



HMI & Remote PC Terminals for industrial and hazardous areas – Ex Zone 1 / 2 / 21 / 22

GECMA Components GmbH, Postfach 4146, D-50155 Kerpen

TECHNICAL DATASHEET

CHALLENGER

Remote PC Terminal for hazardous areas - zone 1/2 (Gas), -22* (Dust)

Options & Accessories

All these ACCESSOIRES are carefully selected and works together with the CHALLENGER PC terminals for many years.

Article Code	Product Description	Technical Description
BUTTONS / LOCKS / SWITCHES		
C-E-SW-1	Key switch to lock operation on keyboard and pointing device	
	<ul style="list-style-type: none"> - Key switch to lock operation on CHALLENGER keyboard and pointing device - Integrated in the display enclosure 	<ul style="list-style-type: none"> - Stainless steel 304/1.4301, Plastic
C-E-SW-2	SWITCH to lock terminal operation or onsite operation	
	<ul style="list-style-type: none"> - To lock keyboard/pointing device on the terminal or to lock the onsite operation - Toggle switch 	<ul style="list-style-type: none"> - Pre-mounted in an aluminium frame to fix into free slots in the Rack 42 / Rack 84 - Plastic
C-E-SW-3	Interface for external toggle-or key switch to lock terminal operation or onsite operation	
	<ul style="list-style-type: none"> - External toggle- or key switch for locking terminal keyboard/pointing device - For local side or remote side - Integrated into the Rack 42/Rack 84 	<ul style="list-style-type: none"> - Pre-mounted in an aluminium frame to fix into free slots in the Rack 42 / Rack 84 - Plastic
C-E-SW-4	Key switch to lock terminal operation as well as touch screen operation	
	<ul style="list-style-type: none"> - Key switch to lock terminal keyboard/pointing device as well as the operating with touch screen - Integrated in the display enclosure 	<ul style="list-style-type: none"> - Stainless steel 304/1.4301, Plastic
VIDEO CAMERA & EQUIPMENT		
C-E-CCTV	Ex Camera for zone 1/2/22	
	<ul style="list-style-type: none"> - Colour Camera in EEx d version - Power supply 24 V DC - Very compact only 150 mm l x 80 mm d - 10 to 32 V DC 1.2 W, - reverse polarity protected, 36V protect. - Output: PAL composite video(NTSC available soon) 	<ul style="list-style-type: none"> - IP 65 protected - ATEX: No. 02 ATEX 1271 X, - II 2G D EEx d e IIC T6
C-E-UVI	Universal video input for connection of intrinsically safe PAL, NTSC and SECAM video signals	
	<ul style="list-style-type: none"> - Universal video input - For connection of intrinsically safe PAL, NTSC and SECAM video signals - Via zener barrier (suitable is i.e. Stahl type 9001/02-016-150-111) - Maximum distance: safe area to display is 75 m 	<ul style="list-style-type: none"> - ATEX: DMT 00 ATEX E 089 X, II 2G EEx ib IIC T4 - UL/cUL-listed: Class I, Zone 1, AEx ib IIC T4, Ex ib IIC T4, File E 232869 - UL/cUL-listed: Class I, Div. 2, Groups A,B,C,D T4 File E 232869 - GOST-R/GGTN, IECEx, TIIS, NEPSI...certified



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BARCODE SCANNER & EQUIPMENT

BCSi-C



Intrinsically safe Barcode Scanner CABLE

- BCSi-C Barcode Scanner as cable version
- For all industrial / hazardous production areas
- Interactive vibration feedback after successful scan
- For all common 1D- and 2D-barcodes
- A variety of specific decoding opportunities
- CCD imaging technology
- Displacement for reading 120-230mm
- Utilisable from total darkness up to 9000 ft. candles (96,000 Lux) darkness
- Bi-focus positions for capturing of max. focus-decoding area
- Optical resolution 640x480 pixels (HxV, gray scales)
- Superb first reading rate
- Also suitable for soiled and coloured barcodes
- Data transmission: via RS232, intrinsically safe
- Maximum. data transmission: up to 1000m via ExMod base station (utilisable with or without ExMod station)
- Power: via intrinsically safe interface
- Integrated antenna
- Integrated decoder
- Enclosure: 1.4301 stainless steel / aluminium
- Safe to drop from 1m onto concrete (IEC 60079)
- Ambient temperature range -20°C to +60°C
- IP67 protected (IECEX 60529)
- Rel. humidity 15% to 95% (no condensation allowed)
- Connection: RS232 interface,
- Hazardous areas.....
- Dimensions: 220 x 42 mm
- Weight: approx. 700g excluding cable
- Length of cable: depend of variants.

(Certified probably Jan.09)

BCSi-RF



Intrinsically safe Barcode Scanner RADIO

- BCSi-C Barcode Scanner as Bluetooth version
- For all industrial / hazardous production areas
- Interactive vibration feedback after successful scan
- For all common 1D- and 2D-barcodes
- A variety of specific decoding opportunities
- CCD imaging technology
- Displacement for reading 120-230mm
- Utilisable from total darkness up to 9000 ft. candles (96,000 Lux) darkness
- Bi-focus positions for capturing of max. focus-decoding area
- Optical resolution 640x480 pixels (HxV, gray scales)
- Superb first reading rate
- Also suitable for soiled and coloured barcodes
- Data transmission: Bluetooth technology 1.2 (2.4 GHz)
- Maximum. data transmission: up to 1000m via ExMod base station (utilisable with or without ExMod station)
- Power: via integrated battery pack
- Integrated antenna
- Integrated decoder
- Enclosure: 1.4301 stainless steel / aluminium
- Safe to drop from 1m onto concrete (IEC 60079)
- Ambient temperature range -20°C to +60°C
- IP67 protected (IECEX 60529)
- Rel. humidity 15% to 95% (no condensation allowed)
- Connection: RS232 interface,
- Hazardous areas.....
- Dimensions: 220 x 42 mm
- Weight: approx. 700g excluding cable
- Length of cable: depend of variants

(Certified probably Jan.09)

ExMod



Intrinsically safe Barcode Scanner RADIO

- ExMod as base station for BCSi cable or BCSi RF barcode scanner
 - For data transmission / charging BCSi (depending on variants)
 - Available in various versions: depend on variants the ExMod contains intrinsically safe power supplies, barriers, charging circuits, Bluetooth interfaces and various data transmission interfaces.
 - Data transmission via serial interfaces Ex i or Ex e: RS232i / RS232e / RS422i / RS422e. (max. data transmission eg. RS422 between ExMod and appr. device is 1000m, 3300ft.)
 - Connections are realized via Ex e connection box and via Ex i interfaces
 - All ExMod versions for use in hazardous areas zone 1[0], zone 20 [20], EPL GB [Ga], EPL Db[Da]
- Various models of ExMod 1-2-3 are available:
- 1 - INPUT signals:
 - RF10: (Bluetooth radio frequency module 10mW)
 - RF100: (Bluetooth radio frequency module 100mW)
 - 5V HP: RS232 is interface with 5V high power
 - 5V LP: RS232 is interface with 5V low power
 - 12 HP: RS232 is interface with 12V high power
 - 2 - OUTPUT signals:
 - RS232: Ex i serial interface
 - RS422i: Ex i serial interface
 - RS422e: Ex e serial interface
 - 3 - POWER SUPPLY:
 - AC: 100...227 V AC (±10%)
 - DC: 24 V DC

(Certified probably Jan.09)



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BCSi-C HOLDER



BCS holder for use in hazardous areas

- Holder for BCSi Cable scanner
- To mount on the right side of the keyboard FHP enclosure
- Stainless steel 304/1.4301
- Polished to 240 granulation

BCSi-RF HOLDER

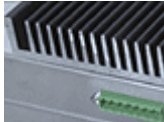


BCS holder for use in hazardous areas

- Holder incl. Charging module for BCSi RF scanner
- To mount on the right side of the keyboard FHP enclosure
- Stainless steel 304/1.4301
- Polished to 240 granulation

HEATING SYSTEMS

HE-20



Heater - min. ambient temperature for enclosure combination: 253° K (-20° C; -4° F)

- Heater HE-20 Min. ambient temperature for enclosure combination: 253° K (-20° C; -4° F)
- Separate power supply 100-240 V AC / 200W is required
- Temperature circuit control only for use with FHP-Enclosure!
- Test Certification No. 102-07/04RS-KP

HE-30



Heater - min. ambient temperature for enclosure combination: 243° K (-30° C; -22° F)

- Heater HE-30 Min. ambient temperature for enclosure combination: 243° K (-30° C; -22° F)
- Separate power supply 100-240 V AC / 200W is required
- Temperature circuit control only for use with FHP-Enclosure
- Test Certification No. 102-07/04RS-KP

OTHER INTERFACES

RS232i



Intrinsically safe RS232i interface

- Intrinsically safe RS232i interface to connect is-devices
- Full duplex capability
- Contains a RS11i receiving unit (in hazardous area) and a TCS1i transmission unit (in safe area)
- IP20 protected
- Certified by ATEX, UL, C-UL, GOST-R/GGTM, IECEx, TIIS, NEPSI...

CABLE & EQUIPMENT

VGA/PS2-1.8m



VGA/PS2 cable 1.8m

- VGA/PS2 cable lead PC to TCV2i Euro card
- Length 1.8 m

VGA/PS2-3m



VGA/PS2 cable 3m

- VGA/PS2 cable lead PC to TCV2i Euro card
- Length 3 m

VGA/PS2-5m



VGA/PS2 cable 5m

- VGA/PS2 cable lead PC to TCV2i Euro card
- Length 5 m

VGA/PS2-10m



VGA/PS2 cable 10m

- VGA/PS2 cable lead PC to TCV2i Euro card
- Length 10 m



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LOUD SPEAKERS & EQUIPMENT

AX 3032



35 W 100 V line amplifier

- 35 W 100 V line amplifier with inputs for PC sound card, tuner or CD player etc.
- 230 V AC powered
- In SAFE AREA mounted
- Surface mounted incl. 3 m connecting cable between PC and amplifier

HS 15



EEXDNT Explosion-Protected Horn Loudspeaker

- Holder for BCS scanner
- HS 15 EEXDNT Explosion-Protected Horn Loudspeaker 15 W
- 100 Volt line transformer version
- Material: aluminum-enclosure / RAL 7031
- NEMKO 98 ATEX 104, EEx d IIB +Hz T6

COUPLINGS FOR BOTTOM MOUNTING

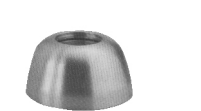
MF



SPECIAL COUPLING MF

- Special coupling to mount at bottom or wall
- Completely enclosed by a stainless steel enclosure
- Including sealing for connection of the Standpipe
- 300° rotation possible
- Stainless steel 304 / 1.4301
- Optionally 316L/1.4404
- Polished to 240 granulation
- Inside diameter 60,3 mm

MFF



SPECIAL COUPLING MFF

- Special coupling to mount at the bottom
- 300° rotation possible
- Completely enclosed by a stainless steel enclosure
- Including sealing for connection of the standpipe
- Stainless steel 304 / 1.4301
- Optionally 316L/1.4404
- Polished to 240 granulation
- Inside diameter 60,3 mm

MISCELLANEOUS

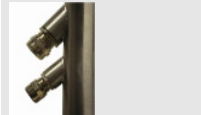
MB



HYGIENIC COUPLING MB

- Hygienic Stainless Steel Coupling
- Specially designed for the 15-FHP/ 18-FHP enclosure
- For connection of Standpipe (STF) or Elbow Stand (EBF)
- 300° rotation possible Stainless steel 304/1.4301
- Polished to 240 granulation
- Stainless steel 304 / 1.4301
- Optionally 316L/1.4404
- Polished to 240 granulation
- Inside diameter 60,3 mm

CABLE GLAND



Extra screwed cable gland

- **Extra screwed cable gland**
- Stainless steel 304 / 1.4301
- Optionally 316L/1.4404
- Polished to 240 granulation

PRAL



COATING of all stainless steel parts

- Coating of all stainless steel parts (FHP, STF/EBF, MB)
- RAL 9006 as standard
- Other colors / finishes on request

* If used together with for dust areas certified FHP enclosures

Technical data sheets are subject to modifications and amendments / No liability for misprints and errors.