

AS-Interface PT

AS-Interface PT	Order ref.	E82ZAFFC010
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The function module enables the 8200 vector to be controlled with digital control signals via the “AS-Interface” bus system. Plug-in spring-clamp terminals enable cable cross-sections of up to 1.5 mm² to be connected quickly and easily without the need for ferrules. Due to the plugged-on spring-clamp terminal strip, the function module juts out approx. 15 mm of the front panel of the frequency inverter. For the purposes of simple diagnostics, dual screw terminals can be used to interrupt communication with the frequency inverter without affecting the bus operation of other devices. The module is also available in a basic version without plug-in terminal. The “AS-Interface” (AS-i) bus system has established itself for use at the lowest field level, particularly for digital signal transfer.

It is designed for applications that do not necessarily require powerful fieldbus systems, but do nonetheless need to exploit the advantages of serial communication.

The advantages of this system are:

- Easy to use and to set up
- Less wiring required
- Easy to integrate into existing systems
- Cost reductions

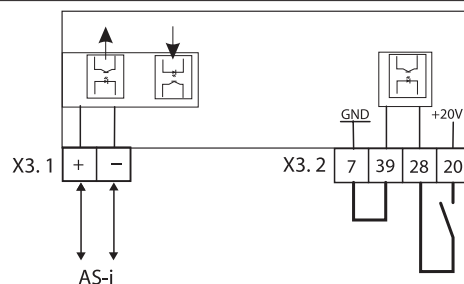
3 Terminal assignment

X3.1/	Wire colour (IEC757)	Explanation
+	BN	Please refer to the information included in the description of the AS-i system about the electrical connection of peripheral devices
-	BU	

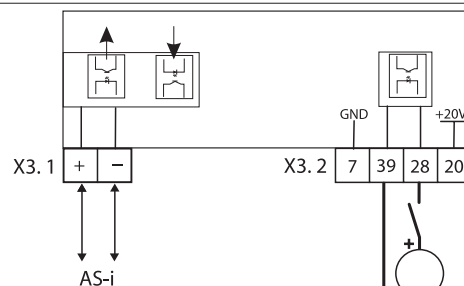
X3.2/		Explanation
7	GND1	Reference potential 1
20		+ 20 V internal for controller inhibit, reference: X3/7
28		Controller inhibit <ul style="list-style-type: none"> • Start = HIGH (+12 V...+ 30 V) • Stop = LOW (0...+3 V)
39	GND2	Reference potential for X3/28



Supply: Controller inhibit terminal (X3/28) via internal voltage supply








Supply: Controller inhibit terminal (X3/28) via external +24 V supply



— Minimum wiring required for operation

AS-Interface PT

General data and application conditions

Protocol/communication medium	AS-i
Network topology	Tree
Bus device	Slave
Max. number of nodes	31
Baud rate [kBit/s]	167
Scan time [ms]	5 ms (with 31 nodes)
Max. bus length [m]	100
Electrical connection (X3 terminal strip)	Screw terminals
Connection options (X3 terminal strip)	 Rigid: 1.5 mm ² (AWG 16)
	Flexible: <ul style="list-style-type: none">  1.5 mm² (AWG 16) without ferrules  1.5 mm² (AWG 16) with ferrules without plastic sleeve  0.5 mm² (AWG 20) with ferrules with plastic sleeve ¹⁾  1.5 mm² (AWG 16) with ferrules with plastic sleeve ²⁾
DC supply to the function module	via the bus
Isolation voltage to reference earth/PE	50 V AC
Ambient temperature	Operation: -20 ... +60°C Transport: -25 ... +70°C Storage: -25 ... +60°C
Climatic conditions	Class 3K3 to EN 50178 (without condensation, average relative humidity 85%)

¹⁾ Spring-clamp connection

²⁾ Dual screw connection

Note:

Two LEDs are located on the function module to indicate the communication status.

The following are available:

- 4 data bits to the 8200 vector (actuation)
The bits can be freely assigned in the 8200 vector.

Example:

- Bit 1 is assigned the function "Fixed setpoint value 1"
- Bit 2 is assigned the function "Fixed setpoint value 2"
- Bit 3 is assigned the function "DC brake"
- Bit 4 is assigned the function "Reversal of direction of rotation"

- 1 data bit from the 8200 vector (feedback)
This bit can be freely assigned in the 8200 vector, e.g. with a trip error message.
- 1 AS-i monitoring bit from the AS-i module