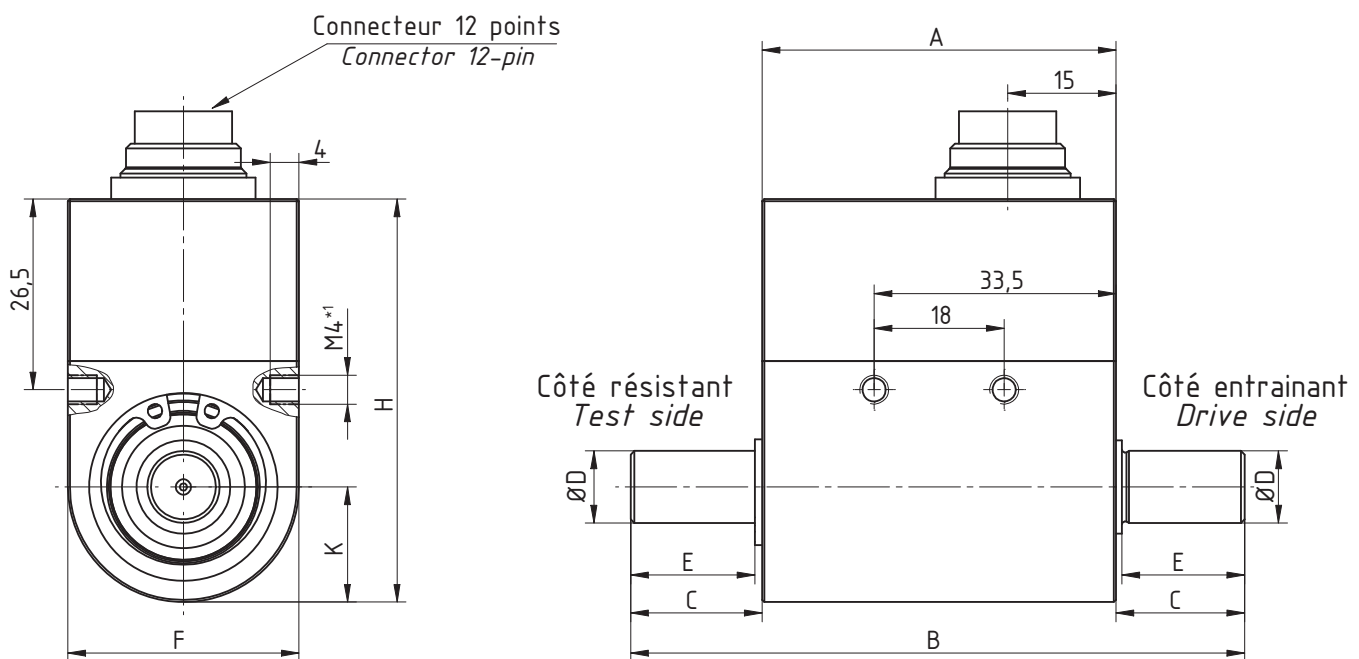


DR2112-DR2112L

0.1 ... 20 000 Nm



- Transmission digitale du signal, sans contact
- Maintenance réduite (pas de balais)
- Fréquence de rafraîchissement élevée (10 kHz)
- Vitesse de rotation jusqu'à 15 000 tr/min
- Classe de précision : 0.1 % (0.05 % en option)
- Grande rigidité torsionnelle
- Sortie angle/vitesse en option
- Contactless digital signal transmission
- Few needs for maintenance (no brush)
- High refreshing rate (10 kHz)
- Speed up to 15 000 tr/min
- High accuracy: 0.1 % (0.05 % in option)
- High torsional stiffness
- Angle/speed signal in option



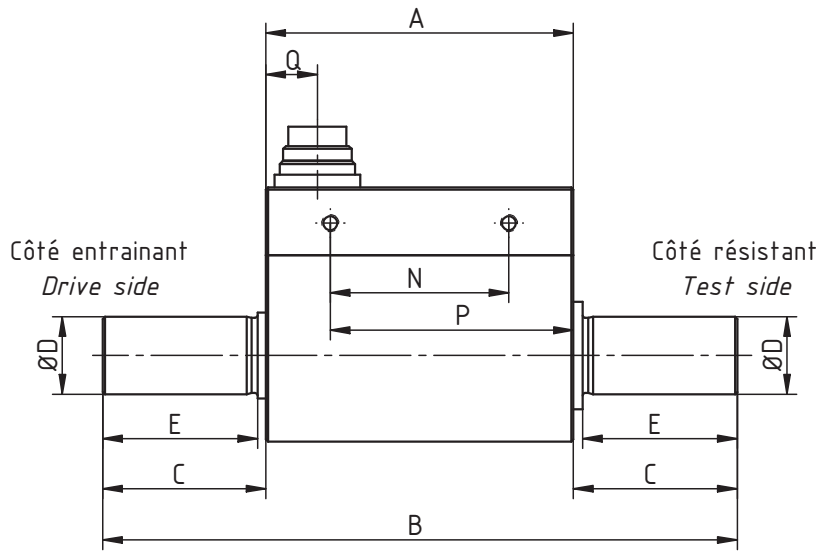
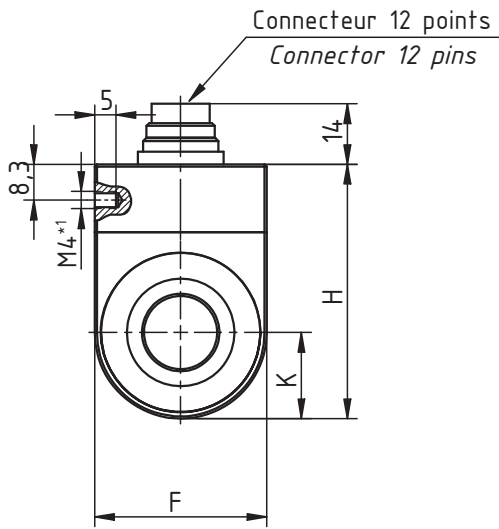
*1 : Trous taraudés pour système antirotation non rigide (ressort, fil, ...)
- Threaded hole or fixing ring for non rigid antirotation system (spring, wire, ...)

Toutes dimensions en mm. Dimensions et spécifications non contractuelles. Dessins techniques disponibles sur demande.
All dimensions in mm. Dimensions and specifications do not constitute any liability whatsoever. Technical drawings are available on request.

| Couple Nominal (C.N.) Nominal Torque [Nm] | Dimensions - Dimension [mm] | | | | | | | |
|-------------------------------------------------|-----------------------------|----|----|-------|----|----|----|----|
| | A | B | C | Ø D | E | F | H | K |
| 0.1, 0.2, 0.5, 1, 2, 5 | 49 | 85 | 18 | 8 g6 | 17 | 32 | 56 | 16 |
| 10 | 49 | 85 | 18 | 10 g6 | 17 | 32 | 56 | 16 |

DR2112-DR2112L

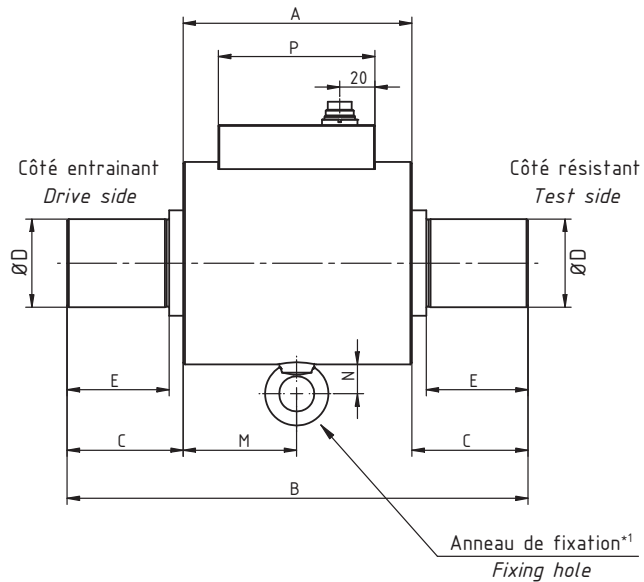
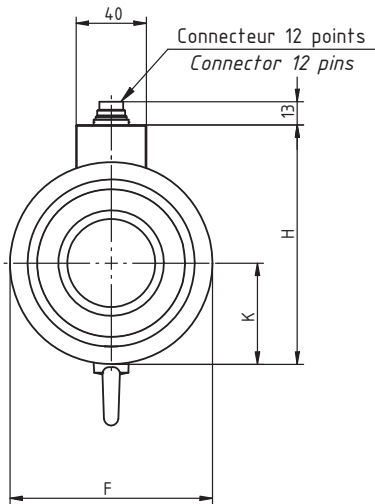
0.1 ... 20 000 Nm



*1 : Trous taraudés pour système antirotation non rigide (ressort, fil, ...)
 - Threaded hole or fixing ring for non rigid antirotation system (spring, wire, ...)

| Couple Nominal (C.N.) Nominal Torque [Nm] | Dimensions - Dimension [mm] | | | | | | | | | | | |
|-------------------------------------------------|-----------------------------|-------|------|-------|----|----|----|----|---|------|------|----|
| | A | B | C | ØD | E | F | H | K | M | N | P | Q |
| 20, 30 | 71.5 | 111.5 | 20 | 18 g6 | 18 | 40 | 59 | 20 | 5 | 41.5 | 56.5 | 12 |
| 50, 100 | 71.5 | 147.5 | 38 | 18 g6 | 36 | 40 | 59 | 20 | 5 | 41.5 | 56.5 | 12 |
| 200, 500 | 72.5 | 159.5 | 43.5 | 32 g6 | 38 | 58 | 76 | 29 | 6 | 29.5 | 51.5 | 15 |

Toutes dimensions en mm. Dimensions et spécifications non contractuelles. Dessins techniques disponibles sur demande.
 All dimensions in mm. Dimensions and specifications do not constitute any liability whatsoever. Technical drawings are available on request.



*1 : Anneau de fixation pour système antirotation non rigide (ressort, fil, ...)
 - Threaded hole or fixing ring for non rigid antirotation system (spring, wire, ...)

| Couple Nominal (C.N.) Nominal Torque [Nm] | Dimensions - Dimension [mm] | | | | | | | | | | |
|-------------------------------------------------|-----------------------------|-----|-----|--------|-----|-----|-----|------|------|----|----|
| | A | B | C | ØD | E | F | H | K | M | N | P |
| 1 000 | 130 | 262 | 66 | 50 g6 | 58 | 115 | 136 | 57.5 | 65.5 | 18 | 89 |
| 2 000*, 5 000* | 135 | 377 | 121 | 70 g6 | 110 | 139 | 161 | 69.5 | 67.5 | 18 | 89 |
| 10 000*, 20 000* | 190 | 470 | 140 | 110 g6 | 120 | 210 | 233 | 104 | 95 | 18 | 89 |

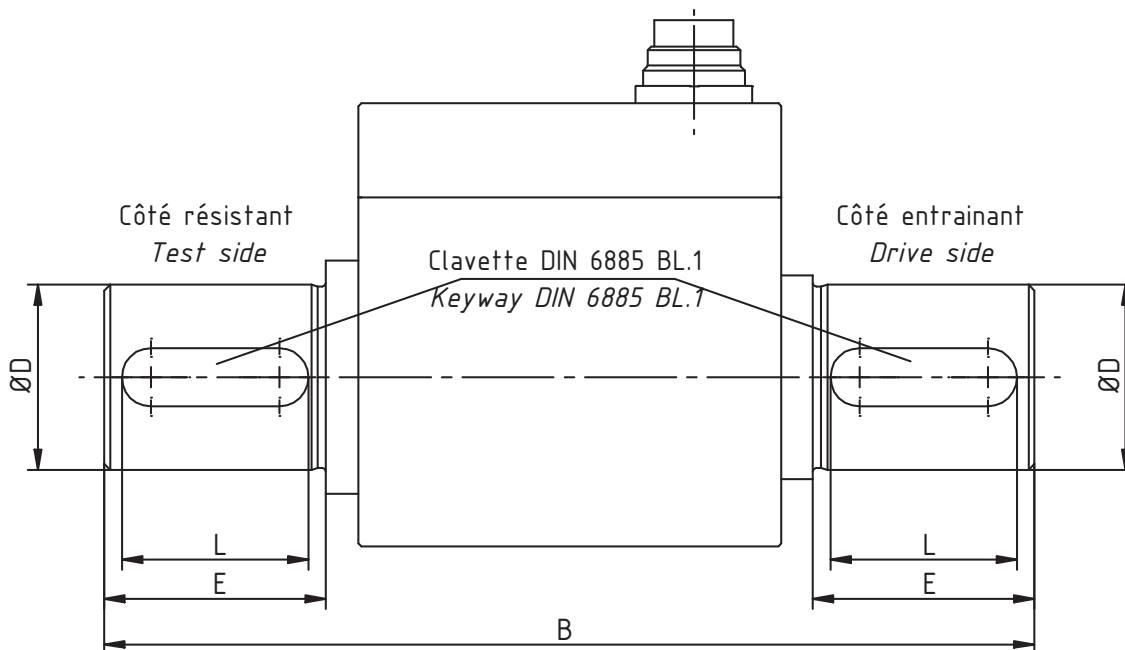
* Valable uniquement pour DR2112 - Only available for DR2112

Toutes dimensions en mm. Dimensions et spécifications non contractuelles. Dessins techniques disponibles sur demande.
 All dimensions in mm. Dimensions and specifications do not constitute any liability whatsoever. Technical drawings are available on request.

DR2112-DR2112L

0.1 ... 20 000 Nm

Option : Axe claveté (1 seule clavette par côté) - Shaft with feather key (only 1 keyway per side)



| Couple Nominal (C.N.) Nominal Torque [Nm] | Dimensions - Dimension [mm] | | | | Clavette Key way |
|-------------------------------------------------|-----------------------------|--------|-----|-----|---------------------|
| | B | Ø D | E | L | |
| 0.1, 0.2, 0.5, 1, 2, 5 | 85 | 8 g6 | 17 | 14 | 2 x 2 x 14 |
| 10 | 85 | 10 g6 | 17 | 14 | 3 x 3 x 14 |
| 20, 30 | 111.5 | 18 g6 | 18 | 14 | 6 x 6 x 14 |
| 50, 100 | 147.5 | 18 g6 | 36 | 30 | 6 x 6 x 30 |
| 200, 500 | 159.5 | 32 g6 | 38 | 36 | 10 x 8 x 36 |
| 1 000 | 262 | 50 g6 | 58 | 50 | 14 x 9 x 50 |
| 2 000, 5 000 | 377 | 70 g6 | 110 | 100 | 20 x 12 x 100 |
| 10 000, 20 000 | 570 | 110 g6 | 170 | 160 | 28 x 16 x 160 |

Toutes dimensions en mm. Dimensions et spécifications non contractuelles. Dessins techniques disponibles sur demande.
All dimensions in mm. Dimensions and specifications do not constitute any liability whatsoever. Technical drawings are available on request.

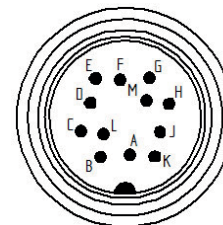
DR2112-DR2112L

0.1 ... 20 000 Nm

Connexions Électriques - Electric Connections

Connecteurs 12 points - 12 pins connectors (Binder Serie 581)

| | | | |
|-------|----------------------------------|---------------------|--------------------------------------------------|
| Pin A | NC | NC | |
| Pin B | Impulsions voie B (option) | Angle B (option) | TTL |
| Pin C | + signal | + signal | ±5 V (±10 V) |
| Pin D | - signal | - signal | 0 Vcc |
| Pin E | - alim. | - excit. | 0 Vcc |
| Pin F | + alim. | + excit. | 12 ... 28 Vcc |
| Pin G | Impulsions voie A (option) | Angle A (option) | TTL |
| Pin H | NC | NC | |
| Pin J | - RS485 (option) | - RS485 (option) | |
| Pin K | Cran de calibration (100 % C.N.) | Calibration control | Niv. 0 : $u < 2 V$; Niv. 1 : $3.5 V < u < 30 V$ |
| Pin L | + RS485 (option) | + RS485 (option) | |
| Pin M | Blindage | Housing | |



Nota : Contreprise femelle 12 contacts fournie - Female mating plug 12 pins provided

Caractéristiques Techniques - Technical specifications

| Couple Nominal (C.N.) Nominal Torque | Vitesse de rotation max. Max. speed | Raideur Springrate | Moment d'inertie ¹ Moment of inertia J in [kg m ²] | | Force axiale max. Max. axial load | Force de cisaillement max. ² Max. shear force |
|--------------------------------------------|-------------------------------------------|-----------------------|---------------------------------------------------------------------------------|-----------------------------|--------------------------------------|----------------------------------------------------------------|
| | | | Côté entrainant Drive side | Côté résistant Test side | | |
| [Nm] | [tr/min] | [Nm/rad] | | | [N] | [N] |
| 0.1 | 15 000 | 18 | 1.9×10^6 | 2.8×10^7 | 42 | 0.9 |
| 0.2 | 15 000 | 18 | 1.9×10^6 | 2.8×10^7 | 58 | 1.2 |
| 0.5 | 15 000 | 120 | 1.9×10^6 | 2.8×10^7 | 172 | 1.9 |
| 1 | 15 000 | 120 | 1.9×10^6 | 2.8×10^7 | 227 | 2.9 |
| 2 | 15 000 | 360 | 1.9×10^5 | 2.9×10^7 | 348 | 5.5 |
| 5 | 15 000 | 400 | 1.9×10^6 | 2.9×10^7 | 650 | 14 |
| 10 | 15 000 | 930 | 2.1×10^6 | 3.8×10^7 | 1 000 | 26 |
| 20 | 15 000 | 4 500 | 1.2×10^5 | 9.9×10^6 | 1 680 | 43 |
| 30 | 15 000 | 4 500 | 1.2×10^5 | 9.9×10^6 | 2 200 | 65 |
| 50 | 15 000 | 8.5×10^3 | 1.3×10^5 | 1.2×10^5 | 3 100 | 80 |
| 100 | 12 000 | 8.5×10^3 | 1.3×10^5 | 1.2×10^5 | 4 800 | 160 |
| 200 | 10 000 | 6.7×10^4 | 1.0×10^4 | 9.0×10^5 | 8 000 | 290 |
| 500 | 10 000 | 7.1×10^4 | 1.0×10^4 | 9.0×10^5 | 14 000 | 700 |
| 1 000 | 8 000 | 3.1×10^5 | 1.6×10^3 | 1.1×10^3 | 23 000 | 900 |
| 2 000* | 5 500 | 7.2×10^5 | 5.3×10^3 | 4.3×10^3 | 33 000 | 1 200 |
| 5 000* | 5 500 | 8.0×10^5 | 5.4×10^3 | 4.3×10^3 | 57 000 | 2 800 |
| 10 000* | 5 000 | 3.1×10^6 | 4.0×10^2 | 3.7×10^2 | 90 000 | 4 400 |
| 20 000* | 5 000 | 3.7×10^6 | 4.0×10^2 | 3.8×10^2 | 130 000 | 8 200 |

*Valable uniquement pour la série DR2112 - Only available for serie DR2112

¹ Sans l'option impulsion - Without option speed/angle



² Force radiale à la limite du roulement - Shear force near the ball bearing

ATTENTION : L'utilisation de deux accouplements est indispensable, ceux proposés par SCAIME vous assurent fiabilité et performance - The use of two couplings is essential, those proposed by SCAIME ensure you reliability and performance.

DR2112-DR2112L

0.1 ... 20 000 Nm

Caractéristiques - Specifications

| MÉCANIQUES | MECHANICAL | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Couple nominale (C.N.) | Nominal Torque (C.N.) | Voir page 3 - See page 3 | Nm |
| Couple statique max. * | Torque static max. * | 130 | % C.N. |
| Couple ultime avant rupture (statique) | Ultimate torque (static) | > 300 | % C.N. |
| Couple dynamique crête/crête max. | Dynamical torque peak/peak max. | 70 | % C.N. |
| PRÉCISIONS | ACCURACY | | |
| Classe de précision | Accuracy class | 0.1 / 0.2* | % C.N. |
| Répétabilité | Repeatability | ±0.02 / ±0.04* | % C.N. |
| Bande passante (-3 dB) | Cut off frequency (-3 dB) | 1 | kHz |
| ÉLECTRIQUES | ELECTRICAL | | |
| Tension d'alimentation | Supply voltage | 12 ... 28 | VCC |
| Courant d'alimentation | Supply current | < 60 | mA |
| Signal de sortie | Output signal | ±5** | V ±0.1 % |
| Courant de sortie max. | Output current max | 5 | mA |
| Principe de connexion | Connection type | Connecteur - Connector | |
| GÉNÉRALES | GENERAL | | |
| Plage de température compensée | Nominal temperature range | +5 ... +45 | °C |
| Plage de température opérationnelle | Service temperature range | 0 ... +60 | °C |
| Dérive thermique de sensibilité | Temperature coefficient of sensitivity | ±0.01 / ±0.02* | % C.N./°C |
| Dérive thermique de zéro | Temperature coefficient of zero signal | ±0.02 / ±0.03* | % C.N./°C |
| Degré de protection (DIN EN 60529) | Level of protection (DIN EN 60529) | IP50 | |
| Temps de réponse | Response time | 200 | µs |
| Matière | Material | Acier inox - Stainless steel | |
| * Pour DR2112L seulement - only available DR2112L | | | |
| ** Attention : le signal de sortie sera en saturation en dessus de 110 %, cette valeur ne doit être atteinte qu'exceptionnellement - The output signal will be saturated above 110 %, this limit should be reached exceptionally | | | |
| OPTIONS | OPTIONS | | |
| Signal de sortie | Output signal | ±10 / 5 ±5 | V |
| Mesure d'angle et de vitesse | Angle-speed control | -W : 2x360 impulsions - pulses 5V TTL 2 signaux à 90° (C.N. ≥ 10 000 Nm : -D : 1 signal : 60 pulses | Sens horaire - CW-turn CH A  CH B  |
| C.N. spéciales | Special ranges | | |
| Sortie numérique | Digital output | RS485 | |
| Classe de précision DR2112 | Accuracy class DR2112 | 0.05 | % C.N. |
| Axe claveté | Shaft with keyway | | |

Accessoires - Accessories



ACCOUPLMENT



GM80



PAX



SDI-718B