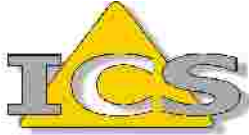


Device Profile according to IEC 61915-1

| Manufacturer's Device Profile Header | | | |
|---|--|--|---|
| Manufacturer's device profile ID: 0004 | Manufacturer's device profile description: | Manufacturer's device profile version: Version 04 | Manufacturer's device profile release date: 2004-10-27 |
| Manufacturer ID: 0001 | Model compatibility: | Software compatibility: | Hardware compatibility: |

| Parameters | | | | | | | | | |
|---|-----------|-------|--------|------------|------------------|--------|-----------|--------------|--|
| Parameter name | Data type | Units | Offset | Multiplier | Range | Access | Re-quired | Imple-mented | Parameter Description |
| Reset Timer/Counter | BOOL | na | na | na | na | W | M | Yes | 0=no reset 1=reset |
| Input D2 | BOOL | na | na | na | na | R | M | Yes | defined by configuration (see below) |
| Input D3 | BOOL | na | na | na | na | R | M | Yes | defined by configuration (see below) |
| Unit count | INT | Units | 0 | 1 | -32768 +32767 | R | O | Yes | output of counter (counter/encoder mode) |
| Speed 1 | UINT | Imp/s | 0 | 1 | 0 ... 60000 | R | O | Yes | output of speed measurement |
| Speed 2 | UINT | Imp/s | 0 | 0,01 | 0 ... 600 | R | O | Yes | output of speed measurement |
| Time 1 | UINT | ms | 0 | 0,01 | 0 ... 600 | R | O | Yes | output of time measurement |
| Time 2 | UINT | ms | 0 | 1 | 0 ... 60000 | R | O | Yes | output of time measurement |
| Time 3 | UINT | s | 0 | 0,1 | 0 ... 6000 | R | O | Yes | output of time measurement |
| Diagnosis | BYTE | na | na | na | na | R | O | Yes | see AS-Interface profile S-7.A.5 |
| Param.: Mode | BYTE | na | na | na | na | RW | O | Yes | =1: Counter mode =2: Encoder mode =8: Speed mode 1 ¹⁾ =9: Speed mode 2 ¹⁾ =16: Timing mode 1 ¹⁾ =17: Timing mode 2 ¹⁾ =18: Timing mode 3 ¹⁾ |
| Param.: Damping Constant | BYTE | na | na | na | na | RW | O | Yes | see list of damping constants |
| Param.: Limit 1 | 2) | 2) | 2) | 2) | 2) | RW | O | Yes | set Out and Input DI0, if exceeded |
| Param.: Limit 2 | 2) | 2) | 2) | 2) | 2) | RW | O | Yes | set Input DI1, if exceeded |
| ¹⁾ not implemented in this version ²⁾ depending on Parameter: Mode | | | | | | | | | |



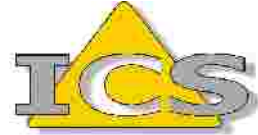
Technical Description

AS-Interface Counter Module (Annex) Article No. CM00X

| | | | | | | | |
|--|---|------------|----|-------------|----|------------------|---------------------|
| Parameter assembly name: Binary Data | | Access: RW | | Required: M | | Implemented: Yes | |
| Byte | Bits: (0-7 for byte constructions; 0-15 for word constructions) | | | | | | |
| | 7 | 6 | 5 | 4 | 3 | 2 | 1 0 |
| 0 | r | r | r | r | r | Reset | Input DI1 Input DI0 |
| Parameter assembly name: Acyclic Read Service Request (Get ID) | | Access: R | | Required: O | | Implemented: Yes | |
| Byte | Bits: (0-7 for byte constructions; 0-15 for word constructions) | | | | | | |
| | 7 | 6 | 5 | 4 | 3 | 2 | 1 0 |
| 0 | 16 | | | | | | |
| 1 | 0 | | | | | | |
| 2 | 6 | | | | | | |
| Parameter assembly name: Acyclic Read Service Request (Get Diagnosis) | | Access: R | | Required: O | | Implemented: Yes | |
| Byte | Bits: (0-7 for byte constructions; 0-15 for word constructions) | | | | | | |
| | 7 | 6 | 5 | 4 | 3 | 2 | 1 0 |
| 0 | 16 | | | | | | |
| 1 | 1 | | | | | | |
| 2 | 1 | | | | | | |
| Parameter assembly name: Acyclic Read Service Request (Get Parameter) | | Access: R | | Required: O | | Implemented: Yes | |
| Byte | Bits: (0-7 for byte constructions; 0-15 for word constructions) | | | | | | |
| | 7 | 6 | 5 | 4 | 3 | 2 | 1 0 |
| 0 | 16 | | | | | | |
| 1 | 2 | | | | | | |
| 2 | 6 | | | | | | |
| Parameter assembly name: Acyclic Read Service Response (ID-String) | | Access: R | | Required: O | | Implemented: Yes | |
| Byte | Bits: (0-7 for byte constructions; 0-15 for word constructions) | | | | | | |
| | 15 | 14 | 13 | 12 | 11 | 10 | 9 8 |
| | 7 | 6 | 5 | 4 | 3 | 2 | 1 0 |
| 0 | 80 | | | | | | |
| 1 | | | | | | | |
| 2 | 0001 (Vendor ID) | | | | | | |
| 3 | | | | | | | |
| 4 | 0004 (Product ID) | | | | | | |
| 5 | 0 | 0 | 0 | 0 | 1 | 0 | 1 0 |
| 6 | 0 | | | 4 | | | |
| Parameter assembly name: Acyclic Read Service Response (Diagnosis) | | Access: R | | Required: O | | Implemented: Yes | |
| Byte | Bits: (0-7 for byte constructions; 0-15 for word constructions) | | | | | | |
| | 7 | 6 | 5 | 4 | 3 | 2 | 1 0 |
| 0 | 80 | | | | | | |
| 1 | diagnosis | | | | | | |
| Parameter assembly name: Acyclic Read Service Response (Parameter) | | Access: RW | | Required: O | | Implemented: Yes | |
| Byte | Bits: (0-7 for byte constructions; 0-15 for word constructions) | | | | | | |
| | 15 | 14 | 13 | 12 | 11 | 10 | 9 8 |
| | 7 | 6 | 5 | 4 | 3 | 2 | 1 0 |
| 0 | 80 | | | | | | |
| 1 | Parameter: Mode | | | | | | |
| 2 | Parameter: Damping Constant | | | | | | |
| 3 | Parameter: Limit 1 | | | | | | |
| 4 | | | | | | | |
| 5 | Parameter: Limit 2 | | | | | | |
| 6 | | | | | | | |

Technical Description

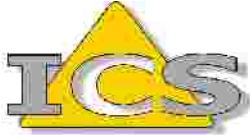
AS-Interface Counter Module (Annex) Article No. CM00X



| | | | | | | | | |
|--|---|------------|----|-------------|----|------------------|---|---|
| Parameter assembly name: Acyclic Write Service Request (Parameter) | | Access: RW | | Required: 0 | | Implemented: Yes | | |
| Byte | Bits: (0-7 for byte constructions; 0-15 for word constructions) | | | | | | | |
| | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 |
| | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
| 0 | 17 | | | | | | | |
| 1 | 2 | | | | | | | |
| 2 | 6 | | | | | | | |
| 3 | Parameter: Mode | | | | | | | |
| 4 | Parameter: Damping Constant | | | | | | | |
| 5 | Parameter: Limit 1 | | | | | | | |
| 6 | | | | | | | | |
| 7 | Parameter: Limit 2 | | | | | | | |
| 8 | | | | | | | | |
| Parameter assembly name: Serial Communication Mode : Parameter (2) | | Access: RW | | Required: 0 | | Implemented: Yes | | |
| Byte | Bits: (0-7 for byte constructions; 0-15 for word constructions) | | | | | | | |
| | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 |
| | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
| 0 | 0 | | | | | | | |
| 1 | Output of counter / speed / time | | | | | | | |
| 2 | | | | | | | | |
| Parameter assembly name: Acyclic Read Service Response (Error Reading) | | Access: R | | Required: 0 | | Implemented: Yes | | |
| Byte | Bits: (0-7 for byte constructions; 0-15 for word constructions) | | | | | | | |
| | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
| 0 | 144 | | | | | | | |
| 1 | diagnosis | | | | | | | |
| Parameter assembly name: Acyclic Write Service Response (Error Writing) | | Access: R | | Required: 0 | | Implemented: Yes | | |
| Byte | Bits: (0-7 for byte constructions; 0-15 for word constructions) | | | | | | | |
| | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
| 0 | 145 | | | | | | | |
| 1 | diagnosis | | | | | | | |

Diagnosis byte (in connection with function block SerComCM):

| Bit No. | | |
|---------|--------------------------|---|
| 7 | Slave not in serial mode | Diagnosis information from function block |
| 6 | Wrong ID | Diagnosis information from function block |
| 5 | --- | Diagnosis information from function block |
| 4 | Slave busy | Diagnosis information from function block |
| 3 | --- | Diagnosis information from Slave |
| 2 | --- | Diagnosis information from Slave |
| 1 | Request not implemented | Diagnosis information from Slave |
| 0 | Illegal Index | Diagnosis information from Slave |

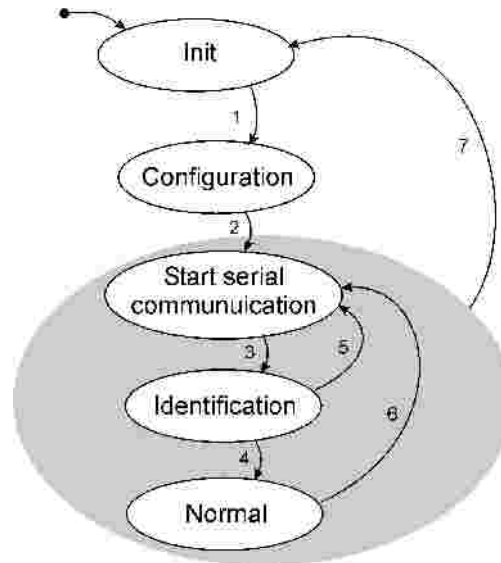


Technical Description

AS-Interface Counter Module (Annex) Article No. CM00X

State Model (Root Device Profile)

Statechart Diagram



State Transition Table

| State Name | | State Description | |
|----------------|----------------|--|---|
| initialisation | | initial state of the device upon power-up. The device switches all outputs into off-state. | |
| Configuration | | The device is available for all AS-I commands except "Data_Exchange". The device is waiting for a command "Write_Parameter" | |
| automatic | | The device is available for automatic operation. Data Bits are valid. | |
| Test | | The device is not performing its normal sensing operations. The presence, warning and availability information should not be used by the normal process. | |
| Transition | Initial State | Final State | Transition Condition |
| 1 | initialisation | configuration | initialisation performed without error |
| 2 | configuration | automatic | "Write_Parameter" received and processed without error |
| 3 | automatic | test | Test mode activated via "Data_Exchange" command |
| 4 | test | automatic | Test mode deactivated via "Data_Exchange" command |
| 5 | automatic | initialisation | timeout of data communication (>40ms without "Data_Exchange") |

List of damping constants

(not implemented)