Infrared Vehicle Control System   IVCS

● Characteristics

- Input device:	IR remote control
- IR range:	approx. 5 m
- Output receiver:	max. 100 mA
- Supply receiver:	24 VDC
- Sensor connection:	3-pole Super Seal (standard)
- Charging:	via charging station (included)
- Operating temp.:	-20...+60 °C
- Material sensor:	PBT-GF30
receiver:	Aluminum
remote:	Polyamide GFR
charger:	Delrin black / sheet steel

● Technical Data

Input Device

IR-FB transmitter remote control:
Input:	2x analog rocker switch waveform
	4x short-travel keyswitch
Output:	infrared signal
Range:	approx. 5 m

Sensor Element

IR-FB infrared sensor:
Input:	infrared signal (detection)
Output:	electrical signal (for processing)
Lens:	black transparent, IR-permeable

Receiver Electronics

IR-FB receiver electronics:
Input:	IR sensor signal
Output current:	max. 100 mA

Charging Station

IR-FB transmitter charging station:
Input:	24 VDC, 250 mA
Output:	9 VDC (charging via contacts at casing)
Function:	The IR-FB transmitter remote control is inserted into the guide bars of the charging station and is then charged via two casing contacts.

● Applications

The Infrared Vehicle Control System is suitable for wireless remote control in all environments which would make wired remote control impractical. Its freely configurable key layout and its adjustable receiver electronics allow for a very flexible application.

Fotos: Pixelio.de, Poschle

● *Technical Data (Continued)*

Supply

IR-FB transmitter remote control:	9 VDC accumulator, charging via contacts at casing
IR-FB sensor:	12...24 VDC
IR-FB receiver electronics:	24 VDC
IR-FB transmitter charging station:	24 VDC, 250 mA

Environmental Conditions

Operating temperature:	-20...60 °C
Storage temperature:	-20...80 °C

Mechanics

Electrical Connection:
Sensor element:	0,5 m, 3-pole Super Seal (standard) / 2 m cable, open end (option)
Remote control:	2x charging contacts
Receiver electronics:	25-pole blade connector
Charging station:	2-pole 2,8 mm flat plug casing with Super Seal cover

Dimensions:
Sensor element:	70 x 35 x 29 mm (HxWxD)
Remote control:	168 x 75 x 60 mm (HxWxD)
Receiver electronics:	30 x 112 x 124 mm (HxWxD)
Charging station:	120,6 x 110,1 x 53,3 mm (HxWxD)
	(Height with cable gland: 124 mm)

Material Casing:
Sensor element:	PBT-GF30
Remote control:	glass-fibre reinforced polyamide
Receiver electronics:	Aluminum
Charging station:	Delrin black, sheet steel powder-coated as per RAL 9005

Weight:
Sensor element:	97,7 g
Remote control:	314,8 g
Receiver electronics:	281,8 g
Charging station:	559,7 g
System complete:	approx. 1.254 g

● *Electrical Connection*

Assignment charging station plug, 2-pole	Assignment Super Seal plug, 3-pole / cable, open end
2 1 - + - [plug] + Pin 1: + Pin 2: - Input: 24 VDC 250 mA	[plug: 1 2 3]

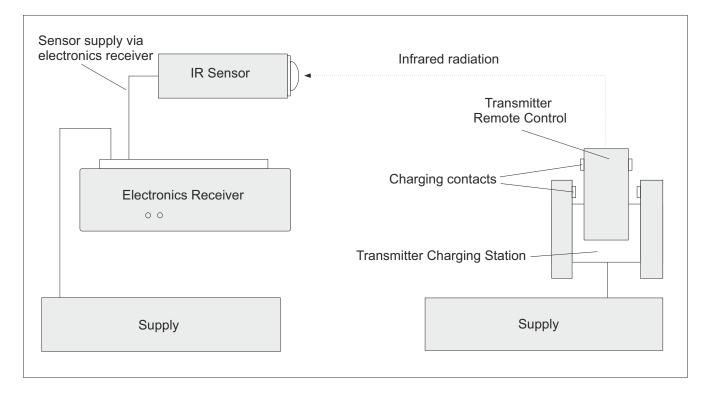| Pin	Wire Color	Function
1	bn	IR signal to receiver
2	bl	GND (supply by receiver)
3	blk	24 VDC (supply by receiver)

● Electrical Connection (Continued)

Pin Assignment Blade Connector, 25-pole

14	15	16	17	18	19	20	21	22	23	24	25	
1	2	3	4	5	6	7	8	9	10	11	12	13

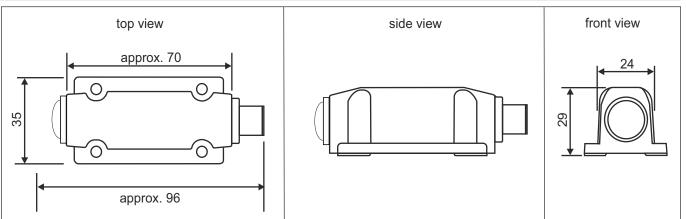| Pin	Function	Pin	Function
1	24 VDC power supply	14	N/A
2	N/A	15	GND power supply
3	GND IR sensor	16	IR sensor signal
4	24 VDC supply IR sensor	17	24 VDC enable
5	24 VDC spare*	18	N/A
6	5 VDC switch output spare*	19	N/A
7	4,5 VDC left rocker switch	20	4,5 VDC right rocker switch
8	N/A	21	Relay output CO (max. 2 A)
9	Relay output NO (max. 2 A)	22	Relay output NC (max. 2 A)
10	24 VDC switch output spare*	23	24 VDC switch output spare*
11	24 VDC switch output spare*	24	24 VDC switch output *Top Left*
12	24 VDC switch output *Bottom Middle*	25	24 VDC switch output *Top Right*
13	24 VDC switch output *Top Middle*		

* Spares have no function

● Complete System Overview

Sensor supply via electronics receiver

IR Sensor

Infrared radiation

Transmitter Remote Control

Charging contacts

Electronics Receiver

Transmitter Charging Station

Supply

Supply

● *Order Code*

V	I	X	X	X	X	X	X	-	X	X

Input device:	IR-FB transmitter remote control	0
Receiver:	IR-FB receiver electronics	0
Supply:	IR-FB transmitter charging station	0
Sensor element:	IR-FB infrared sensor with Super Seal, 3-pole	0
	IR-FB infrared sensor with open end cable, 3-pole	1
Key symbols:	Standard	0
	customized foil (please specify)	1
Special model:	No	0
	Yes (please specify)	1

● *Dimensions (in mm)*

IR Sensor Dimensions

top view — approx. 70, 35, approx. 96

side view

front view — 24, 29

Transmitter Remote Control Dimensions

top view — 75, approx. 86

side view — approx. 60, 168