

CANOPEN ABSOLUTE MULTITURN ENCODERS, SHM9 RANGE

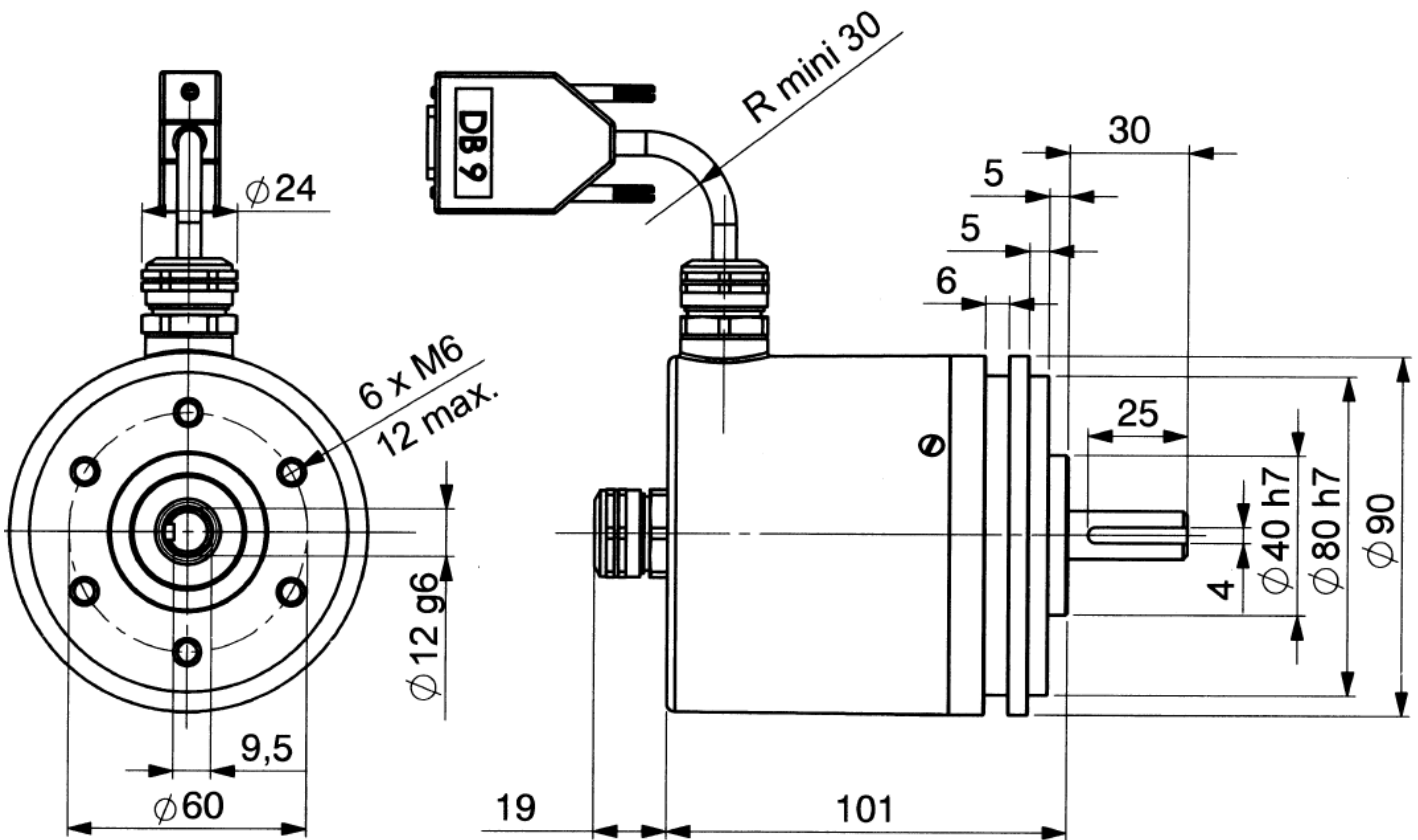


Especially designed for Heavy Duty Industry (steel, paper, wood – mills, cranes...). Compact and robust conception. Excellent resistance to shocks/vibrations and to extreme axial/radial loads

They conform to the ISO 11 898 and meet the specifications of the DS201 to 207 v1.1, DS301 v3.0, DS Proposal 406 v1.0 and the CAN2.A (CiA)

CANopen

Also available in parallel, SSI and fieldbus interfaces : DeviceNet and Profibus



CHARACTERISTICS

Material	Cover : zinc alloy	Vibration (EN60068-2-6)	≤ 100 m.s ⁻² (10 ... 500 Hz)	
Stainless steel option	Body: aluminium	EMC	EN 50081-1, EN 61000-6-2	
Shaft	Stainless steel	Isolation	1 000 V eff	
Bearings	6001 serie	Encoder weight (approx.)	1,100kg zinc cover, alu body	
Maximal loads	Axial : 100 N		2,400kg zinc cover, stainless steel body	
	Radial : 200 N		2,600kg stainless steel cover and body	
Shaft inertia	≤ 15.10 ⁻⁶ kg.m ²	Operating temperature	- 10... + 70 °C (encoder T°)	
Torque	≤ 10.10 ⁻³ N.m	Storage temperature	- 10... + 70 °C	
Permissible max. speed	6 000 min ⁻¹	Protection(EN 60529)	IP 67 (cable)	
Continuous max speed	6 000 min ⁻¹	Theoretical electrical lifetime 10 ⁹ turns (F _{axial} / F _{radial})		
Shaft seal	Viton	20 N / 30 N	50 N / 100 N	100 N / 200 N
Shocs (EN60068-2-27)	≤ 300 m.s ⁻² (during 6 ms)	360	18	2,2

CANOPEN ABSOLUTE MULTITURN ENCODERS, SHM9 RANGE

Programmable parameters

Resolution: defines the resolution per revolution (0 to 8 192)

Global resolution (MAX RANGE) : total amount of codes for the encoder (2 to 536 870 911)

Transmission speed : programmable from 10kbaud (1000m) to 1 Mbaud (40 m) ; value per default: 20 Kbaud

Address: define the software address of the encoder on the bus (1 to 127, value by default: id = 1)

Direction : define the direction of count of the encoder

2 programmable markers a high marker and a low marker

RAX : defines the value of its preset position (non turning shaft)

Communication modes

3 modes are available to interrogate the encoder :

POLLING mode: the encoder transmits the position on the demand of the master. This mode permits the programming and the interrogation of the parameters of the encoder as well as its position

CYCLIC mode: the encoder transmits its position in an asynchronous manner. The frequency of the transmission is defined by the programmable cyclical timer register from 0 to 65 535 ms

SYNCHRO mode: the encoder transmits its position on a synchronous demand by the master

CANOPEN CONNECTION

1	2	3	4	5	6	7	8	9
DEFAULT	CAN LOW	CAN GND	N.C.	N.C.	0V	CAN HIGH	N.C.	11/30Vdc

DEFAULT : an impulereset the encoder at the speed : 20kbaud, adress=1, Clock-wise, Multiturn - 13bits resolution

Nota : Refer to the bus standards for the maximal derivation length

ORDERING CODE (Special versions upon request, for ex. special flanges/electronics/connections...)

	Shaft Ø	Supply	Output stage	Code	Resolution	Number of turns	Connection	Connection orientation	
SHM9 Zinc cover Alu body								Example :	
SBM9 Zinc cover Stainless steel body	11:11mm 12:12mm	5 : 11 to 30Vdc	BB : CANopen	B: Binary	13 : 8192 points per turn (2 ¹³)	B16 : 65 536 turns (2 ¹⁶)	BB: PUR cable output + DB9	R010 : radial cable of 1m A010 : axial cable of 1m	
SXM9 Stainless steel cover & body									
SHM9	-	12 //	5	BB	B //	13	B16 //	BB	R010

Made in FRANCE