Federal Railway Authority

EBA

Federal Railway Authority, P.O. Box 2861, D-53018 Bonn

+49-89-54856-551

Invatec GmbH & Co. KG

Fax:

Date

Phone:

Rötstraße 4

+49-89-54856-599

Notati disc +

e-mail:

D-74589 Satteldorf

EichhornJ@eba.bund.de

Processed by: Eichhorn

02/16/2004

Reference no. 21.51 lbzb (25/98)

Application for renewal of the type approval dated 04/26/99 - 21.52 lbzb (25/98) for the INNOTEC pillar-mounted system with integrated cable duct made of glass-fiber reinforced plastic material (GRP) of Size II.

Your letter dated 10/29/2003 - RMÜ/lf -

Dear Mister Münch,

In response to your aforementioned letter, I would like to inform you of the fact that the type approval for the above pillar-mounted cable routing system will not be renewed. Regulations regarding utilization are now the sole responsibility of the operator.

Grounds:

Facilities with lower-priority significance regarding building law and construction standards, i.e. if they are not affected by loads that result from railroad traffic and/or public safety and order are not jeopardized, will no longer be granted a registration with or approval by the Federal Railway Authority in individual cases. These construction products will be incorporated into lists "E" or "C" of the railroad-specific building rules list (Bauregelliste).

	DB Netz AG Deutsche Bahn Group
S	NTS 3. Br DA Phone: 962/5944 Fax: 962/2689

Clearance for series production for components "INNOTEC- / INVATEC pillar-mounted system" (serial number NTS 3 Br 03/00)

The components of INVATEC GmbH & Co. KG listed in the following are cleared for utilization with DB Netz AG:

Designation	Company code number	Material number
INVATEC pillar-mounted system	n/a	
with integrated cable duct		
made of fiber-reinforced plastic		
material (GRP) of Size I		
INNOTEC pillar-mounted	n/a	
system with integrated cable		
duct made of fiber-reinforced		
plastic material (GRP) of Size II		

Remarks (purpose of utilization, destination, replacement for, etc.)

Cf. notification of the Federal Railway Authority EBA (type approvals) dated 04/26/1999 - 21.52 lbzb (25/98) / Eichhorn and dated 10/18/1999 - 2152 lbzb (21/99).

All stipulations included in above notifications of the EBA shall also apply without any restrictions to the clearances at hand. Since the EBA notifications were granted conditionally and are revocable, this shall also apply to the clearances. Since type approvals of the EBA were for the time being limited until 03/31/2004 and 09/30/2004, this time limit shall also apply to the clearances. Any renewal of type approvals by the EBA shall automatically also apply to the clearances.

Clearance

ARCOR

Date: 10/18/2001

Status: Laboratory test successful

Field test successful

Type clearance

Designation:

Ground-mounted plastic cable duct Vario-Tec+, Sizes 1 and 2	
Propped cable duct made of GRP of Sizes I and II	INVATEC pillar-mounted system with integrated
with cover	cable duct, Sizes I and II

 \times

Purpose of utilization:

Accommodation and routing of TC outdoor cables in propped and ground-mounted design in rough terrain.

Remark:

The clearance of the ground-mounted plastic cable duct Vario-Tec+ of the type Sizes 1 and 2 is granted on the basis of the type approval of the Federal Railway Authority (EPA) with the registration number 1221/11101/21AZ2/0024/8 and 1221/1101/21AZ2/0045/8.

Clearance of the propped cable duct is granted on the basis of the type approvals of the Federal Railway Authority (E" A) with the registration number 2152lbzb (21/99) and 2152lbzb (25/98) for the pillar-mounted duct system made of fiber reinforced plastic material (GRP) of the type "INVATEC pillar-mounted system".

The original document is archived in department TNE, copies are sent to the Arcor departments by way of e-mail.

Copies to - Headquarters: TN, RG, FMP

- Regions: TR, FRM

Company: INVATEC GmbH & Co. KG

Dieselstraße 2 D-74589 Satteldorf

Eschborn, 10/18/2001 (illegible signature) K. Becker, TNE

(illegible signature)

G. Ranaudo, TNE

Die Bahn DB

Dept. D.KES.3
Phone: +49-69 265-48559
Intern: 955-48559

Clearance for series production for material used in telecommunications engineering applications

Clearance no.: SF D.KES3 04/01

The following product is cleared for utilization with DB AG:

Designation	Number	
Vario Top pillar-mounted cable ducts	INVATEC	
Sizes 1, 1a and 2		

TC facilities with safety functions acc. to EBA regulations: yes \square no \boxtimes

Remarks (purpose of utilization, destination, replacement for, etc.):

In case of difficult or rough terrain, pillar-mounted cable ducts serve for the accommodation and routing of signal, telecommunications and outdoor power cables of DB AG.

The clearance of pillar-mounted cable ducts is granted on the basis of the EBA type approvals (incl. collateral clauses) with the registration numbers 2152 lbzb (21/99), 2152 lbzb (25/98) and 2152 lbzb (015/01). Supplementing the aforementioned approvals, the cable duct system was further developed from a technical perspective. The states of development reached are outlined in the product documentation. The clearance is granted for an unlimited period of time and independent of the location.

Planning according to good professional practice is required on the basis of the BAU-STE, the product documentation of INVATEC, the EBA type approval, and the regulations of DB AG currently in force. When erecting the pillar-mounted cable ducts, it is mandatory that the mounting instructions be complied with. Intensive quality surveillance is required during the planning, erection and acceptance inspection stages on the basis of the aforementioned documents.

The product documentation of INVATEC (file name: DOKU_1_INVATEC_AUFG_KABELK.pdf) as per state 06/11/2002 and the drawings listed on page 2 are constituent elements of the clearance at hand.

Manufacturer: INVATEC, D-74589 Satteldorf Copies to: DB Netz, DB ProjektBau

Eschborn, 04/29/2004

(illegible signature) (illegible signature)

Schinkel Hofmann

(responsible for clearances)

S

Telematik

Die Bahn DB

Dept. D.KES.3

Phone: +49-69 265-48559

Intern: 955-48559

Clearance no.: SF D.KES3 04/01

List of cleared drawings:

No.	Drawing designation	Drawing no.	Year	Remarks
1	Supporting structure, overall view	02 07 10-1	2002	Exploded view Size 1
2	Supporting structure, overall view	02 07 10-2	2002	Exploded view Size 1a
3	Supporting structure, overall view	02 07 10-3	2002	Exploded view Size 2
4	Cable duct Size 1	02 07 10-4	1999	Complete component
5	Cable duct Size 1, lower part	02 07 10-7	1999	Cable duct
6	Cable duct Size 1, upper part	02 07 10-8	1999	Lid
7	Cable duct Size 1a	02 07 10-5	2002	Complete component
8	Cable duct Size 1a, lower part	02 07 10-9	2001	Cable duct
9	Cable duct Size 1a, upper part	02 07 10-10	2001	Lid
10	Cable duct Size 2	02 07 10-6	2002	Complete component
11	Cable duct Size 2, lower part	02 07 10-11	1998	Cable duct
12	Cable duct Size 2, upper part	02 07 10-12	1998	Lid
13	Supporting structure, upper plate	02 07 10-13	1999	
	Sizes 1 and 2			
14	Supporting structure, connecting angle	02 07 10-15	1999	
15	Supporting structure, prop IPE-HEB 100	02 07 10-16	1999	
16	Supporting structure, upper plate Size 1a	02 07 10-14	2001	
17	Supporting structure, angled hinge	02 07 10-20	2001	
18	Supporting structure, upper plate for angled hinge	02 07 10-22	1999	
	Closure Size 1, zinc-plated			
19	Closure Size 1a, zinc-plated	02 07 10-17	2000	Lid closure
20	Closure Size 2, zinc-plated	02 07 10-18	2000	Lid closure
21	Connecting branch Size 1	02 07 10-19	2000	Lid closure
22	Connecting branch Size 2	02 07 10-21	2001	
23		02 07 10-23	2001	

(illegible signature) 04/29/04