# AS-i/AS-i Coupler in IP20

**Bihl + Wiedemann**

**Connection of 2 AS-i Networks
via 2 internal 4I/4O Slaves**

**Easy data exchange
between 2 AS-i Networks via
the internal 2 AS-i Slaves**

c UL us LISTED IND.CONT.EQ. 1HD8   CE

(figure similar)

## Article no. BW1187

The AS-i/AS-i Coupler provides the easiest solution to exchange data between two PLCs via AS-i.

In big applications with more than one AS-i network there is often a need to exchange data between two AS-i networks, e. g. to report the process status. This problem was solved in the past with the help of 2 normal AS-i 4I/4O Modules, with the inputs of one slave connected to the outputs of the other slave. With the use of the AS-i/AS-i Coupler to solve this problem the installation costs as well as the components costs can be reduced.

The AS-i/AS-i Coupler consists of two 4I/4O Slaves in one housing. The outputs of one slave are connected to respective inputs of the other slave and vice versa (AS-i output data bit 0 of the first slave with AS-i input data bit 0 of the second slave and vice versa, etc.).
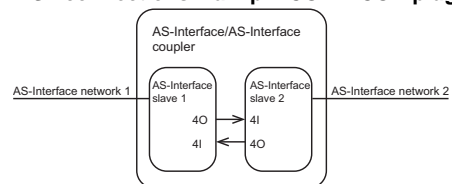
There is a galvanic isolation between both AS-i networks.

Each AS-i slave has got 6 LEDs, 4 LEDs for the 4 outputs, one power LED and 1 LED for AS-i faults. Furthermore each slave has got an address socket.

As long as one of both slaves does not exchange data the other slave reads on each input a 0 as default.

| Article no. | BW1187 |
|---|---|
| Interfaces | AS-i circuit 1 and 2 |
| IO-Code (slave 1 and 2) | $7_{hex}$ |
| ID-Code (slave 1 and 2) | $F_{hex}$ |
| ID1-Code (slave 1 and 2) | $F_{hex}$ |
| ID2-Code (slave 1 and 2) | $E_{hex}$ |
| LEDs for slave 1 and 2 | |
| LED power (green) | AS-i voltage ON |
| 1x LED FAULT (red) | AS-i communication error, peripheral fault |
| 4x LEDs (yellow) | output 1 up to output 4 |
| 2x address socket (ADDR) | for slave 1 and slave 2 |
| Operating current | < 80 mA per slave |
| Operating voltage | 30 V (18 … 31.6 V) |
| Voltage of insulation | $\geq$ 500 V |
| Applied standards | EN 61000-6-1, EN 61000-6-3 |
| Ambient operating temperature | 0 °C … +55 °C |
| Storage temperature | -25 °C … +85 °C |
| Pollution degree | 2 |
| Housing | plastic, housing for DIN-rail mounting |
| Dimensions (W, H, D) | 22,5 mm, 99 mm, 92 mm |
| Protection category (DIN 60529) | IP20 |
| Tolerable loading referring to humidity | according to EN 61131-2 |

**AS-i connections via 4-pin COMBICON plug:**

AS-Interface/AS-Interface coupler

AS-Interface network 1 — AS-Interface slave 1 (4O / 4I) → AS-Interface slave 2 (4I / 4O) — AS-Interface network 2

| 1 | AS-i2- |
|---|---|
| 2 | AS-i2+ |
| 3 | AS-i1- |
| 4 | AS-i1+ |
| 5 | n.c. |
| 6 | n.c. |
| 7 | n.c. |
| 8 | n.c. |
| 9 | AS-i2+ |
| 10 | AS-i2- |
| 11 | AS-i1+ |
| 12 | AS-i1- |
| 13 | AS-i2+ |
| 14 | AS-i2- |
| 15 | n.c. |
| 16 | n.c. |