

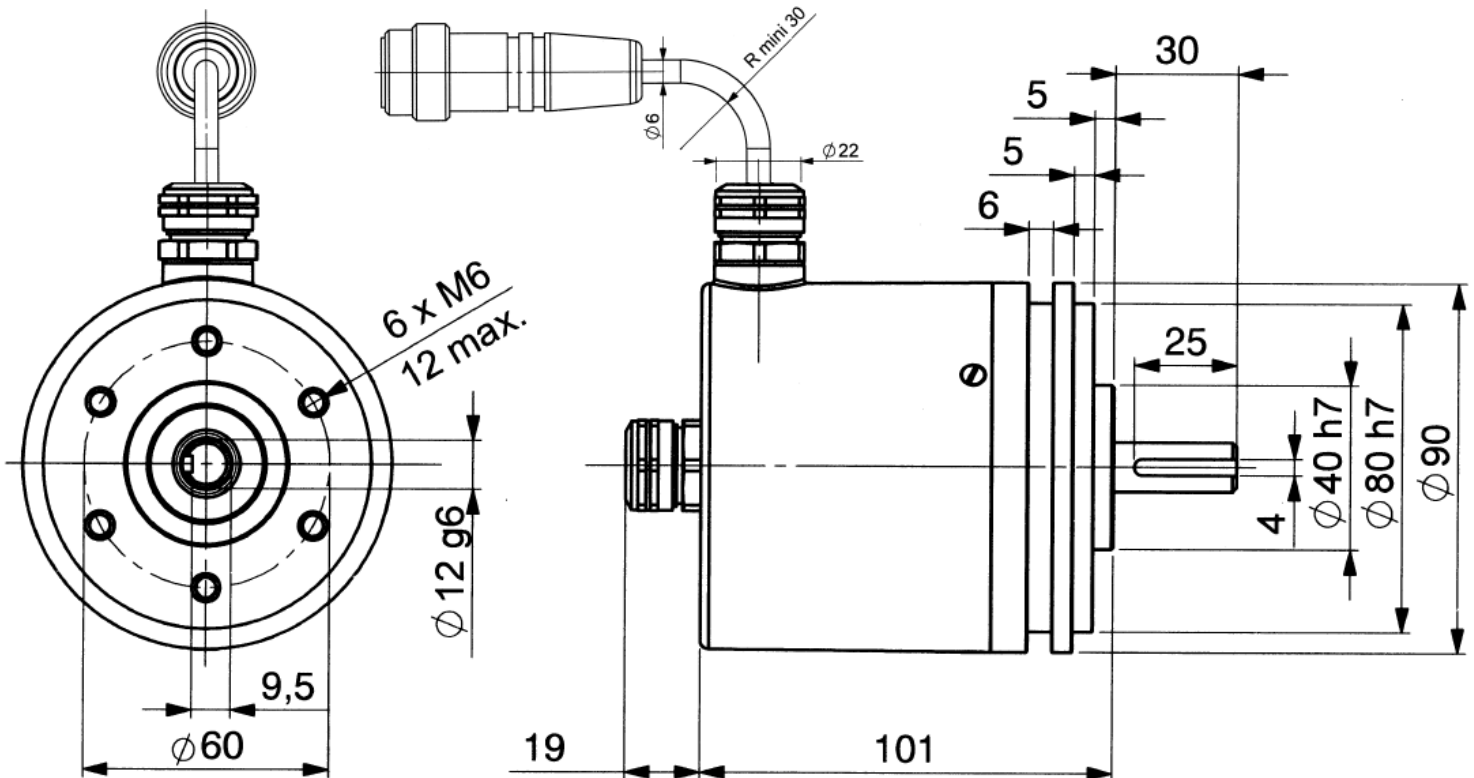
## DEVICENET ABSOLUTE MULTITURN ENCODERS, SHM9 RANGE

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 V2.0 specifications of the ODVA



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



### CHARACTERISTICS

Material	Cover : zinc alloy
	Stainless steel option
Shaft	Stainless steel
Bearings	6001 serie
Maximal loads	Axial : 100 N
	Radial : 200 N
Shaft inertia	$\leq 15 \cdot 10^{-6}$ kg.m <sup>2</sup>
Torque	$\leq 10 \cdot 10^{-3}$ N.m
Permissible max. speed	6 000 min <sup>-1</sup>
Continuous max speed	6 000 min <sup>-1</sup>
Shaft seal	Viton
Shocs (EN60068-2-27)	$\leq 300$ m.s <sup>-2</sup> (during 6 ms)

Vibration (EN60068-2-6)	$\leq 100$ m.s <sup>-2</sup> (10 ... 500 Hz)	
EMC	EN 50081-1, EN 61000-6-2	
Isolation	1 000 V eff	
Encoder weight (approx.)	1,100kg zinc cover, alu body	
	2,400kg zinc cover, stainless steel body	
	2,600kg stainless steel cover and body	
Operating temperature	- 10... + 70 °C (encoder T°)	
Storage temperature	- 10... + 70 °C	
Protection(EN 60529)	IP 67 (cable)	
Theoretical electrical lifetime 10 <sup>9</sup> turns (F <sub>axial</sub> / F <sub>radial</sub> )		
20 N / 30 N	50 N / 100 N	100 N / 200 N
360	18	2,2

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### Programmable Parameters

**Resolution** could be 13, 10, 2 and 0 bits

**Reset to a value (X)** : puts the code of the present position to 0 (immobile shaft)

**Transmission speed**: configurable at 125 kBaud (default value), 250 kBaud, 500 kBaud

**Address**: defines the position of the encoder on the bus 1 to 63, default value: id = 63

**The Communication Modes: The interrogation of the encoders could be done according to the following 4 modes :**

**CYCLIC Mode**: the encoder transmits its position at the start of a programmed timer via the bus (with no answer). With an answer, the master must send an acknowledgement of the position of each frame

**BIT STROBE Mode**: A general request from the master (broadcast) makes it possible to interrogate max. 64 devices simultaneously

**EXPLICIT Mode**: This mode makes it possible to program and interrogate the parameters of the encoder, as well as its position

**POOLING Mode**: the encoder answers upon request of the master

The user manual and the ESD file are delivered with the encoder

### CONNECTIQUE DEVICENET

1	2	3	4	5
DRAIN	24V	GND	CAN HIGH	CAN LOW

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
<b>SHM9</b> Zinc cover Alu body	11 : 11mm	5 : 11 to 30Vdc	BA : DeviceNet	B: Binary	13 : 8192 points per turn (2 <sup>13</sup> )	B16 : 65 536 turns (2 <sup>16</sup> )	BA: Cable gland + 1m cable + miniC 5 pins connector	Example :  R010 : radial cable de 1m
<b>SBM9</b> Zinc cover Stainless steel body	12 : 12mm							
<b>SXM9</b> Stainless steel cover & body								
<b>SHM9 _</b>	12 //	5	BA	B //	13	B16 //	BA	R010

Made in FRANCE