

## SafetyBus p Optical Data Transmission Device

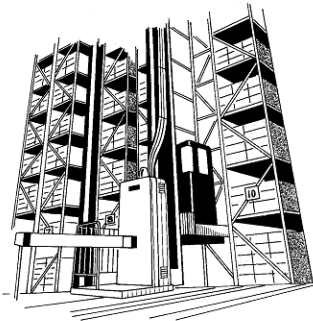
### BWF - 1 S A / B



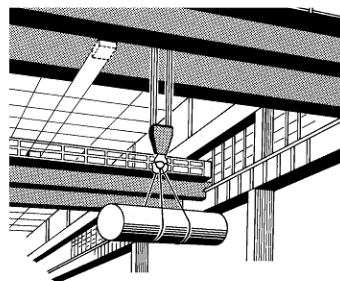
### Introduction

Hokuyo is a manufacturer of optical data transmission devices which are used in the FA field, such as automatic transportation systems etc. There are 2 kinds of data transmission device, parallel and serial. They are typically used for interlocking between AGV's and "off board" equipment and for sending instructions in automatic warehouse on equipment such as stacker cranes etc.

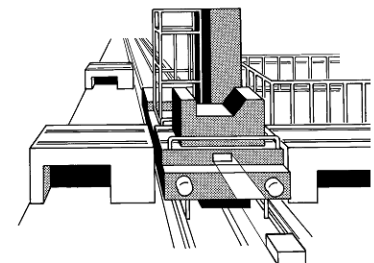
### Application



**Control of stacker crane for automated storage systems**  
(Instruction of address, main power ON/OFF, traveling and upturn/downturn etc.)



**Control of overhead traveling crane**  
(Instruction of advance, reverse, sideways traveling, hoisting up, winding down etc.)



**Control of track type AGV(RGV)**  
(Instruction of address, main power ON/OFF, traveling etc.)

### Features

The BWF devices are an opto electronic data transmission system utilizing infrared light beams. They are designed to transmit and receive serial data and are immune to disturbances created by light or electrical noise because of the use of a sophisticated FSK modulation system. These devices are suitable for providing high-speed moving communication and for using in places where it is difficult, or expensive to install cables.

## Specifications

Model No.		BWF-1SA	BWF-1SB
Power source	24VDC(+/- 15%)		
Current consumption	Max. 130mA(Input voltage 24VDC)		
Transmission delay	500nsec		
Optical transmission part	Transmission distance	0 to 70m	
	Directional angle	50m or less : Full angle 2 degrees, 50m or more : Full angle 1 degree	
	Transmission system	Full-duplex two-way transmission system	
	Modulation system	FSK	
	Modulated frequency	35M +/- 3MHz	45M +/- 3MHz
	Transmission speed	0 to 500kbps	
SafetyBus	Connection type	Multi-drop system	
Network	Communication speed	Max. 250kbps	

## System construction

