MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

BIHL+WIEDEMANN

BWU1777

DOUBLE-MASTER AS-I/PROFIBUS GATEWAY

Used with the applicable AS-i 3.0 PROFIBUS gateways configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Bihl+Wiedemann AS-i 3.0 PROFIBUS gateways manufacturer documentation

Bihl + Wiedemann

Automatisierungstechnik

AS-i 3.0 PROFIBUS Gateways

Operating Manual



PROFIBUS

DP V0 and DP V1

ASi INTERFACE

AS-i 3.0 Specification

Edition: 2008-1-10

Declaration of Conformity

according to 89/336/EEC and 73/23/EEC

Bihl+Wiedemann GmbH, Mannheim, Germany, hereby declares under its sole responsibility that the products mentioned below are in conformity with the listed harmonized standards or normative documents and (where necessary) approved by a competent body.

Designation:	**AS-i 3.0 PROFIBUS Gateway in Stainless Steel**
Article-no.:	BWU1567, BWU1568, BWU1569, BWU1746, BWU1773, BWU1891, BWU1774, BWU1599, BWU1600, BWU1601, BWU1653, BWU1654, BWU1655, BWU1775, BWU1776, BWU1777

Applied harmonized standards:	EN 50295 EN 61000-6-2 EN 61000-6-4

Applied national standards or normative documents:	Prüfungsordnung für AS-i Master

Manufacturer:

Bihl+Wiedemann GmbH

Date: 01.08.05 Bernhard Wiedemann

Issue date - 10.1.2008

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3 General Information

3.1 Product information

This operating instruction holds for the following devices of the Bihl+Wiedemann GmbH:

AS-i PROFIBUS Gateway in Stainless Steel, **Single Master**	art. -no. BWU1567 art. -no. BWU1775
AS-i PROFIBUS DP Gateway in Stainless Steel, **Single Master** (with Control)	art. -no. BWU1599
AS-i PROFIBUS DP Gateway in Stainless Steel, **Single Master** (Class1Div2)	art. -no. BWU1653
AS-i PROFIBUS DP Gateway in Stainless Steel, **Single Master** (without RS232 diagnostic interface, without duplicate address‘ recognition)	art. -no. BWU1773
AS-i PROFIBUS DP Gateway in Stainless Steel, **Single Master** (with decoupling network)	art. -no. BWU1891
AS-i PROFIBUS Gateway in Stainless Steel, **Double Master**	art. -no. BWU1568 art. -no. BWU1776
AS-i PROFIBUS DP Gateway in Stainless Steel, **Double Master** (with Control)	art. -no. BWU1600
AS-i PROFIBUS DP Gateway in Stainless Steel, **Double Master** (Class1Div2)	art. -no. BWU1654
AS-i PROFIBUS DP Gateway in Stainless Steel, **Double Master** (without RS232 diagnostic interface, without duplicate address‘ recognition)	art. -no. BWU1774
AS-i/PROFIBUS Gateway in Stainless Steel, **Double Master** version "1 power supply, 1 gateway for 2 AS-i circuits"	art. -no. BWU1569 art. -no. BWU1777
AS-i PROFIBUS DP Gateway in Stainless Steel, **Double Master** (with control) version "1 power supply, 1 gateway for 2 AS-i circuits"	art. -no. BWU1601
AS-i PROFIBUS DP Gateway in Stainless Steel, **Double Master** (Class1Div2) version "1 power supply, 1 gateway for 2 AS-i circuits"	art. -no. BWU1655
AS-i PROFIBUS Gateway in Stainless Steel **Basic Master**	art. -no. BWU1746

Issue date - 10.1.2008

Subject to reasonable modifications due to technical advances
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The AS-i PROFIBUS gateways are designated to connect AS-i systems with a superior PROFIBUS. They act as a master for the AS-i and as a slave for the PROFIBUS.

All AS-i functions are provided as well cyclically as acyclically via PROFIBUS DP V1.

In the cyclic data transfer optionally up to 32 bytes I/O data are being transferred for the binary data of one AS-i network. Additionally, analog signals and all further commands of the new AS-i specification can be transferred in the management channel via PROFIBUS.

The serial PROFIBUS Master (art. no. 1258) and the AS-i Control Tools can be used for monitoring the AS-i data online via the PROFIBUS DP V1.

3.2 AS-i Specification 3.0

The AS-i 3.0 Gateways already fulfil the AS-i Specification 3.0.

The previous specifications (2.1 and 2.0) are supported as well.

Advanced Diagnostics

Diagnostics, which go far beyond the standard diagnostics facilitate the simple detection of the occasionally occurring configuration errors and further irritations towards the AS-i communication. So in case of an error the down time of machines can be minimized or you can initiate preventive maintenance.

Commissioning and monitoring

The AS-i Gateway can be commissioned with the help of the software "AS-i Control Tools" in combination with the PROFIBUS Master Simulator. The device master file and type files are included in the delivery scope.

Commissioning, debugging and setting up of the AS-i parameters can also be accomplished with the use of push-buttons on the frontside of the gateway, the display and the LEDs.

3.3 Accessories

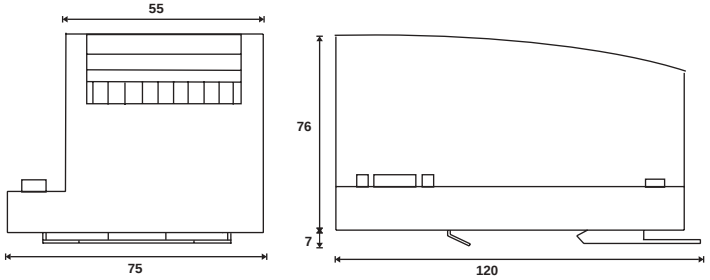
- Software "AS-i Control Tools" with serial cable for connection of the AS-i Master in Stainless Steel (art. no. BW1602)
- Serial PROFIBUS master (Article no. BW1258)
- PROFIBUS DP master simulator (Article no. BW1131)

Note	Please refer to <*chap. 9.2 "Accessories (optional)", page 86*> for further information.

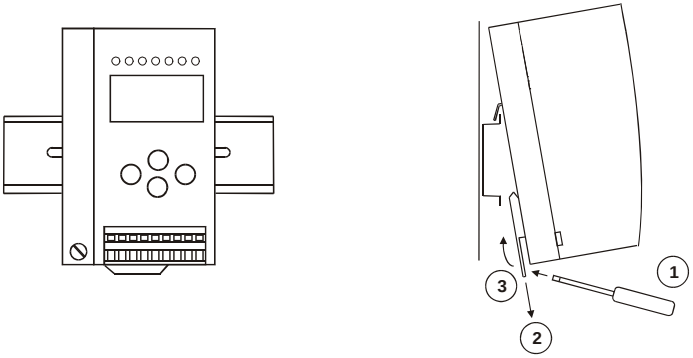
Issue date - 10.1.2008

4 Mounting Instructions

4.1 Size



4.2 Mounting



For the mounting of the gateways in stainless steel are mounting plates with 35 mm top-hat rail intended.

Note

Please refer to *chapter "Installation instructions" for detailed information.*

4.3 Electrical connection

Note

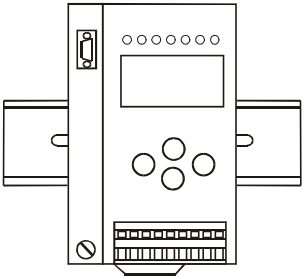
Electrical connection is illustrated in chapter *"Electrical connection".*

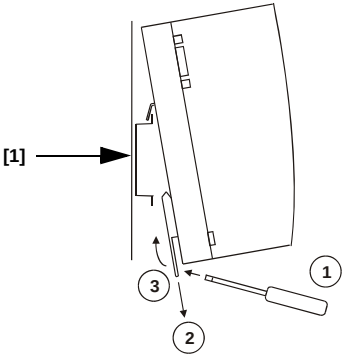
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13.4.9 Montage

auf Montageplatte mit 35-mm-Hutschiene ①
on mounting plate with 35 mm top-hat rail ①
sur plaque de montage avec profilé-support 35 mm ①
su piastra di montaggio con guida DIN 35 mm ①
sobre placa de montaje con guía simétrica de 35 mm ①





13.4.10 Accessories

Netzteil 4 A (Art.-Nr. BW1592)/8 A (Art.-Nr. BW1593)
Power supply 4 A (art. no. BW1592)/8 A (art. no. BW1593)
Alimentation 4 A (n° art. BW1592)/8 A (n° art. BW1593)
Alimentazione 4 A (cod. art. BW1592)/8 A (cod. art. BW1593)
Fuente de poder 4 A (no. del art. BW1592)/8 A (no. del art. BW1593)

PC-Software „AS-i Control Tools“ mit seriellem Kabel zum Anschluss des AS-i Master in Edelstahl

Software "AS-i Control Tools" with serial cable for connection of the AS-i Master in stainless steel

Logiciel "AS-i Control Tools" avec câble série pour la connexion du maître AS-i en acier inox

Software PC "AS-i Control Tools" con cavo seriale per il collegamento del master AS-i d’acciaio inox

Software de PC "AS-i Control Tools" (no. de art. BW1602) con cable serial para la conexión del AS-i Master en acero inoxidable (no. de art. BW1602), master PROFIBUS serial (no. de art. BW1258)

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13.5 Single Master
(BWU1991 ... see chapter 13.1)

AS-i 3.0 PROFIBUS-Gateway in Edelstahl
AS-i 3.0 PROFIBUS Gateway in Stainless Steel
Passerelle AS-i 3.0 PROFIBUS DP en boîtier inox
Gateway AS-i 3.0 PROFIBUS d'acciaio inox
Pasarela AS-i 3.0 PROFIBUS en acero inoxidable



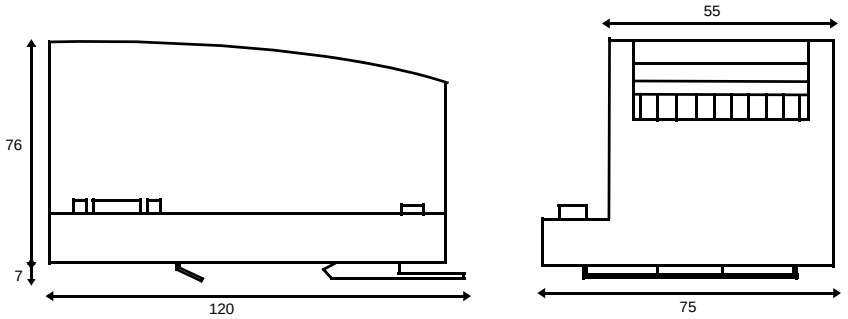


Dokumentation AS-i/PROFIBUS-Gateways (deutsch)
Documentation AS-i/PROFIBUS-Gateways (english)

Attention

Die Geräte dürfen nur von Fachpersonal aufgebaut, angeschlossen und in Betrieb genommen werden! **/** Only qualified staff is allowed to mount, connect and set up the modules! **/** Les modules ne doivent être montés, raccordés et mis en service que par du personnel qualifié! **/** Gli apparecchi possono essere montati, collegati e messi in funzione soltanto da personale specializzato! **/** Los aparatos sólo pueden ser montados, conectados y puestos en servicio por personal técnico especializado!

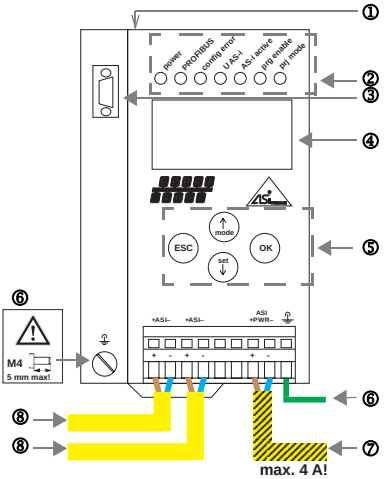
13.5.1 Dimensions



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13.5.2 Front view and connections



⑦ Netzteil/ Power supply/ Alimentation/ Alimentatore/ Alimentación

⑧ AS-i-Kreis /AS-i circuit /Bus AS-i / Circuito AS-i / Circuito AS-i

Hinweis/Hint/Remarque/Nota/Nota

Am Kabel für das Netzteil dürfen keine Slaves oder Repeater angeschlossen werden.
Am Kabel für den AS-i-Anschluss dürfen keine AS-i-Netzteile oder weitere Master angeschlossen werden.

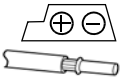
At the cable for power supply no slaves or repeaters may be attached.
At the cable for AS-i circuit no power supplies or further masters may be attached.

Au câble pour l'alimentation aucun esclave ou répéteur ne peut être raccordé.
Au câble pour le circuit AS-i aucune alimentation ou autre maître ne peut être raccordé.

Al cavo per l'alimentazione nessun slave o ripetitore può essere fissato.
Al cavo per il circuito AS-i nessun alimentatore o altro master può essere fissato.

En el cable de la alimentación AS-i no se deben conectar esclavos o repetidores.
En el cable del circuito AS-i no se debe conectar ninguna fuente de poder AS-i u otro master.

Ambient operating temperature: 0° ... +55°C
Tightening torque: 7 pound inches



Temperature rating for cable: 60/75°C
Use copper conductors only

1 x 0.5 - 1.5 mm² (16AWG/kcmil: min. 24/max.12)

① RS 232 Anschluss
② LED-Statusanzeige
③ PROFIBUS-Anschluss
④ LCD-Anzeige
⑤ Tasten für Handbedienung
⑥ Erde

① RS 232 connection
② LED status display
③ PROFIBUS connection
④ LCD display
⑤ Buttons for hand operation
⑥ Ground

① Raccordement RS 232
② Affichage d'état DEL
③ Raccordement PROFIBUS
④ Affichage LCD
⑤ Boutons pour commande manuelle
⑥ Terre

① Collegamento RS 232
② Visualizzazione di stato LED
③ Collegamento PROFIBUS
④ Visualizzazione LCD
⑤ Pulsanti per le impostazioni manuali
⑥ Terra

① Conexión RS 232
② LED visualización
③ Conexión PROFIBUS
④ Display LCD
⑤ Teclas para accionamiento manual
⑥ Tierra

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