

Codeurs absolu réseau

Axe sortant avec bride Euro B10

Codeur multitour 13 bits ST / 12 bits ou 16 Bit MT

CANopen / SSI / Profibus / DeviceNet

AMG 11, AMG 11 + FSL



AMG 11

Caractéristiques électriques

| | |
|---------------------------|--|
| Alimentation | 9...30 VDC |
| Courant de service à vide | ≤100 mA (SSI) ≤250 mA (Bus) |
| Temps d'initialisation | ≤200 ms mise sous tension |
| Interface de sortie | SSI, Profibus-DPV0, CANopen, DeviceNet |
| Fonction | Multitour |
| Fréquence d'horloge | 10...1000 kBaud (CANopen) 9,6...12000 kBaud (Profibus) 125...500 kBaud (DeviceNet) |
| Profil | Profibus-DPV0 CANopen CiA DSP 406 V 3.0 Device Profil codeur V 1.0 |
| Adresse de l'esclave | Commutateurs dans le Boîtier Bus |
| Points par tour | 8192 / 13 bits |
| Nombre de tours | 4096 / 12 bits, 65536 / 16 bits |
| Sorties additionnelles | Incrémental TTL (RS422) Incrémental HTL |
| Principe de détection | Optique |
| Code | Gray ou binaire (Version SSI) |
| Sens d'évolution du code | Programmable, CW par défaut |
| Entrées | Horloge SSI (Version SSI) |
| Choc | DIN EN 61000-6-2 |
| Emission | DIN EN 61000-6-4 |
| Paramètre programmable | Fonction de l'interface sélectionné |
| Fonction Diagnostic | Défauts de paramétrage |
| LED Diagnostic | Intégrée dans le Boîtier Bus |

AMG 11

| | |
|------------|--------------------------|
| Conformité | Certification UL/E256710 |
|------------|--------------------------|

AMG 11 + FSL

| | |
|------------------|------------------|
| Seuil de vitesse | 850...2800 t/min |
|------------------|------------------|

Points forts

- Codeur multitour / SSI / Profibus / CANopen / DeviceNet
- Détection optique
- Résolution monotour 13 bits, multitour 12 à 16 bits
- Bride EURO B10 / axe ø11 mm
- Détection multitours avec technologie microGen, sans réducteur ni batterie
- Disponible avec sorties absolues redondantes
- Protection spéciale contre la corrosion
- En combinaison avec un relais de survitesse FSL

Option

- Avec sorties incrémentales additionnelles (TTL / HTL)

Caractéristiques mécaniques

| | |
|--------------------------------------|---|
| Boîtier | ø122 mm |
| Axe | ø11 mm |
| Bride | Bride Euro B10 |
| Classe de protection DIN EN 60529 | IP 67 |
| Charge | ≤250 N axial, ≤350 N radial |
| Matière | Boîtier : aluminium anodisé Axe : inox |
| Température d'utilisation | -20...+85 °C |
| Raccordement | Boîtier Bus Boîte à bornes (SSI) |

AMG 11

| | |
|---------------------|---|
| Vitesse de rotation | ≤3500 t/min (Mécanique) |
| Moment d'inertie | 12 Ncm |
| Moment d'inertie | 780 gcm ² |
| Résistance | DIN EN 60068-2-6 Vibration 10 g, 10-2000 Hz DIN EN 60068-2-27 Choc 100 g, 6 ms |
| Protection | II3G Ex nA T4 X (gas) II3D Ex tD IP67 A22 T135°C X (poussière) |
| Poids | 3 kg (Fonction du modèle) |

AMG 11 + FSL

| | |
|---------------------|--|
| Vitesse de rotation | ≤1,25 x Seuil de vitesse |
| Moment d'inertie | 15 Ncm |
| Moment d'inertie | 810 gcm ² |
| Résistance | DIN EN 60068-2-6 Vibration 5 g, 10-2000 Hz DIN EN 60068-2-27 Choc 50 g, 11 ms |
| Poids | 3,5 kg (Fonction du modèle) |

Codeurs absolu réseau

Axe sortant avec bride Euro B10

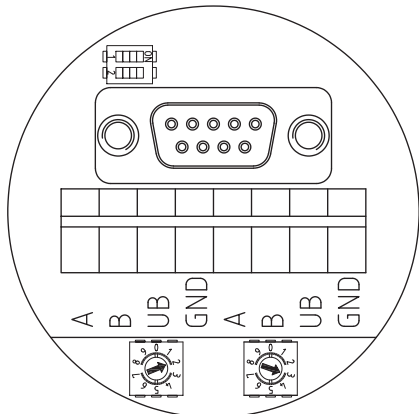
Codeur multitour 13 bits ST / 12 bits ou 16 Bit MT

CANopen / SSI / Profibus / DeviceNet

AMG 11, AMG 11 + FSL

Terminal assignment - Profibus

View A - Connecting terminal in cover



Terminal significance - Profibus

| | |
|-----|--|
| A | Negative serial data transmission, pair 1 and pair 2 |
| B | Positive serial data transmission, pair 1 and pair 2 |
| UB | Supply voltage +9 ... +30 VDC |
| GND | Ground connection for UB |

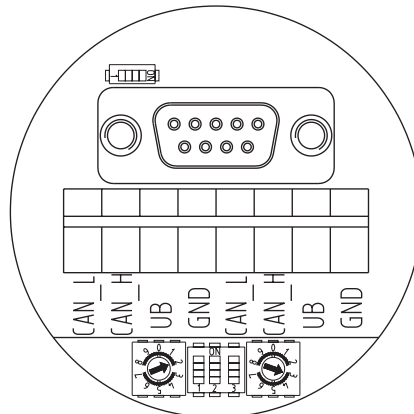
Terminals with the same label are internally connected.

Features - Profibus

| | |
|----------------------|---|
| Protocol | Profibus DP V0 |
| Profibus features | Device Class 1 and 2 |
| Data Exch. functions | Input: Position value Output: Preset value |
| Preset value | The „Preset“ parameter can be used to set the encoder to a predefined value that corresponds to a specific axis position of the system. |
| Parameter functions | Direction of rotation: The relationship between the direction of rotation and rising or falling output code values can be set in the operating parameter. Scaling: The parameter values set the number of steps per turn and the overall resolution. |
| Diagnostic | The encoder supports the following error messages: - Position error |
| Default settings | Device address 00 |

Terminal assignment - CANopen

View A - Connecting terminal in cover



Terminal significance - CANopen

| | |
|-------|--------------------------------|
| CAN_L | CAN Bus signal (dominant low) |
| CAN_H | CAN Bus signal (dominant high) |
| UB | Supply voltage +9 ... +30 VDC |
| GND | Ground connection for UB |

Terminals with the same label are internally connected.

Features - CANopen

| | |
|------------------|--|
| Protocol | CANopen |
| CANopen features | Device class 2 CAN 2.0B |
| Device profile | CANopen CiA DSP 406, V 3.0 |
| Operation modes | Polling mode (asynch, via SDO) Cyclic mode (asynch-cyclic) Synch mode (synch-cyclic) Acyclic mode (synch-acyclic) |
| Diagnostic | The encoder supports the following error messages: - Position error |
| Default settings | Device address 00 |

Codeurs absolu réseau

Axe sortant avec bride Euro B10

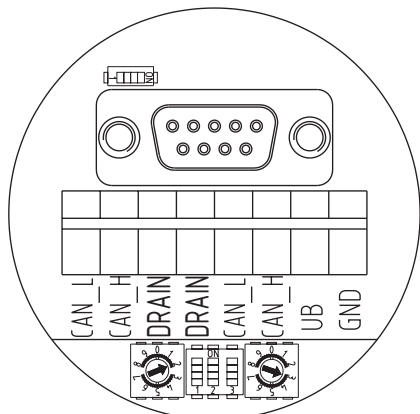
Codeur multitour 13 bits ST / 12 bits ou 16 Bit MT

CANopen / SSI / Profibus / DeviceNet

AMG 11, AMG 11 + FSL

Terminal assignment - DeviceNet

View A - Connecting terminal in cover



Terminal significance - DeviceNet

| | |
|-------|----------------------------------|
| CAN_L | CAN bus Signal (dominant Low) |
| CAN_H | CAN bus Signal (dominant High) |
| DRAIN | Shield connection |
| UB | Voltage supply +9 ... +30 VDC |
| GND | Ground connection relating to UB |

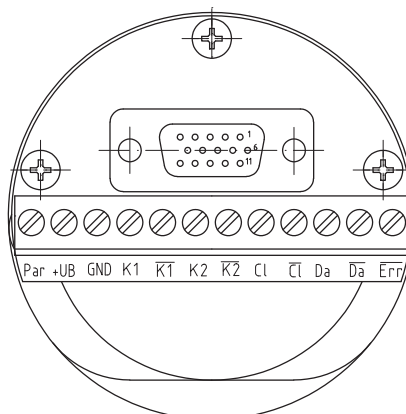
Terminals of the same significance are internally connected and identical in their functions. Max. load on the internal terminal connections UB-UB and GND-GND is 1 A each.

Features - DeviceNet

| | |
|---------------------|---|
| Protocol | DeviceNet |
| DeviceNet features | Device Profile for Encoders V 1.0 |
| Operating modes | I/O-Polling Cyclic Change of State |
| Preset value | The „Preset“ parameter can be used to set the encoder to a predefined value that corresponds to a specific axis position of the system. The offset of encoder zero point and mechanical zero point is stored in the encoder. |
| Parameter functions | Direction of rotation: The relationship between the direction of rotation and rising or falling output code values can be set in the operating parameter. Scaling: The parameter values set the number of steps per turn and the overall resolution. |
| Diagnostic | The encoder supports the following error warnings: - Position and parameter error |
| Default settings | User address 00 |

Terminal assignment - Incremental and/or SSI

View B - Connecting terminal in cover

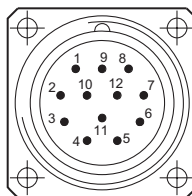


View C - Option

Flange socket, male contacts, counter-clockwise

| Male | Assignment |
|--------|-----------------------------|
| Pin 1 | $\overline{K2}$ |
| Pin 2 | Clock * |
| Pin 3 | Data * |
| Pin 4 | $\overline{\text{Data}}$ * |
| Pin 5 | K1 |
| Pin 6 | $\overline{K1}$ |
| Pin 7 | Param * |
| Pin 8 | K2 |
| Pin 9 | $\overline{\text{Error}}$ * |
| Pin 10 | GND |
| Pin 11 | $\overline{\text{Clock}}$ * |
| Pin 12 | +UB * |

* only for SSI



Codeurs absolu réseau

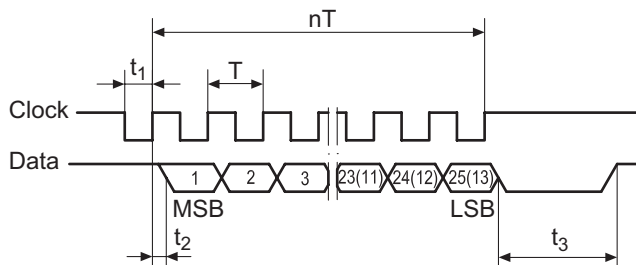
Axe sortant avec bride Euro B10

Codeur multitour 13 bits ST / 12 bits ou 16 Bit MT

CANopen / SSI / Profibus / DeviceNet

AMG 11, AMG 11 + FSL

Diagramme SSI



$$T = 1.25 \dots 10 \mu\text{s}$$

$$t_1 = 0.63 \dots 5 \mu\text{s}$$

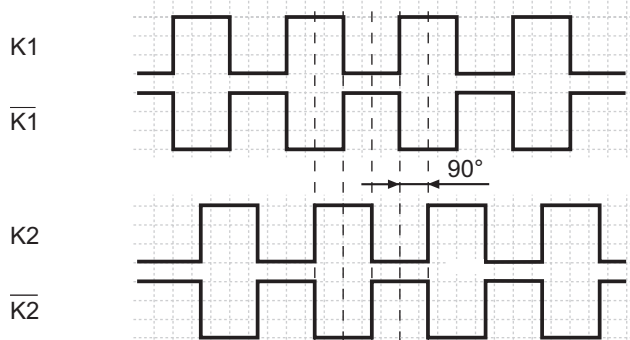
$$t_2 \leq 0.4 \mu\text{s}$$

$$t_3 = 12 \dots 30 \mu\text{s}$$

| | |
|-----------------|---------------|
| Clock frequency | 100...800 kHz |
|-----------------|---------------|

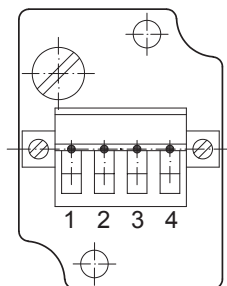
Signaux de sortie

Additional incremental signals
at positive direction of rotation



Raccordement

Connecting terminal mechanical speed switch FSL
View D



Make contact



Break contact

Codeurs absolu réseau

Axe sortant avec bride Euro B10

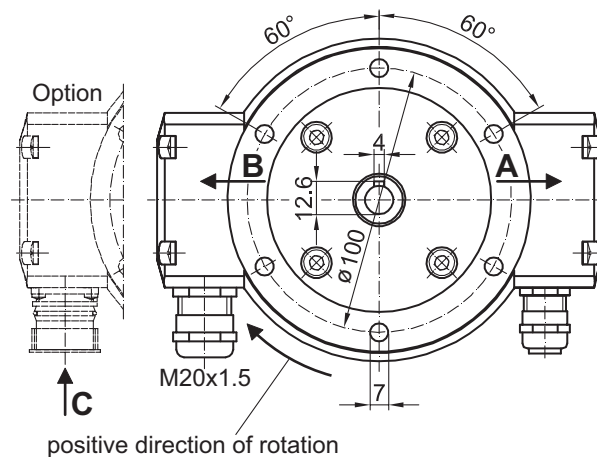
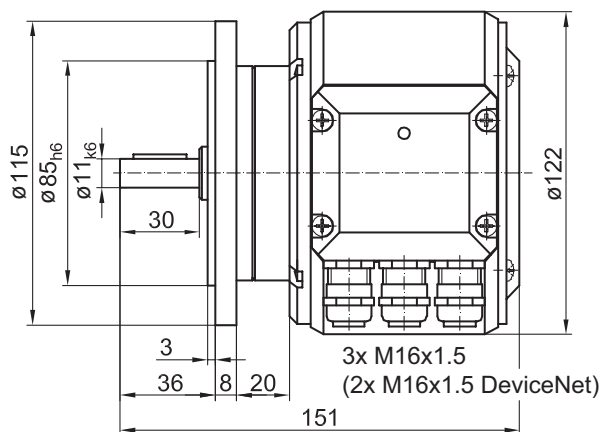
Codeur multitour 13 bits ST / 12 bits ou 16 Bit MT

CANopen / SSI / Profibus / DeviceNet

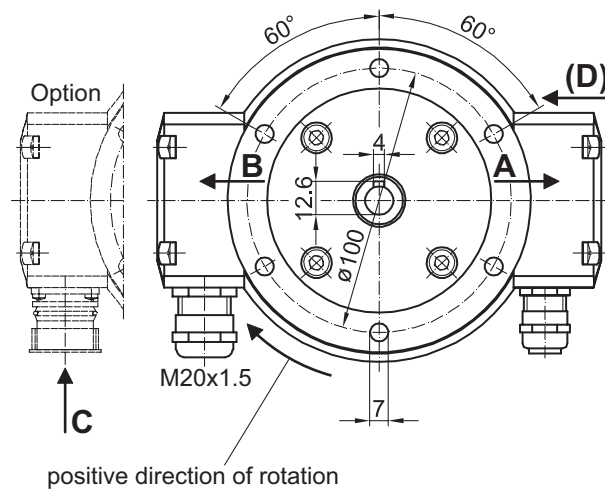
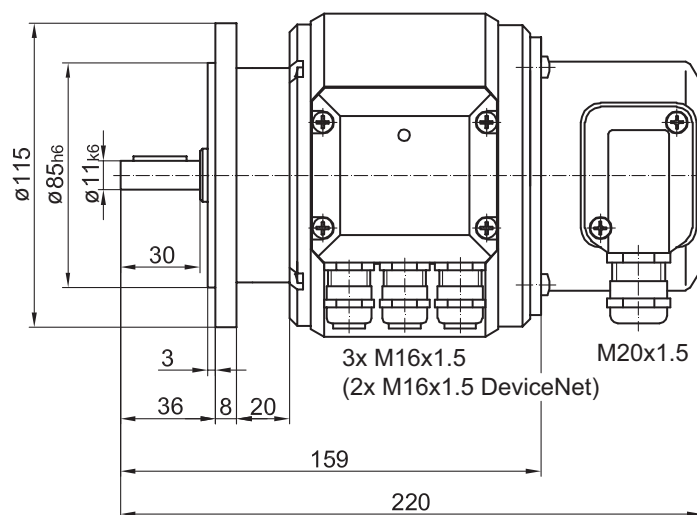
AMG 11, AMG 11 + FSL

Dimension

AMG 11 - Codeur absolu



AMG 11 + FSL - Codeur absolu avec relais de survitesse



Distribué par :



2 rue René Laennec 51500 Taissy France
 Fax: 03 26 85 19 08, Tel : 03 26 82 49 29

Email : hvssystem@hvssystem.com
 Site web : www.hvssystem.com