



Incremental encoders DFS60, rotary

DFS60B-BEPA10000



Type produit > **DFS60B-BEPA10000**
Numéro de commande > **1036768**



At a glance

- Compact installation depth
- High resolution up to 16 bits
- Optionally programmable: Output voltage, zero pulse position, zero pulse width and number of pulses
- Connection: Radial or axial cable outlet, M23 or M12 connector, axial or radial
- Electrical interfaces: 5V & 24V TTL/RS-422, 24 V HTL/push pull
- Mechanical interfaces: face mount or servo flange, blind or through hollow shaft
- Remote zero set possible

Your benefits

- Reduced storage costs and downtime due to programming by customer
- High variety of different mechanical and electrical interfaces enable the encoder to be optimally adapted to the installation situation for the specific application
- Excellent concentricity even at high speeds
- The high resolution of up to 16 bits makes applications with high measuring accuracy requirements possible
- Permanent and safe operation due to high enclosure rating, temperature resistance and bearing lifetime
- Programmability via the PGT-08 programming software and the PGT-10-S display programming tool allow the encoder to be adapted flexibly and quickly to customer needs.
- Programmable zero pulse position simplifies installation



Performance

Limites d'erreur:	± 0,05 °
Pas de mesure:	90 °/electronically/number of lines
Durée d'initialisation:	32 ms ¹⁾ 30 ms
Nombre de pas max. par tour:	10.000

¹⁾ With mechanical zero pulse width

Données de mécanique

Mechanical interface:	Arbre creux non traversant
Diamètre de l'arbre:	12 mm
Mass:	0,2 kg
Couple de démarrage:	0,8 Ncm (20 °C)

Couple de fonctionnement ::	0,6 Ncm (20 °C)
Permissible movement axial static/dynamic:	± 0,5 mm, ± 0,2 mm
Permissible movement radial static/dynamic:	± 0,3 mm, ± 0,1 mm
Maximum operating speed:	6.000 /min
Moment d'inertie du rotor:	40 gcm ²
Durée de stockage:	3.6 x 10 ¹⁰ revolutions
Accélération angulaire max.:	500.000 rad/s ²
Shaft material:	metal

Données de électrique

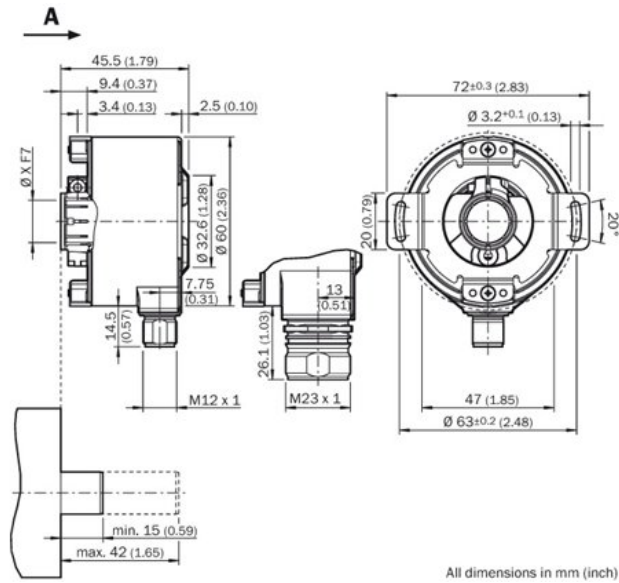
Interface électrique:	Connector M23, 12-pin, radial, TTL/HTL programmable
Raccordement:	Connector M23, 12-pin, radial
Maximum output frequency:	600 kHz
Signal de référence, nombre:	1
Signal de référence, position:	90 °, electronically, gated with A and B
Operating voltage range:	4,5 V ... 32 V
Load current max.:	30 mA
Puissance:	0,7 W (sans charge)

Caractéristiques ambiantes

CEM:	According to EN 61000-6-2 and EN 61000-6-3
Working temperature range:	-30 °C ... 100 °C
Storage temperature range:	-40 °C ... 100 °C, without package
Résistance aux chocs:	70 g (according to EN 60068-2-27)
Résistance aux vibrations:	30 g, 10 Hz ... 2.000 Hz (according to EN 60068-2-6)
Indice de protection:	IP 67, according to IEC 60529 IP 65, according to IEC 60529, shaft side
Humidité relative admissible:	90 % (Condensation of the optical scanning not permitted)

¹⁾ With mating connector fitted

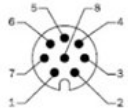
Plan coté



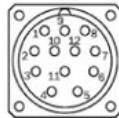
PIN assignment

B-core cable

View of M12 device connector on encoder



View of M23 device connector on encoder



PIN, 8-pin, M12 connector	PIN, 12-pin, M23 connector	Core colors of encoders with cable outlet	TTL/HTL signal	Explanation
1	6	Brown	\bar{A}	Signal cable
2	5	White	A	Signal cable
3	1	Black	\bar{B}	Signal cable
4	8	Pink	B	Signal cable
5	4	Yellow	\bar{Z}	Signal cable
6	3	Lilac	Z	Signal cable
7	10	Blue	GND	Ground connection of the encoder
8	12	Red	+U _s	Supply voltage (volt-free to housing)
-	9	-	N.C.	Not assigned
-	2	-	N.C.	Not assigned
-	11	-	N.C.	Not assigned
-	7*	-	SET	Zero pulse teach
Shield	Shield	Shield	Shield	Shield connected to housing on side of encoder. Connected to ground on side of control.

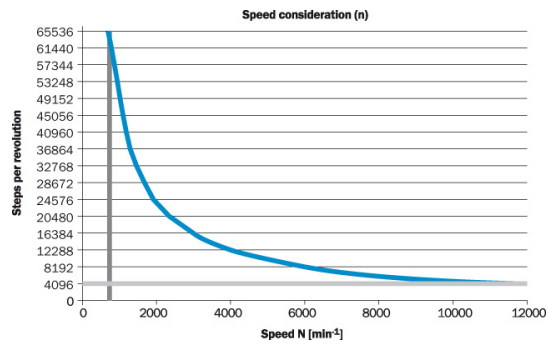
* Only at 4.5 ... 32 V, TTL/HTL programmable

The SET input serves to carry out the zero pulse teach function. If the SET input is applied to U_s for longer than 250 ms, after it has been open for at least 1,000 ms or applied to GND, the current shaft position is assigned the zero pulse signal "Z".

Signalansgänge

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Drehzahlbetrachtung



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