advanced data formatting
	off	off	Ready to read a code
	on	off	Ready to read a code

3.4 Installation BOX-A9-PSCAN-F2

BOX-A9-PSCAN-F2-N



1. Connecting socket M12 x 5
2. Equipotential bonding (connecting bolt M6)
3. Cable gland M16 x 1,5

Danger!
danger of explosion

In the event the warning is ignored, the consequences may range from personal injury to death.

Connect the equipotential bonding with the equipotential bonding of the system. (cross section min. 4 mm^2)

Put the grounding on the equipotential bonding

Note!

Depending on the grounding cable you need the adequate cable lug (not included in scope of supply).

1. Insert the grounding cable into a cable lug (4).
2. Unscrew the M4 screw nut (3) on ground connection.
3. Insert the cable of the cable lug between the 2 washers (1).
4. Tighten the screw nut.

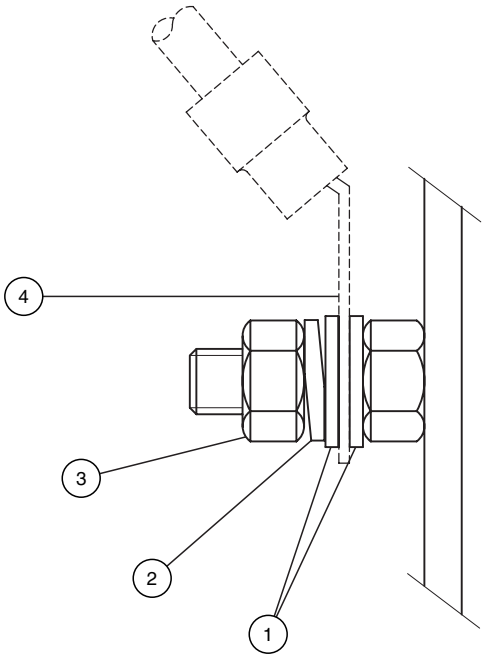


Figure 3.1Equipotential bonding BOX-A9-PSCAN

1 washer
2 lock washer
3 screw nut M4
4 cable lug

Installation cable DATL-A4-0 (max. length: 150 m) (Connection ENT-DC --- BOX-A9-PSCAN-F2-N)

Clamp the cable to the terminal as follows:

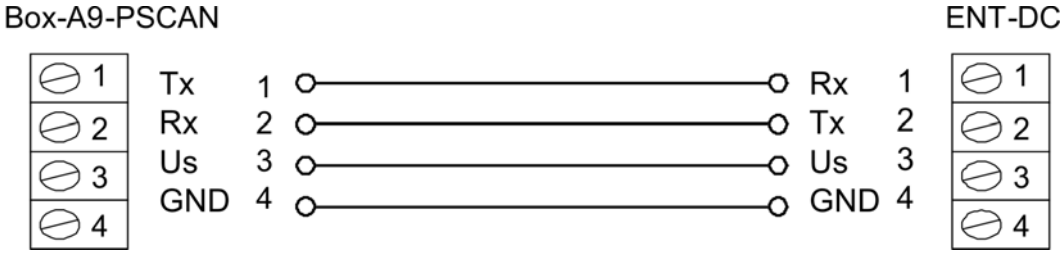
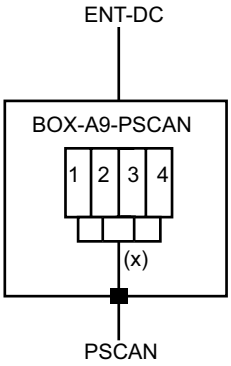


Figure 3.2BOX-A9-PSCAN-F2-N via connecting cable DATL-A4-0 to ENT-DC

Additional information

Klemmenbelegung BOX-A9-PSCAN

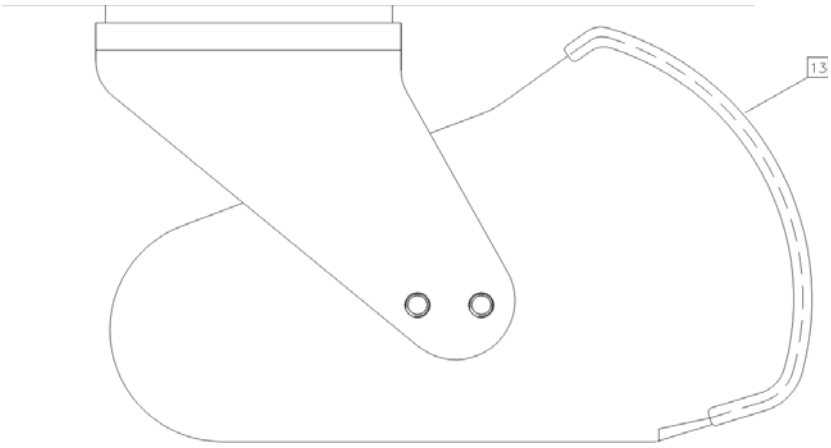


(X) cable

Pin assignment Box-A9-PSCAN

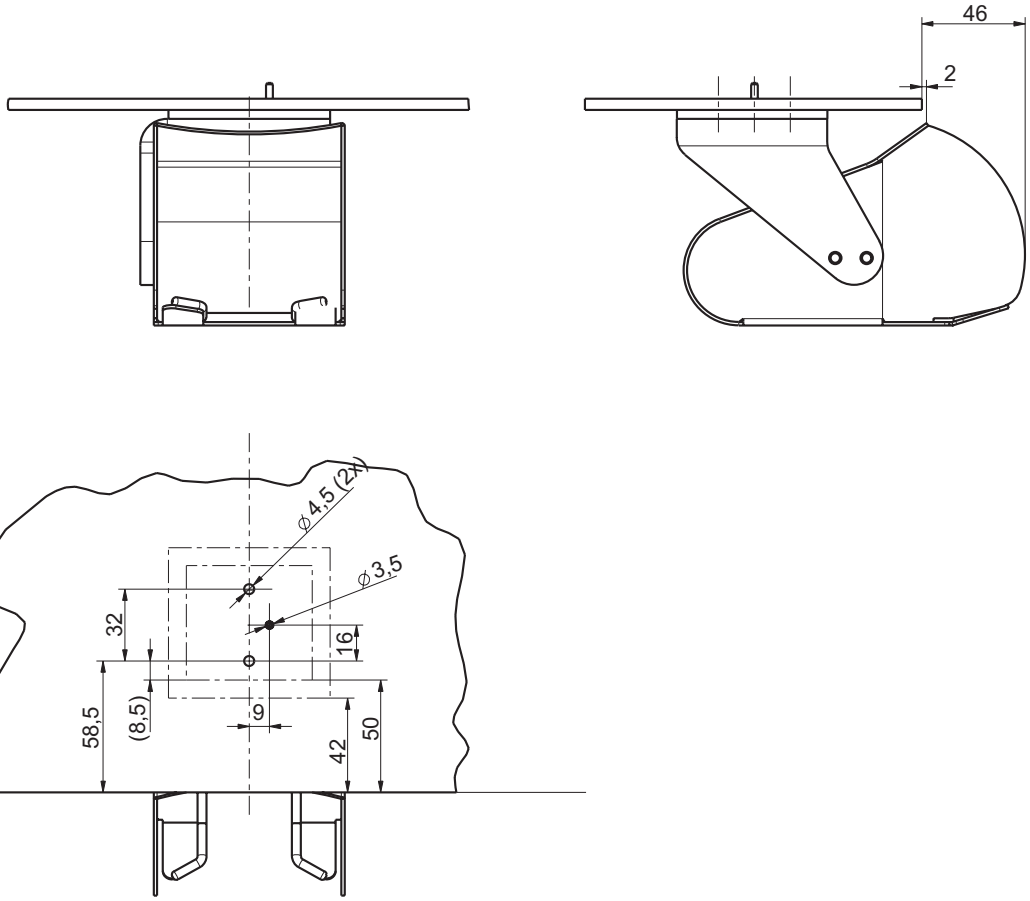
Colour	Clamp	Signal
Blue	1	Tx
White	2	Rx
Black	3	US
Grey + brown	4	GND

3.5 Mounting the holder for barcode reader

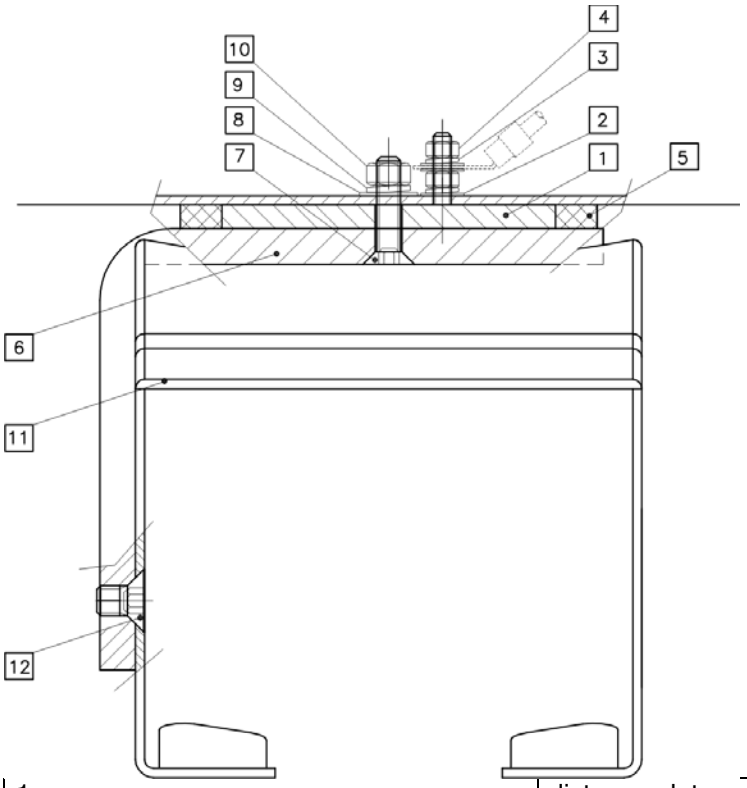


13 edge protection

Hole pattern holder for barcode reader



Holder for barcode reader, top view



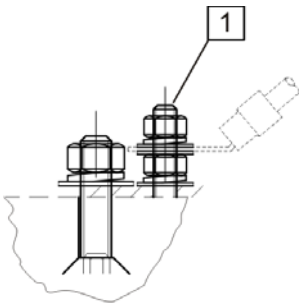
1	distance plate
2	washer M3
3	lock washer M3
4	hex nut
5	gasket
6	adapter (bracket)
7	countersunk head screw M4 (2x).
8	washer M4 (2x)
9	nut M4 (2x)
10	nut M4 (2x)
11	holder for barcode reader
12	countersunk head screw M5 (2x)

Contact holes

1. Contact 2 holes for fastening the holder for barcode reader (2x Ø 4.5).
2. Contact 1 hole for the earth stud for equipotential bonding (1x Ø 3.5).

Installation

1 earth stud



Installing the earth stud

Danger!
danger of explosion

In the event the warning is ignored, the consequences may range from personal injury to death.

Connect the earth stud with the equipotential bonding of the system. (cross section min. 4 mm^2)

4 Configuration PSCAN-D-1*

There are 2 different configurations for the barcode reader.

Configurations for the barcode reader PSCAN-D-1*	
Version type: PSCAN-D-1*-**-05	Version type: PSCAN-D-1*-**-20
for devices of the product line TERMEX	for devices of the product lines VisuNet Ex1 RM/PC, VisuNet Ex1 KM (iPC-Ex), ENT-DC

4.1 Configuring PSCAN-D-1*-**-05

Configure the barcode reader

1. Read the following codes in the given sequence and follow the instructions.
2. Read "Enter configuration"

$+

3. Read terminal connection with 1200 Baud

CD3

4. Read Parity EVEN

CC1

5. Read Aiming system enable

Bj1

6. Read "Exit and save configuration"

$-

4.2 Configuring PSCAN-D-1*-**-20

Configure the barcode reader

1. Read the following codes in the given sequence and follow the instructions.
2. Read "Enter configuration"

$+

3. Read 9600 Baud (*)

CD6

4. Read Parity EVEN

CC1

5. Read Aiming System enable

Bj1

6. Read "Exit and save configuration"

$-

4.3 PSCAN-D-1* default configuration

Restore PSCAN-D default


Default serial interface	
Parameter	Default
Baud Rate	9600
Parity	disabled
Data Bits	8
Stop Bits	1
Handshaking	disabled
ACK/NAK Protocol	disabled
FIFO	enabled
Inter-Character Delay	disabled
Rx Timeout	5 sec
Serial Trigger Lock	disabled

Default Data Format	
Parameter	Default
Code Identifier	disabled
Custom code Identifier	disabled
Header	no
Terminator	no
Field Adjustment	disabled
Field Adjustment character	disabled
Code Länge Tx	not transmitted
Character Replacement	disabled

Default Power save	
Parameter	Default
Sleep state	disable
Enter sleep timeout	0,6 sec.

Default Reading Parameter	
Parameter	Default
Trigger type	Hardware trigger
Trigger signal	Trigger active level
Trigger click	Disabled
Trigger-off timeout	Disabled

Default Reading Parameter	
Flash Mode	on 1 sec., off 0,6 sec.
Reads per cycle	1
Safety time	0.5 sec.
Beeper intensity	High intensity
Beeper tone	Ton 2
Beeper type	Monotone
Beeper length	Short
Good read spot duration	Medium
Aiming system	Disabled

Default Decoding Parameters	
Parameter	Default
Ink Spread	enabled
Overflow Control	enabled
Interdigit Control	enabled
Decoding Safety	one read
Puzzle Solver	disabled

Default Code selection	
Parameter	Default
EAN /UPC - Family	EAN 8/EAN 13 / UPC A/UPC E Check digit control no conversion
2/5 Family	Interleaved 2/5 Check digit control and transmission variable code length: 4-55 characters
Code 39 Family	Standard Code 39 no check digit control variable code length: 1-99 characters
Code 128 Family	Code 128 Check digit control without transmission Add GS before code = disabled
Code 93	disabled
Codabar Family	disabled
MSI	disabled
Code 11	disabled
Code 16K	disabled
Code 49	disabled
GS1 DATABAR Codes	disabled

Default Advanced Formatting	
Parameter	Default
Concatenation	disabled
Advanced Formatting	no Advanced Formatting enabled

Delivery status PSCAN-D: Serial interface		
Parameter	Delivery status	
	5 mA (Terminal (TERMEX) connection)	20 mA (ENT-DC / VisuNet connection)
Baud-Rate	1200	9600
Parity	EVEN	EVEN
Data bits	8	8
Stop bit	1	1

4.4 Parameter serial interface

Default serial interface	
Parameter	Default
Baud Rate	9600
Parity	disabled
Data Bits	8
Stop Bits	1
Handshaking	disabled
ACK/NAK Protocol	disabled
FIFO	enabled
Inter-Character Delay	disabled
Rx Timeout	5 sec
Serial Trigger Lock	disabled

Der Defaultwert ist mit (*) gekennzeichnet:

To change the default values

1. Read the "Enter Configuration" code once.
2. Read configuration codes from the desired groups or follow the procedure given for this code group.
3. When desired you can change further configuration codes directly.
4. Read the "Exit and Save Configuration" code once.

4.4.1 Baud Rate

Enter configuration

Exit and save configuration

Baud Rate

300 Baud

600 Baud

1200 Baud

2400 Baud

4800 Baud

9600 Baud (*)

19200 Baud

38400 Baud

4.4.2 Parity

Enter configuration

Exit and save configuration

Parity

Parity disabled (*)

Parity even

Parity odd

4.4.3 Data bits

Enter configuration

Exit and save configuration

Data bits

7 Data bits

8 Data bits (*)

9 Data bits

4.4.4 Stop bits

Enter configuration

Exit and save configuration

Stoppbit

1 Stop bit (*)

2 Stop bits

4.4.5 Handshaking

Enter configuration

Exit and save configuration

Handshaking

Transmission without handshaking (*)

Hardware RTS/DTR

Software XON/XOFF

RTS always on

4.4.6 ACK/NACK Protocol

Enter configuration

Exit and save configuration

ACK/NACK Protocol

disable (*)

enable

4.4.7 FIFO

Enter configuration

Exit and save configuration

FIFO

disable

enable (*)

4.4.8 Inter-Character Delay

Enter configuration

Exit and save configuration

Inter-Character Delay

Inter-Character delay
(Delay between characters transmitted to host)

Read 2 numbers from the table where
00 = Delay disabled (*)
01-99 = Delay from 1 to 99 milliseconds

4.4.9 RX Timeout

Enter configuration

Exit and save configuration

RX Timeout

Timeout control in reception from Host

Read 2 numbers from the table where

00 = Timeout disabled
50 = RX timeout 5 sec (*)
01-99 = Timeout from 0.1 bis 9.9 seconds

4.4.10 Serial Trigger Lock

Enter configuration

Exit and save configuration

Serial Trigger Lock

Disabled (*)

Enable and select characters

Read 2 characters from Hex/Numeric talbe
in the range 00-FE where
First character enables divice trigger
Second character inhibits divice trigger
until the first character is received again.

4.5 Data Format

Default Data Format	
Parameter	Default
Code Identifier	disabled
Custom code Identifier	disabled
Header	no
Terminator	no
Field Adjustment	disabled
Field Adjustment character	disabled
Code Länge Tx	not transmitted
Character Replacement	disabled

The Default value is signed with (*)

To change the default values

1. Read the "Enter Configuration" code once.
2. Read configuration codes from the desired groups or follow the procedure given for this code group.
3. When desired you can change further configuration codes directly.
4. Read the "Exit and Save Configuration" code once.

Code identifier table

Code	AIM Standard	Datalogic Standard	Custom
2/5 interleaved	]Iy	N	
2/5 industrial	]Xy	P	
2/5 normal 5 bars	]Sy	O	
2/5 matrix 3 bars	]Xy	Q	
EAN 8	]E4	A	
EAN 13	]E0	B	
UPC A	]Xy	C	
UPC E	]Xy	D	
EAN 8 with 2 ADD ON	]E5	J	
EAN 8 with 5 ADD ON	]E6	K	
EAN 13 with 2 ADD ON	]E1	L	
EAN 13 with 5 ADD ON	]E2	M	
UPC A with 2 ADD ON	]Xy	F	
UPC A with 5 ADD ON	]Xy	G	
UPC E with 2 ADD ON	]Xy	H	
UPC E with 5 ADD On	]Xy	I	
Code 39	]Ay	V	
Code 39 Full ASCII	]Ay	W	
CODABAR	]Fy	R	
ABC CODABAR	]Xy	S	
Code 128	]Cy	T	
EAN 128	]Cy	k	
ISBT 128	]C4	f	
Code 93	]Gy	U	
CIP/39	]Xy	Y	
CIP/HR	]Xy	e	
Code 32	]Xy	X	
MSI	]My	Z	

Code	AIM Standard	Datalogic Standard	Custom
Code 11	]Hy	b	
Code 16 K	]K0	p	
Code 49	]Ty	q	
GS1 DataBarTM Expanded and Stacked	]e0	t	
GS1 DataBar Limited	]e0	v	
GS1 DataBar 14 Linear and Stacked	]e0	u	

Reference

AIM standard identifiers are not defined for all codes: the X identifier is assigned to the code for which the standard is not definded. The y value depends on the selected options (check digit tested or not, check digit tx or not , ect.).

When customizing the Datalogic Standard code identifiers, 1 or 2 identifier character can be defined for each code type. If only 1 identifier character is required, the second character must be selected as FF (disabled).

The code identifier can be singly disabled for any code by simply selecting FF as the first identifier character.

Write in the Custom character identifiers in the table above for your records.

4.5.1 Code Identifier

Enter configuration

$+

Exit and save configuration

$-

Code Identifier disabled (*)

EB0

Datalogic standard

EB1

AIM standard

EB2

Custom

EB3

4.5.2 Custom Code Identifier

Enter configuration

$+

Exit and save configuration

$-

Custom code identifier

Default: disabled

Define costom code identifiers

EH

1.) Read the left code (EH).
2.) Select the code type from the code table in for the identifier you want to change.
3.) You can define 1 or 2 identifier characters for each code type. If only 1 identifier character is required, the second character must be selected as FF (disabled). Read the hexadecimal value corresponding to the characters you want to define as identifiers for the code selected in step 2.) : valid characters are in the range 00-FD.

Example: To define the Code 39 Code, Identifier = @

EH + Code 39 + 40 +FF

4.5.3 Header

Enter configuration

$+

Exit and save configuration

$-

Header

no header (*)

EA00

one character header

EA01

two character header

EA02

three character header

EA03

Enter configuration

Exit and save configuration

four character header

five character header

six character header

seven character header

eight character header

After selecting one of the desired Header codes, read the character(s) from the Hex table. Valid characters are in the range 00-FE.

Example: four character header:

+ 41 42 43 44 =
Header ABCD

4.5.4 Terminator

Enter configuration

$+

Exit and save configuration

$-

Terminator

no terminator (*)

EA10

one character terminator

EA11

two character terminator

EA12

three character terminator

EA13

four character terminator

EA14

five character terminator

EA15

six character terminator

EA16

seven character terminator

EA17

eight character terminator

EA18

After selecting one of the desired Header codes, Terminator codes, read the character(s) from the Hex table. Valid characters are in the range 00-FE.

Example: four character terminator

EA14

+ 41 42 43 44 =

terminator ABCD

4.5.5 Field adjustment

Enter configuration

Exit and save configuration

Field adjustment

Default: disabled (*)

1.) To define the field adjustment (enable)

2.) Read the enable field adjustment code:see chapter 6.2

3.) Select the type of adjustment to perform

right addition

left addition

right deletion

left deletion

4.) Read a number in the range 01 - 32 from the Hex/Numeric table to define how many characters to add or delete.

Enter configuration

Exit and save configuration

Example: To add 4 characters to the right of Standard Code 39 Codes:

Field Adjustment aktiviert +

Code 39 +

right addition + 04

4.5.6 Field Adjustment character

Enter configuration

Exit and save configuration

Field Adjustment character

Default: disabled (*)

1.) Read the field adjustment character code

Example: To define the field adjustment character = A

2.) Read the hexadecimal value corresponding to the character you want to use for field adjustment. Valid characters are in range 00-FE.

+41

4.5.7 Code Length Tx

Enter configuration

Exit and save configuration

Code Länge Tx

not transmitted (*)

transmitted in variable-digit format

transmitted in fixed 4-digit format

4.5.8 Character Replacement

Enter configuration

Exit and save configuration

Character Replacement

disable character replacement (*)

This parameter allows up to three characters to be replaced from the barcode read.

1.)
enable first character replacement

enable second character replacement

enable third character replacement

Enter configuration	Exit and save configuration
 $+	 $-

2.) From the Code Identifier Table, read the Code Identifier for the desired code family see chapter 6.2
0 = character replacement will be effective for all code families.
3.) Read two characters corresponding to the Hex value (00-FE), which identifies the character to be replaced.
4.) Read two characters corresponding to the Hex value (00-FE) which identifies the new character to replace.
FF = the character to be replaced will be substituted with no character, that is, it will be removed from the code.

Example 1
First character replacement: substitution in Code 39 barcodes of all occurrences of the "0-character" with "1-character".
For Code 39 codes containing the string "0123" the contents transmitted will be"1123".

First character replacement +  E01

Code 39 +  V

ASCI characters corresponding to the HEX value for character 0 + 30

ASCI characters corresponding to the HEX value for character 1 31

Example 2
Second character replacement: substitution in Code 39 barcodes of all occurrences of the "A character" with the "B character".
For Code 39 codes containing the string "ABCD" the contents transmitted will be "BBCD".

Second character replacement +  E02

Code 39 +  V

ASCI characters corresponding to HEX value for character A + 41

ASCI characters corresponding to HEX value fpr character B 42

4.6 Power Save

Der Defaultwert ist mit (*) gekennzeichnet:

Default Power save	
Parameter	Default
Sleep state	disable
Enter sleep timeout	0,6 sec.

Der Defaultwert ist mit (*) gekennzeichnet:

To change the default values

1. Read the "Enter Configuration" code once.
2. Read configuration codes from the desired groups or follow the procedure given for this code group.
3. When desired you can change further configuration codes directly.
4. Read the "Exit and Save Configuration" code once.

4.6.1 Sleep State

Enter configuration

Exit and save configuration

Sleep state

disable

enable

The PSCAN-M barcode reader sleep state is entered immediately after reading a code and is not configurable.

4.6.2 Enter Sleep Timeout

Enter configuration	Exit and save configuration
 $+	 $-

Enter sleep timeout

Enter sleep timeout


BR

Read 2 numbers n the range 00-99:
00 = Enter sleep state immediately.
01 - 99 = corresponds to a max. 9.9 sec. delay before entering the sleep state.

4.7 Reading Parameters

Default Reading Parameter	
Parameter	Default
Trigger type	Hardware trigger
Trigger signal	Trigger active level
Trigger click	Disabled
Trigger-off timeout	Disabled
Flash Mode	on 1 sec., off 0,6 sec.
Reads per cycle	1
Safety time	0.5 sec.
Beeper intensity	High intensity
Beeper tone	Ton 2
Beeper type	Monotone
Beeper length	Short
Good read spot duration	Medium
Aiming system	Disabled

The Default value is signed with (*).

To change the default values

1. Read the "Enter Configuration" code once.
2. Read configuration codes from the desired groups or follow the procedure given for this code group.
3. When desired you can change further configuration codes directly.
4. Read the "Exit and Save Configuration" code once.

4.7.1 Trigger Type

Enter configuration

Exit and save configuration

Trigger Type

Software trigger

Hardware trigger (*)

always on

4.7.2 Trigger Signal

Enter configuration

Exit and save configuration

Trigger Signal

Trigger active level (*)

Trigger active pulse

See chapter 5.2

4.7.3 Trigger Click

Enter configuration

Exit and save configuration

Trigger Click

disable (*)

enable

See chapter 5.2

4.7.4 Trigger-off Timeout

Enter configuration

Exit and save configuration

Trigger-off Timeout

Default: disabled (*)

Trigger-off Timeout changes

Read 2 numbers in the range 00-99:
00 = disabels the trigger-off timeout (*)
01-99 = corresponds to a max. 99-sec. delay after the trigger press to allow the reader to turn off automatically.

See chapter 5.2

4.7.5 Flash Mode

Enter configuration

Exit and save configuration

Flash Mode

Default Flash on: 1.0 sec. (*)
Default Flash off: 0.6 sec. (*)

Flash On duration

Flash off duration

Read 2 numbers in the range 01- 99.
01 to 99 = from 0.1 bis 9.9 seconds

4.7.6 Reads per cycle

Enter configuration

Exit and save configuration

Reads per cycle

One read per cycle (*)

Multiple reads per cycle

See chapter 5.2

4.7.7 Safety Time

Enter configuration

Exit and save configuration

Safety Time

Default Safety time 0.5 sec. (*)

Safety Time

Limitssamecode consecutive reading.

Read 2 numbers in the range 00-99:
00 = no same code consecutive reading until reader is removed (no decoding) for at least 400 ms.
01 - 99 = Timeout from 0.1 to 9.9 seconds before a consecutive read on same code.

See chapter 5.2

4.7.8 Beeper Intensity

Enter configuration

Exit and save configuration

Beeper Intensity

Beeper off

Low intensity

Medium intensity

High intensity (*)

4.7.9 Beeper Tone

Enter configuration

Exit and save configuration

Beeper Tone

Tone 1

Tone 2 (*)

Tone 3

Tone 4

4.7.10 Beeper Type

Enter configuration

Exit and save configuration

Beeper Type

monoton (*)

bitonal

4.7.11 Beeper length

Enter configuration

Exit and save configuration

Beeper length

long

short

4.7.12 Good read spot duration

Enter configuration

Exit and save configuration

Good read spot duration

disable

short

medium (*)

long

4.7.13 Aiming System

Enter configuration

Exit and save configuration

Aiming System

disabled (*)

enabled

4.8 Decoding Parameters

Default Decoding Parameters	
Parameter	Default
Ink Spread	enabled
Overflow Control	enabled
Interdigit Control	enabled
Decoding Safety	one read
Puzzle Solver	disabled

The Default value is signed with (*).

Caution!
Malfunciton of the barcode reader

With changing this parameters the reading performance can be degraded or increase the possibility of a decoding error.

These parameters must be absolutely correctly adjusted.

To change the default values

1. Read the "Enter Configuration" code once.
2. Read configuration codes from the desired groups or follow the procedure given for this code group.
3. When desired you can change further configuration codes directly.
4. Read the "Exit and Save Configuration" code once.

4.8.1 Ink spread

Enter configuration

Exit and save configuration

Ink spread

disable

enable (*)

See chapter 5.3

4.8.2 Overflow Control

Enter configuration

Exit and save configuration

Overflow Control

disable

enable (*)

See chapter 5.3

4.8.3 Interdigit Control

Enter configuration

Exit and save configuration

Interdigit Control

disable

enable (*)

See chapter 5.3

4.8.4 Decoding Safety

Enter configuration

Exit and save configuration

Decoding Safety

one read (*)

two reads

three reads

four reads

4.8.5 Puzzle Solver

Enter configuration

Exit and save configuration

Puzzle Solver

disable (*)

enable

4.9 Code Selection

Default Code selection	
Parameter	Default
EAN /UPC - Family	EAN 8/EAN 13 / UPC A/UPC E Check digit control no conversion
2/5 Family	Interleaved 2/5 Check digit control and transmission variable code length: 4-55 characters
Code 39 Family	Standard Code 39 no check digit control variable code length: 1-99 characters
Code 128 Family	Code 128 Check digit control without transmission Add GS before code = disabled
Code 93	disabled
Codabar Family	disabled
MSI	disabled
Code 11	disabled
Code 16K	disabled
Code 49	disabled
GS1 DATABAR Codes	disabled

Code selections may be performed according to two different procedures.
Auto configuration - allowing an automatic recognition and selection of the code families to be read
Manual configuration - requiring configuration and selection of each code family to be read.

4.9.1 Code selection: Auto configuration

Note!

The following codes do not require reading the "Enter Configuration" and "Exit and save Configuration" codes.

In auto configuration mode the reader enters a particular state, during which it reads, recognizes and saves all information received from the decoding of an existing code (with the exception of MSI, Code 49 and Code 16k code types) . In this way, the code families will be automatically configured.
It is possible to configure up to 10 code types, whose length is variable and check digit ignored. If reading different codes belonging to the same family, information about the last code will overwrite the information about the previous one.

Follow the given procedure to auto-configure the desired code families

Caution!
Failure

The barcode reader is unable to read codes.

During the auto configuration procedure you must read a code. If no code is read the configuration will be empty and therefore the reader will be unable to read codes.

1. Read the following code to enter the auto configuration mode:

auto-configuration

2. Read an existing code belonging to the code families that you need to configure.
3. Read the following code to save the configuration automatically and return to the reader's normal functioning.

$-

If you need to change the configuration there are three possibilities

1. Repeat the auto configuration procedure, or
2. follow the manual configuration by setting the parameters for each single code family, or
3. Read the "Restore Default" code. See chapter 4.1
   Be careful that in the latter case all reader parameters will be restored.

4.9.2 Code selection: Manual configuration

To change the default values

1. Read the "Enter Configuration" code once.
2. Read configuration codes from the desired groups
   or follow the procedure given for this code group.
3. When desired you can change further configuration codes directly.
4. Read the "Exit and Save Configuration" code once.

Enter configuration

Exit and save configuration

Code selection

Disable all code families

Note!

The reader allows up to 10 code selections. This does not limit the number of CODES enabled to 10, as it depends on the code family.

Single selection =	ONE combination code from the EAN family
	ONE code from the 2/5 family

Example

5 code selections:

1. 2/5 Interleaved
2. 2/5 Industrial
3. Code 128 + EAN 128
4. Code 39 Full ASCI + Code 32
5. UPC A/UPC E
6. etc.

In this section all SINGLE code selections are in bold text.

EAN/UPC - Family

Enter configuration

$+

Exit and save configuration

$-

EAN/UPC - FAMILY

disable the family EAN/UPC

AA0

EAN 8/EAN 13/UPC A/UPC E with and without ADD ON

AA8

without ADD ON

EAN 8/EAN 13/UPC A/UPC E (*)

AA1

EAN 8/EAN 13

AA3

UPC A/UPC E

AA4

with ADD ON 2 and 5

EAN 8/EAN 13/UPC A/UPC E

AA5

EAN 8/EAN 13

AA6

UPC A/UPC E

AA7

with ADD ON 2 only

Enter configuration

Exit and save configuration

EAN 8/EAN 13

UPC A/UPC E

with ADD ON 5 only

EAN 8/EAN 13

UPC A/UPC E

with and without ADD ON

EAN/UPC with and without ADD ON no autodiscrimination (*)

EAN/UPC autodiscrimination ADD ON by prefix

SELECT EAN/UPC PREFIXES

Note!

When scanning the following codes, barcodes starting with the selected prefixes will be read and transmitted only if the ADD ON is present. If no ADD on is found, the barcode will not be read. Barcodes starting with different characters are read regardless of ADD ON presence and transmitted always without ADD ON.

Enter configuration

Exit and save configuration

Cancel all selections (*)

select one or more of the following prefixes:

378/379

434/439

414/419

977

978

979

The commands above are not mutually exclusive. They can be used to configure more than one set of prefixes simultaneously.

Example

The following string allows reading and transmitting with ADD ON all EAN/UPC starting with the 434/439, 977 and 978 prefixes.

1. EAN/UPC Autodiscrimination ADD ON by Prefix.
2. 434/439: enables reading and transmission with ADD ON of all EAN/UPC barcodes starting with 434/439 prefixes.
3. 977: enables reading and transmission with ADD ON of all EAN/UPC barcodes starting with 977 prefix.
4. 978: enables reading and transmission with ADD ON of all EAN/UPC barcodes starting with 978 prefix.

EAN/UPC Autodiscrimination ADD ON by prefix +

AA8Ad1

434/439 +

ET3434ET4439

977 +

ET7977

978 +

ET8978

To clear the current prefix selections:

1.) Cancel all selections

ET0

Enter configuration

$+

Exit and save configuration

$-

EAN/UPC CHECK DIGIT TX SELECTIONs
For each code type in this family you can choose to transmit the check digit or not.

EAN 8 Check Digit Transmission

disabled

AAG0

enabled (*)

AAG1

EAN 13 Check Digit Transmission

disabled

AAH0

enabled (*)

AAH1

UPC A Check Digit Transmission

disabled

AAI0

enabled (*)

AAI1

UPC E Check Digit Transmission

disabled

AAJ0

enabled (*)

AAJ1

CONVERSION OPTIONS

UPC E to UPC A conversion

AAA

UPC E to EAN 13 conversion

AAB

UPC A to EAN 13 convertion

AAC

EAN 8 to EAN 13 convertion

AAD

ISBN Conversion Codes

Enter configuration

Exit and save configuration

Enable only ISBN

Enable only ISSN

Enable ISBN and ISSN

Disable ISBN and ISSN

2/5 - Family

Enter configuration

Exit and save configuration

2/5 - FAMILY

disable the Family 2/5

- Read the desired family code.

Interleaved 2/5 (*)

Normal 2/5 (5 Bars)

Industrial 2/5 (IATA)

Matrix 2/5 (3 Bars)

- Read the check digit selection

Enter configuration

$+

Exit and save configuration

$-

no check digit control

1

check digit control and transmission

2

check digit control without transmission

3

- Read 4 numbers for the code length where:

First 2 digits = minimum code length

Second 2 digits = maximus code length

The maximum code length is 99 characters.
The minimum code length must always be less than or equal to the maximum.
Examples:
0199 = variable from 1 to 99 digits in the code.
1010 = 10 digit code length only.

French pharmaceutical code

The pharmaceutical code below is part of the 2/5 family but has no check digit or code length selection.

Code CIP/HR (french pharmaceutical code)

AC5

Code 39 - Family

Enter configuration

Exit and save configuration

Code 39 - FAMILY

disabled the Code 39 family

- Read the desired family code.

Standard Code 39 (*)

Full ASCII Code 39

- Read a check digit selection

no check digit control (*)

Check digit control and transmission

Check digit control without transmission

French pharmaceutical code and Italian pharmaceutical code

The pharmaceutical codes below are part of the Code 39 family but have no check digit selections.

Code CIP 39 (French pharmaceutical code)

Code 32 (Italian pharmaceutical code)

Enter configuration

Exit and save configuration

Code Length optional
The code length selection is vaild for the entire Code 39 family

Set Code length

Read the code + 4 numbers for the code length where
First 2 digits = minimum code length
Second 2 digits = maximum code length

The maximum code length is 99 characters.
The minimum code length must always be less than or equal to the maximum.
Examples
0199 = Code length variable from 1 to 99
1010 = 10 digit code length only.

Code 128 - Family

Enter configuration

Exit and save configuration

Code 128 - FAMILY

disable the Code 128 family

- Read the desired family code.

Code 128 (*)
control without transmission of check digit

ISBT 128
enabling ISBT 128 automatically disables Puzzle Solver

EAN 128
control without transmission of check digit

Transmit GS Before Code

Enter configuration

Exit and save configuration

disable (*)

enable

Code length optional
The code length selection is valid for the entire 128 family.

Set code length

Read the code +4 numbers for the code length where:
First 2 digits = minimum code length
Second digits = maximum code length

The maximum code length is 99 characters.
The minimum code length must always be less than or equal to the maximum.
Examples:
0199 = variable from 1 to 99 digits in the code.
1010 = 10 digit code length only.

Code 93 - Family

Enter configuration

Exit and save configuration

Code 93 FAMILY

disable Code 93 family (*)

Code 93
control without transmission of check digit

Codabar Family

Enter configuration

Exit and save configuration

Standard Codabar

- Read the desired equality control code.

Standard Codabar
no start/stop character equality control

Standard Codabar
Start/stop character equality control

- Read a start/stop transmission selection

no transmission

transmission

Codabar ABC

Codabar ABC forced concatenation
enable Codabar ABC with forced concatenation
non start/stop character equality control but transmission

Codabar ABC
The Codabar ABC code below uses a fixed start/stop character transmission selection.
non start/stop character equality control but transmission

Code length optional
The code length section is vaild for the entire Codabar family.

Set code length

Read the code + 4 numbers for the code length where
First 2 digits = minimum code length.
Second 2 digits = maximum code length.

The maximum code length is 99 characters.
The minimum code length must always be less than or equal to the maximum.
Examples:
0199 = variable from 1 to 99 digits in the code.
1010 = 10 digit code length only.

Enter configuration

Exit and save configuration

Start / Stop character case in transmission

transmit start/stop characters in lower case

transmit start/stop character in upper case

MSI - Family

Enter configuration

Exit and save configuration

MSI

disable the family MSI (*)

Enable the code by selecting one of the check digit selections.
no check = no check digit control
no tx = no check digit transmission

no check

MOD 10 no tx

MOD 10 with tx

MOD 11 - MOD 10 no tx

Enter configuration

$+

Exit and save configuration

$-

MOD 11 - MOD 10 with tx

AE5

MOD 10 - MOD 10 no tx

AE6

MOD 10 - MOD 10 with tx

AE7

Code 11

Enter configuration

$+

Exit and save configuration

$-

Code 11

disable the Code 11 family (*)

AG0

Enable the code by selecting one of the check digit selections.
no check = no check digit control
tx = transmission

no check

AG1

Type C with tx

AG21

Type C no tx

AG22

Type K with tx

AG31

Enter configuration

Exit and save configuration

Type K no tx

Type C and type K with tx

Type C and type K no tx

Code 16K

Enter configuration

Exit and save configuration

Code 16K

disable Code 16K (*)

enable Code 16K

Code 49

Enter configuration

Exit and save configuration

Code 49

disabled Code 49 (*)

enabled Code 49

Code GS1 Databar Code Family

Enter configuration

$+

Exit and save configuration

$-

Code GS1 Databar Code Family

disabled GS1 Databar Code Family (*)

AQ0

GS1 Databar Expanded Linear and Stacked

disabled

AQ10

enabled

AQ11

GS1 Databar limited

disabled

AQ20

enabled

AQ21

GS1 Databar Linear and Stacked

disabled

AQ30

enabled

AQ31

4.10 Advanced Formatting

Default Advanced Formatting	
Parameter	Default
Concatenation	disabled
Advanced Formatting	no Advanced Formatting enabled

The Default value is signed with (*)

To change the "Advanced Formatting" Default values

1. Read the "Enter Configuration" code once.
2. Read the configuration codes precisely following the numbered procedure given.
3. When desired you can change further configuration codes directly.
4. Read the "Exit and Save Configuration" code once.

4.10.1 Concatenation

Concatenation

Enter configuration

Exit and save configuration

Concatenation disable (*)

Concatenation enable
Permits the concatenation of two codes defined by code type and length. It is possible to set a timeout for the second code reading and to define code transmission if the timeout expires. The order of transmission is CODE 1 - CODE 2.

Define Concatenation Code 1
Code ID

Read the code type from the Code Identifier table.

Code length

Read an number in the range 0-99 from the Hex/Numeric table.

Enter configuration

$+

Exit and save configuration

$-

Define Concatenation Code 2
Code ID

EK1

Read the code type from the Code Identifier table.

Code length

EL1

Read an number in the range 0-99 from the Hex/Numeric table.

Concatenation Result Code ID
Since you can concatenate codes from different families, you must select the Code ID character of the resulting code. The Code ID character will be sent in the output message only if it is enabled according to the Code Identifier selection.

Use Code 1 ID

EN0

Use Code 2 ID

EN1

ConcatenationTimeout

EJ

Read two numbers in the range 00 to 99.
00 = no Timeout
01-99 = Timeout from 1 to 99 seconds
Define the timeout, which determines the valid waiting period between the two codes, in order to accept concatenation. If the timeout expires, the resulting action will be based on the following selection..
Transmission after Timeout

Enter configuration

Exit and save configuration

no code transmitted after Timeout

only code 1 transmitted (if read) after timeout

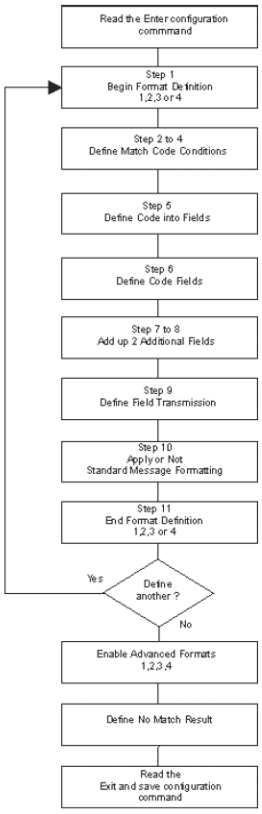
Only code 2 transmitted (if read) after timeout

Either code 1 or code 2 transmitted after timeout

4.10.2 Advanced Formatting

Advanced Formatting

Advanced formatting has been designed to offer you complete flexibility in changing the format of barcode data before transmitting it to the host system. This formatting will be performed when the barcode data meets certain criteria, which you will define in the following procedure.
Up to 4 advanced code management formats can be defined and saved in memory. For each format you must complete the entire configuration procedure.



Enter configuration

$+

Exit and save configuration

$-

Step 1 Begin Format Definition

Begin format 1 definition

HA0

Begin format 2 definition

HA1

Begin format 3 definition

HA2

Begin format 4 definition

HA3

Step 2 Match Code Type

Match Code Type

HB

Read the above code + the code type to match from the Code Identifier Table see chapter 6.2 .

or any code type

HB0

Step 3 Match Code Length

Match Code length

HC

Read the above code + two numbers in the range 01 to 99 for the exact code length.

or any code length

HC00

Step 4 Match with Predefined Characters

no match

HD0HE00

or

Match with 1 character

HD1

Match with a 2-character string

HD2

Enter configuration

Exit and save configuration

Match with a 3-character string

Match with a 4-character string

After selecting the predefined match code, read the character(s) from the HEX table.
Range of characters = 00 to FE

Example
Match Code with the 2-character
predefined string ="@@" einlesen

+ 40 + 40

and position of first character in predefined string

Read the above code + two numbers in the range 01 to 99 representing the character position in the code where the first character of the predefined string must be found.
Read 00 if the match string can be found in any character position.

Step 5 Divide Code into Fields

Divide code into fields

Read one number in the range 1 to 5 to divide the code into fields.

Enter configuration

$+

Exit and save configuration

$-

Step 6 Define Code Fields
Each code field length can be set by either:

Defining a field separator character to be found in the code itself. In this case you can choose to discard the code separator character or include it as the last character of the field.
or by
Defining a match character to be found consecutively repeated in the code itself. In this case the field ends with the first character that does not match.
or by
Specifying a specific character length up to maximum of 99 characters.
or by
Selecting the last field as variable length (if any).
You must define the same number of fields as selected in step 5, including fields that will not be transmitted.

Define field 1 by
either
1.) Field separator

HG0

Read the field separator character from the HEX table. Range of characters = 00 to FE.

discard separator

0

include separator

1

or 2.) Match character

HG3

Read the match character from the HEX table = 00 to FE.

or 3.) Field length

HG1

Read two numbers in the range 01 to 99 to define the field length.

Enter configuration

Exit and save configuration

or 4.) this is the last field (variable length)

and Field 1 Terminators
no field terminators

1 field terminator

2 field terminators

Read the field terminator character(s) from the HEX table. Valid range of characters for all readers = 00 to FE.

Define Field 2 by
either
1.) field separator

Read the field separator character from the HEX table. Range of characters = 00 to FE.

discard separator

include separator

or 2.) Match character

Read the match character from the HEX tabel. Range of characters= 00 bis FE

Enter configuration

Exit and save configuration

or 3.) Field length

Read two numbers in the range 01 to 99 to define the field length.

or 4.) this ist the last field (variable length)

and Field 2 Terminators
no field terminators

1 field terminator

2 field terminators

Read the field terminator character(s) from the HEX table. Valid range of characters for all readers = 00 to FE.

Define field 3 by
either
1.) Field separator

Read the field separator character from the HEX table. Range of characters = 00 bis FE

discard separator

include separator

Enter configuration

$+

Exit and save configuration

$-

or 2.) Match character

HG3

Read the match character from the HEX table. Range of character = 00 bis FE

or 3.) Field length

HG1

Read two numbers in the range 01 to 99 to define the field length.

or 4.) this is the last field (variable length)

HG2

and Field 3 terminator
no field terminators

HH0

1 Field terminator

HH1

2 Field terminators

HH2

Read the field terminator character(s) from the HEX table. Valid range of characters for all readers = 00 to FE.

Define Field 4 by
either
1.) Field separator

HG0

Read the field separator character form the HEX table. Range of characters= 00 bis FE

Enter configuration

Exit and save configuration

discard separator

include separator

or 2.) Match character

Read the match character from the HEX table. Range of the characters = 00 bis FE

or 3.) Field length

Read two numbers in the range 01 to 99 to define the field length.

or 4.) this is the last field (variable length)

and Field 4 terminators
no field terminators

1 Field terminator

2 Field terminatros

Read the field terminator character(s) from the HEX table. Valid range of characters for all readers = 00 to FE.

Enter configuration

$+

Exit and save configuration

$-

Define Field 5 by
either
1.) Field separator

HG0

Read the field separator character form the HEX table. Range of characters= 00 to FE.

discard separator

0

include separator

1

or 2.) Match character

HG3

Read the match character from the HEX tabel. Range of characters = 00 to FE

or 3.) Field length

HG1

Read two numbers in the range 01 to 99 to define field length.

or 4.) this is the last field (variable length)

HG2

and Field 5 terminators
no field terminators

HH0

Enter configuration

Exit and save configuration

1 Field terminator

2 Field terminators

Read the field terminator character(s) from the HEX table. Valid range of characters for all readers = 00 to FE.

Step 7 First additional Fixed Field

no fixed field

1 character fixed field

2 character fixed field

3 character fixed field

4 character fixed field

5 character fixed field

6 character fixed field

After selecting one of the Additional Fixed Field codes, read the corresponding character(s) from the HEX tabel. Range of characters = 00 bis FE

Example:
4 character fixed field

+ 4D + 41 + 49 + 4E = MAIN

Step 8 Second Additional Fixed Field

Enter configuration

$+

Exit and save configuration

$-

no fixed field

HJ0

1 character fixed field

HJ1

2 character fixed field

HJ2

3 character fixed field

HJ3

4 character fixed field

HJ4

5 character fixed field

HJ5

6 character fixed field

HJ6

Step 9 Field Transmission

Number of fields to transmit

HK

Read one number in the range 1 to 7 for the number of fields to transmit. Include only fields to be transmitted.

Field Order Transmission
Read the codes corresponding to the fields to transmit in the order in which they are to be transmitted. A field can be transmitted more than once. See example.

Field 1

1

Field 2

2

Enter configuration

Exit and save configuration

Field 3

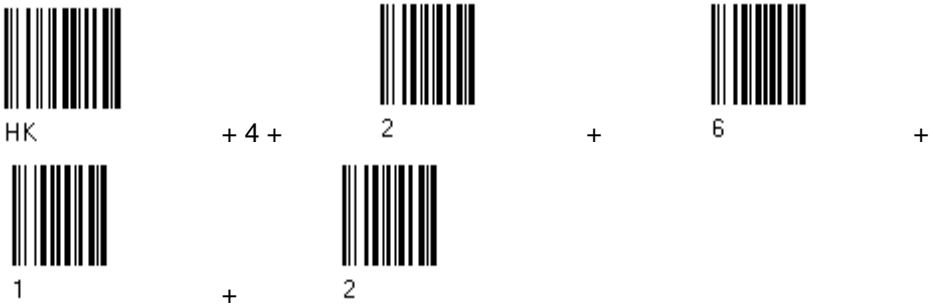
Field 4

Field 5

additional field 1

additional field 2

Example:
The barcode is divided into 3 defined fields plus 1 additional fixed field.
Transmit in the order: Field 2, Additional Field 1, Field 1, Field 2.



Step 10 Standard Formatting

Do not apply Standard Formatting

Apply Standard Formatting

After performing Advanced Formatting on the barcode read, Standard Formatting (Headers, Code Length, Code ID, Terminators) can be applied to the message to be transmitted.

Step 11 End Format Definition

Enter configuration

Exit and save configuration

End Format 1 Definition

End Format 2 Definition

End Format 3 Definition

End Format 4 Definition

Enable Advanced Format

No Advanced Formats enabled (*)

Advanced Format 1 enable

Advanced Format 1 disable

Advanced Format 2 enable

Advanced Format 2 disable

Advanced Format 3 enable

Advanced Format 3 disable

Advanced Format 4 enable

Advanced Format 4 disable

No Match Result
This selection determines the action to be taken when codes read do not conform to the advanced format requisites (no match).

Enter configuration

Exit and save configuration

Clear data - no transmission

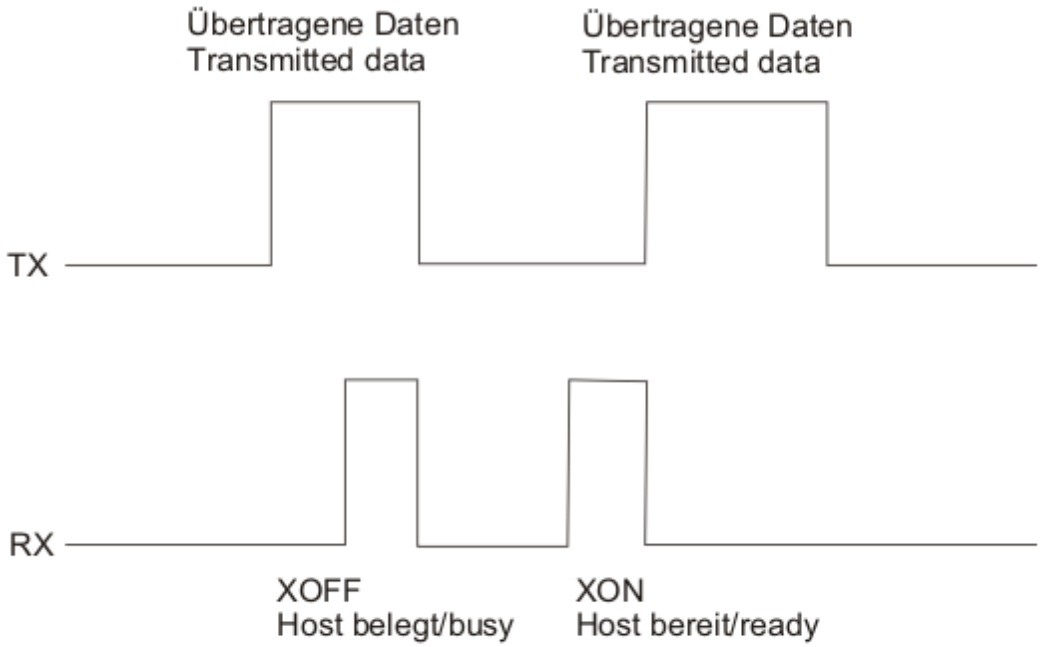
transmit data using standard format

Codes not matching can be ignored, cleared from memory not transmitted.
Codes not matching can be transmitted using the Standard formatting (Headers, Code Length, Code ID, Terminators).

5 References

5.1 References RS232 Parameters

Handshaking
Handshaking Software-Handshaking (XON/XOFF)
During transmission between Cradle and Host, it the Host sends the XOFF character (13 Hex), the decoder interrupts the transmission with a maximum delay of one character and only resumes when the XON character (11 Hex) is received.



XON/XOFF Handshaking

ACK/NACK

PSCAN-D-1

This parameter sets a transmission protocol in which the Host responds to the reader after every code transmitted. The Host sends a ACK character (06HEX) in the case of good reception or the NACK character (15HEX) requesting re-transmission, in the case of bad reception.

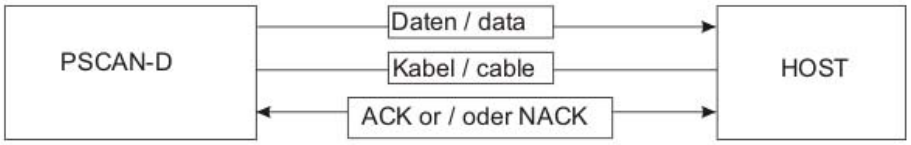


Figure 5.1ACK/NACK enabled

5.2 References Reading parameters

Trigger Signal

This mode determines how the reading phase is controlled when the hardware trigger operating mode is selected:

- Trigger acive level: the reader goes (ON), when the trigger is pressed and goes OFF when it is released.
- Trigger active pulse: the reader goes (ON), at the first trigger press and goes (OFF), only at a second press.

Trigger Click

When enabled, it activates a "click" sound upon each trigger pressure.

Trigger-Off Timeout

When this timeout is selected, the reader turns OFF automatically after the desired period of time.

Reads per Cycle

A reading cycle depends on the trigger signal selection and on the trigger timeout selection. When one read per cycle is selected, the barcodereader turns off as soon as a vaid code is decoded. To turn the reader on again, release and again press the trigger in case the reader is operating in "trigger level mode", pull the trigger if the reader is operating in "trigger pulse mode".
When multiple reads per cycle is selected, the scanner turns off after a good decoding for the time necessary to transmit the code and activate the beeper, then it turns on again. The barcodereader turns off after a trigger press according to the "trigger signal" selection or when the timeout expires.
The safety Time parameter can be used in this case to avoid unwanted multiple reading of the same code, see safety time below.

Safety Time

Safety time prevents the device from immediately decoding the same code more than once. Same code consecutive reading can be disabled requiring the reader to remove from the code (no decoding) for at least 400 ms, or a timeout can be set up to 9.9 seconds before the decoder will accept the same code. Reading is immediately if the code changes.

5.3 References Decoding parameters

Caution!
Malfunciton of the barcode reader

With changing this parameters the reading performance can be degraded or increase the possibility of a decoding error.

These parameters must be absolutely correctly adjusted.

Ink-Spread

The ink-spread parameter allows the decoding of codes, which are not perfectly printed because the page texture tends to absorb the ink.

Overflow Control

The overflow control parameter can be disabled when decoding codes printed on small surfaces, which do not allow the use of an overflow space. This command does not affect code families 2/5, Code 128 and Code 93.

Interdigit Control

The interdigit control parameter verifies the interdigit spacing for code families Code 39 and Codabar.

6 Codes and Character Sets

6.1 Single codes

- To enter numerical values, scan successively the digits 0-9.
- Read alphanumeric values by scanning their hex values. I.E. 'L' (hexadecimal value: 4C): first scan '4' then 'C'.

 0	 1	 2
 3	 4	 5
 6	 7	 8
 9	 A	 B
 C	 D	 E
 F	 G	 H
 I	 J	 K
 L	 M	 N

O	P	Q
R	S	T
U	V	W
X	Y	Z

6.2 Code Identifier Table

2/5 Interleaved

N

2/5 Industrial

P

2/% normal 5 bars

O

2/5 matrix 3 bars

Q

EAN 8

A

EAN 13

B

UPC A

C

UPC E

D

EAN 8 mit 2 ADD ON

J

EAN 8 mit 5 ADD ON

K

EAN 13 mit 2 ADD ON

L

EAN 13 mit 5 ADD ON

M

UPC A mit 2 ADD ON

F

UPC A mit 5 ADD ON

G

UPC E mit 2 ADD ON

H

UPC E mit 5 ADD ON

I

Code 39

V

Code 39 Full ASCII

W

Codabar

R

ABC Codabar

S

Code 128

T

EAN 128

k

Code 93

U

CIP/39

Y

CIP/HR

e

Code 32

X

ISBT 128

f

MSI

Z

Code 16K

p

Code 11

b

Code 49

q

GS1 Databar Expanded Linear and Stacked

t

GS1 Databar Limited

v

GS1 Databar 14 Linear and Stacked

u

6.3 Configuration Codes

Enter configuration

$+

Exit and save configuration

$-

Abort current setting

$%

Cancel all current settings (without exit)

$/

Send Firmware Version

$+$!

Restore Default

$+$*

6.4 Character Sets / Character Codes

Decimal	Hexa-decimal	Character	Decimal	Hexa-decimal	Character	Decimal	Hexa-decimal	Character
32	20 h	SPACE	64	40 h	@	96	60 h	`
33	21 h	!	65	41 h	A	97	61 h	a
34	22 h	"	66	42 h	B	98	62 h	b
35	23 h	#	67	43 h	C	99	63 h	c
36	24 h	$	68	44 h	D	100	64 h	d
37	25 h	%	69	45 h	E	101	65 h	e
38	26 h	&	70	46 h	F	102	66 h	f
39	27 h	'	71	47 h	G	103	67 h	g
40	28 h	(	72	48 h	H	104	68 h	h
41	29 h	)	73	49 h	I	105	69 h	i
42	2A h	*	74	4A h	J	106	6A h	j
43	2B h	+	75	4B h	K	107	6B h	k
44	2C h	,	76	4C h	L	108	6C h	l
45	2D h	-	77	4D h	M	109	6D h	m
46	2E h	.	78	4E h	N	110	6E h	n
47	2F h	/	79	4F h	O	111	6F h	o
48	30 h	0	80	50 h	P	112	70 h	p
49	31 h	1	81	51 h	Q	113	71 h	q
50	32 h	2	82	52 h	R	114	72 h	r
51	33 h	3	83	53 h	S	115	73 h	s
52	34 h	4	84	54 h	T	116	74 h	t
53	35 h	5	85	55 h	U	117	75 h	u
54	36 h	6	86	56 h	V	118	76 h	v
55	37 h	7	87	57 h	W	119	77 h	w
56	38 h	8	88	58 h	X	120	78 h	x
57	39 h	9	89	59 h	Y	121	79 h	y
58	3A h	:	90	5A h	Z	122	7A h	z
59	3B h	;	91	5B h	[	123	7B h	{
60	3C h	<	92	5C h	\	124	7C h	|
61	3D h	=	93	5D h	]	125	7D h	}
62	3E h	>	94	5E h	^	126	7E h	~
63	3F h	?	95	5F h	_	127	7F h	DEL

ASCII control characters

Decimal	Hexadecimal	Character	Meaning of the most important Control characters
0	00 h	NUL	without effect
1	01 h	SOH	Start of header
2	02 h	STX	Start of text
3	03 h	ETX	End of text
4	04 h	EOT	End of transmission
5	05 h	ENQ	Enquiry
6	06 h	ACK	Acknowledge
7	07 h	BEL	Bell
8	08 h	BS	Back space
9	09 h	HT	Horizontal tabulating
10	0A h	LF	Line feed
11	0B h	VT	Vertical tabulating
12	0C h	FF	Form Feed Formularverschub
13	0D h	CR	Carriage Return
14	0E h	SO	SHIFT out, Dauerumschaltungs zeichen
15	0F h	SI	SHIFT in
16	10 h	DLE	Data link escape
17	11 h	DC1	XON
18	12 h	DC2	
19	13 h	DC3	XOFF
20	14 h	DC4	
21	15 h	NAK	Negative acknowledge
22	16 h	SYN	Sync character
23	17 h	ETB	End of transmission block
24	18 h	CAN	Cancel
25	19 h	EM	End of Medium
26	1A h	SUB	Substitute
27	1B h	ESC	ESCAPE
28	1C h	FS	FIELD separator
29	1D h	GS	Group separator
30	1E h	RS	Record separator
31	1F h	US	Until separator, Space

7 Maintenance and repair

7.1 Repair

The devices must not be repaired, changed or manipulated.
Please contact your local Pepperl+Fuchs sales representative for further instructions.

7.2 Installation cable "Cable PSCAN-D-1D" to barcode reader PSCAN-D-*

Exchange of the cable on barcode reader PSCAN-D-1*

7.2.1 Scope of supply

Accessory	Model number	Order numer
Cable PSCAN-D-1D	SPAREPARTS-PSCAN-D-EX-CABLE	242867

7.2.2 Removing old cable at the PSCAN-D-1*

Removing old cable

1. Make sure that the barcode reader is disconnected from the mains during installation.
2. Unscrew the screw at the barcode reader.

3. First slide down the strain relief and then the cover over the yellow "tooth". Slide down the cable spacer.

4. Pull the plug out of the handle and pull down the plasic boot and the rubber gasket.

7.2.3 Connecting the new cable

Figure 7.1(1) rubber gasket

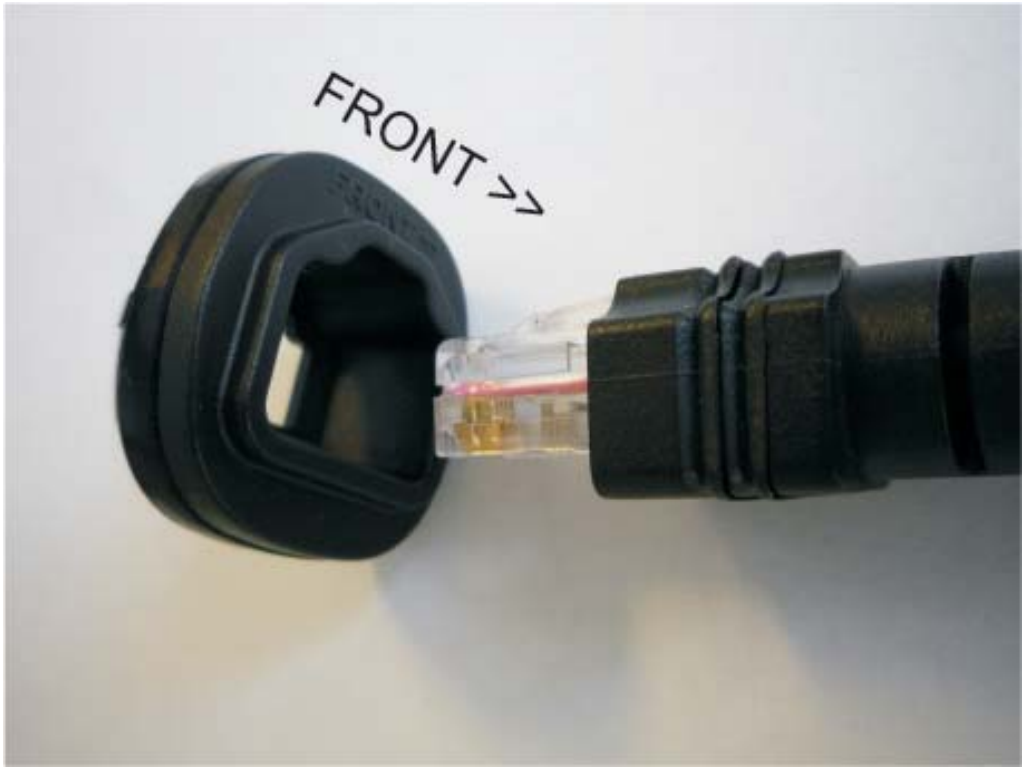
(2) plastic boot
(3) cable spacer
(4) cover
(5) strain relief

Install the new cable on the barcode reader

1. Make sure that the barcode reader is disconnected from the mains during installation.
2. Slip the cover (4) over the cable.
3. Push the plastic boot (2) into the rubber gasket (1). Take care that the tab on the plastic boot (2) is aligned with the notch in the rubber gasket.

(1) notch
(2) tab

4. Insert the cable into the socket of the plastic boot (2) with the rubber gaskett (1). Ensure that the "FRONT" markting on the plastic boot (2) is facing out.



5. Insert the cable with the plastic boot (2) and gasket (1) into the handle. Ensure that the "FRONT" markting on the plastic boot (2) is facing out, with the arrow pointing towards the front of the barcode reader.

6. Insert the cable spacer (3) into the cable wire and slide it towards the handle.

(3) cable spacer

7. Push the cover (4) along the cable towards the reader, and hook it over the yellow "tooth".

8. Insert the strain relief (5) into the cover (4) and tighten the screw to fix the whole assembly to the reader handle.

8 PSCAN-D-1* NON EX

Order designation	Order number
PSCAN-D-1D-N0-R2-N	214217-0003

8.1 Device components

Barcode reader + connecting cable consisting of a helix cable 2 m and a male 8-pin connector , (M12 connector) mounted.

8.2 Product Specifications

Technical data of the barcode reader PSCAN-D-1D-NO-R2-N: please refere to the datasheet of the company Datalogic "PowerScan D8330".

The interface of the barcode reader is compatible to the Pepperl+Fuchs NON EX devices with the interface RS 232. (e. g. operator panel: TERM)

8.3 Accessory PSCAN-D-1* NON EX

Acessory	Order designation	Order number
Replacement cable for barcode reader PSCAN-D-1* NON EX	SPAREPARTS-PSCAN-D-GP-CABLE	242487
Cable with socket (8-pin)	SPARE-PSCAN-PLUG-TERM	221979

8.3.1 Replacement cable for barcode reader PSCAN-D-1* NON EX

The replacement cable SPAREPARTS-PSCAN-D-GP-CABLE is a sparepart of the barcode reader PSCAN-D-1* NON EX

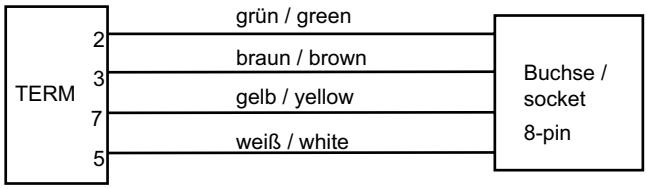
M12 Connector 8-pin

Connector RJ12

8.3.2 Cable with socket 8-pin

Socket

Terminalassignment Operator panel TERM



9 Appendix

9.1 Type code PSCAN-D-1*

Barcode reader Type	Barcode Type	Protection	Interface	Version	Options	
PSCAN-D	corded barcode reader, helix cable, length 5 m max. with M12 5-pin plug connector					
	Barcode Type					
	-1D	Lineare Barcodes				
		EX Protection				
		-F2	ATEX II 2G Ex ib [op is] IIB T4 Gb (Zone 1), II 2D Ex ib [op is] IIIB T135°C Db (Zone 21)			
		-R1	Class I, II, III, Div 1, Group C - G, T4			
		N0	Non Ex			
			Interface/Protocol/electrical signal type			
			-05	with TERMEX interface		
			-20	with VisuNet, iPC-Ex, Stand Alone Interface		
			RS	with RS 232 interface		
				Version		
				-10	Version 1.0	
					Option	
					-N	no option
					-Y	customised

Not all features can be combined. Please contact your local Pepperl+Fuchs partner.

9.2 Connection PSCAN-D-1* to a 4-pin socket (devices in previous versions)

Accessory	Order designation	Order number
Adapter cable	ADAPTERCABLE-PSCAN-TERMEX-01	217298

Adapter cable

This adapter cable is necessary for the following applications:

1. Connecting the PSCAN-D-1* to a TERMEX with housing equipped with 4-pin socket
2. Connecting the PSCAN-D-1* to a VisuNet with housing equipped with 4-pin socket
3. Connecting the PSCAN-D-1* to an iPC-Ex with housing equipped with 4-pin socket
4. Connecting the PSCAN-D-1* to a Box A2

9.3 Certifications

Declaration of Conformity Pepperl+Fuchs

EC-Type Examination CertificateBVS 09 ATEX E 075

Declaration of Conformity for special conditions for the installation in zone 22

Konformitätserklärung / Declaration of Conformity

nach EN ISO/IEC 17050-1:2004 / in accordance with EN ISO/IEC 17050-1:2004

Konformitätserklärung /Declaration of Conformity: PF08CERT1279

Diese Konformitätserklärung gilt nur in Zusammenhang mit dem gültigen Pepperl+Fuchs Datenblatt und Betriebsanleitung für alle Pepperl+Fuchs Produkte, die unter die Richtlinie 2006/95/EG (Niederspannungsrichtlinie), 2004/108/EG (EMV) und 94/9/EG (ATEX) fallen.

This Declaration of Conformity is only valid in connection with the valid datasheet and instruction of Pepperl+Fuchs, for all Pepperl+Fuchs products that are relevant to the EC-directive 2006/95/EG (Low Voltage Directive), 2004/108/EG (EMC) and 94/9/EG (ATEX)

Die Pepperl+Fuchs GmbH, Lilienthalstr. 200, 68307 Mannheim, Deutschland erklärt hiermit in alleiniger Verantwortung, daß alle richtlinien-relevanten Produkte mit den angegebenen Normen oder normativen Dokumenten übereinstimmen und, wenn notwendig, von einer zuständigen Stelle freigegeben wurden.

We, Pepperl+Fuchs GmbH, Lilienthalstr. 200, 68307 Mannheim, Germany hereby declare under our sole responsibility that all directive relevant products are in accordance with the listed harmonized standards or normative documents and, where necessary, a competent body has been released.

Angewandte harmonisierte Normen :
Applied harmonized standards

Siehe gültiges Datenblatt, Betriebsanleitung
See valid datasheet, instruction

Benannte Stelle für QS-Überwachung :
Notified body for QA-Assessment

PTB Physikalisch-Technische Bundesanstalt Nr.: 0102

ZERTIFIZIERTES DIN EN ISO 9001 QUALITÄTSMANAGEMENTSYSTEM
Reg. Nr. 14 760-02

Hersteller Unterschrift : Signature of manufacturer	Dr. Adolphs	Dr. Kegel
Funktion des Unterzeichners : Function of the signer	Geschäftsführer Managing Director	Geschäftsführer Managing Director

Datum / date : November 2008

PEPPERL+FUCHS

Translation

(1) # EC-Type Examination Certificate

(2) **- Directive 94/9/EC -**
Equipment and protective systems intended for use in potentially explosive atmospheres

(3) # BVS 09 ATEX E 075

(4) **Equipment:** **Barcode reader type PSCAN-D-1*-E2***

(5) **Manufacturer:** **Pepperl + Fuchs GmbH**

(6) **Address:** **68301 Mannheim, Germany**

(7) The design and construction of this equipment and any acceptable variation thereto are specified in the appendix to this type examination certificate.

(8) The certification body of DEKRA EXAM GmbH, notified body no. 0158 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament and the Council of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive.
The examination and test results are recorded in the test and assessment report BVS PP 09.2077 EG.

(9) The Essential Health and Safety Requirements are assured by compliance with:

EN 60079-0:2006 General requirements
EN 60079-11:2007 Intrinsic safety ´i´
EN 60079-28:2007 Optical radiation

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the appendix to this certificate.

(11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to Directive 94/9/EC.
Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate

(12) The marking of the equipment shall include the following:

II 2G Ex ib [op is] IIB T4

DEKRA EXAM GmbH
Bochum, dated 17. July 2009

Signed: Simanski
Certification body

Signed: Ruhnau
Special services unit

DEKRA EXAM GmbH Dinnendahlstrasse 9 44809 Bochum Germany Phone +49 234/3696-105 Fax +49 234/3696-110 E-mail zs-exam@dekra.com

(13) Appendix to

(14) # EC-Type Examination Certificate

BVS 09 ATEX E 075

(15) 15.1 Subject and type

Barcode reader type PSCAN-D-1*-E2*
Instead of the *** in the complete denomination numerals and letters will be inserted which characterize different modifications without influence on explosion protection of the barcode reader.

15.2 Description

The barcode reader is used in hazardous areas for reading of barcode markings and for data transmission. The electrical connection is by means of a permanently connected cable.

15.3 Parameters

Voltage	Ui	DC 9	V
Current	Ii	400	mA
Power	Pi	1.5	W
Internal capacitance	Ci	negligible	
Internal inductance	Li	10	µH
Ambient temperature range	Ta	-10 °C up to +50 °C	

(16) Test and assessment report

BVS PP 09.2077 EG as of 17.07.2009

(17) Special conditions for safe use

None.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

44809 Bochum, 30. July 2009
BVS-Schu / Her A 20090197

DEKRA EXAM GmbH

Certification body

Special services unit

DEKRA EXAM GmbH Dinnendahlstrasse 9 44809 Bochum Germany Phone +49 234/3696-105 Fax +49 234/3696-110 E-mail zs-exam@dekra.com

Translation

(1) 1. Supplement to the EC-Type Examination Certificate

(2) Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC
Supplement accordant with Annex III number 6

(3) No. of EC-Type Examination Certificate: **BVS 09 ATEX E 075**

(4) Equipment: **Barcode reader type PSCAN-D-1*-*2***

(5) Manufacturer: **PEPPERL + FUCHS GMBH**

(6) Address: **68307 Mannheim, Germany**

(7) The design and construction of this equipment and any acceptable variation thereto are specified in the appendix to this supplement.

(8) The certification body of DEKRA EXAM GmbH, notified body no. 0158 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament and the Council of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive. The examination and test results are recorded in the test and assessment report BVS PP 09.2077 EG.

(9) The Essential Health and Safety Requirements are assured by compliance with:

EN 60079-0:2009 General requirements
EN 60079-11:2007 Intrinsic safety ´i´
EN 60079-28:2007 Optical radiation
EN 61241-11:2006 Intrinsic safety ´iD´

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the appendix to this certificate.

(11) This supplement to the EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to Directive 94/9/EC.
Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the equipment shall include the following:

Ex	**II 2G Ex ib [op is] IIB T4 Gb**	Type PSCAN-D-1*-E2* Type PSCAN-D-1*-C2*
	II 2G Ex ib [op is] IIB T4 Gb **II 2D Ex ib [op is] IIIB T135°C Db**	Type PSCAN-D-1*-F2*

DEKRA EXAM GmbH
Bochum, dated 31.03.2011

Signed: Simanski
Certification body

Signed: U.Hauke
Special services unit

DEKRA EXAM GmbH Dinnendahlstrasse 9 44809 Bochum Phone +49.234.3696-105 Fax +49.234.3696-110 zs-exam@dekra.com

(13) Appendix to

(14) **1. Supplement to the EC-Type Examination Certificate**
BVS 09 ATEX E 075

(15) 15.1 Subject and type

Barcode reader type PSCAN-D-1*-E2*
Barcode reader type PSCAN-D-1*-C2*
Barcode reader type PSCAN-D-1*-F2*

15.2 Description

The reader can be modified according to the descriptive documents as mentioned in the pertinent test and assessment report. The reader has been assessed in acc. with EN 60079-0:2009; new types are available:
Type PSCAN-D-1*-C2* and
Type PSCAN-D-1*-F2*
Type Typ PSCAN-D-1*-F2* has also been assessed in acc. with EN 61241-11:2006 for use in areas where Category 2D equipment is required.

15.3 Parameters

Voltage	Ui	DC	9	V
Current	Ii		400	mA
PowerPi			1.5	W
Internal capacitance	Ci			negligible
Internal inductance	Li		10	µH
Ambient temperature range	Ta		-10 °C up to +50 °C	

(16) Test and assessment report

BVS PP 09.2077 EG as of 31.03.2011

(17) Special conditions for safe use

None

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA EXAM GmbH
44809 Bochum, 31.03.2011
BVS-Schu/Schae A 20110197

Certification body

Special services unit

DEKRA EXAM GmbH Dinnendahlstrasse 9 44809 Bochum Phone +49.234.3696-105 Fax +49.234.3696-110 zs-exam@dekra.com

Konformitätsaussage / Statement of Conformity

Konformitätsaussage: PF 11 CERT 1897
Statement of Conformity:

Produktbezeichnung: BOX-A9-PSCAN-F2-N #238609
Description

Diese Konformitätsaussage gilt nur in Zusammenhang mit dem gültigen Pepperl+Fuchs Datenblatt und der gültigen Pepperl+Fuchs Betriebsanleitung.
This Statement of Conformity is only valid in connection with the valid datasheet of Pepperl+Fuchs and the valid instruction of Pepperl+Fuchs.

Die Pepperl+Fuchs GmbH, Lilienthalstr. 200, 68307 Mannheim, Deutschland erklärt hiermit in alleiniger Verantwortung, dass das oben genannte Produkt den Anforderungen gemäß EN 60079-11: 2007, Abs 5.7 Einfache elektrische Betriebsmittel entprechen. Es wird gemäß Richtlinie 94/9/EG (ATEX-Richtlinie) bzw. dem ATEX Leitfaden Abs. 5.2.1 als einfaches elektrisches Gerät eingestuft und kann entsprechend verwendet werden.
Das genannte Produkt ist für eigensichere Stromkreise einsetzbar und wird dann der Temperaturklasse T4 zugeordnet.

We, Pepperl+Fuchs GmbH, Lilienthalstr. 200, 68307 Mannheim, Germany hereby declare under our sole responsibility that the above mentioned product is according to the requirements of EN 600079-11: 2007 para. 5.7 simple apparatus. The device is classified as simple electrical device according to directive 94/9/EC (ATEX directive) and ATEX guidelines para. 5.2.1 and can be used in this way.
Mentioned product may be used in intrinsically safe circuits. The device is classified to temperature class T4.

Kennzeichnung
Marking

Simple apparatus according to EN 60079-11

Besondere Bedingungen für den Einsatz in Zone 21
Special conditions for the installation in zone21

Nur verwendbar in Zone 21 mit nichtleitfähigen Staub, Gruppe IIIB
Only for use in Zone 21 with non-conductive dust, group IIIB

ZERTIFIZIERTES DIN EN ISO 9001 QUALITÄTSMANAGEMENTSYSTEM
Reg. Nr. 14 760-02

Hersteller-Unterschrift:
Signature of manufacturer
Funktion des Unterzeichners:
Function of the signer

ppa. Hermann Best

Director Business Unit
Systems and Solutions

Datum / date : 2011-06-20

PEPPERL+FUCHS

PROCESS AUTOMATION – PROTECTING YOUR PROCESS

Worldwide Headquarters
Pepperl+Fuchs GmbH
68307 Mannheim · Germany
Tel. +49 621 776-0
E-mail: info@de.pepperl-fuchs.com

For the Pepperl+Fuchs representative
closest to you check www.pepperl-fuchs.com/pfcontact

www.pepperl-fuchs.com

PEPPERL+FUCHS
PROTECTING YOUR PROCESS

218221 / DOCT-1791F
02/2015