



Incremental encoder with flameproof enclosure



- ▶ II 2 GD EEx d IIC T5/T6 IP65
- ▶ High vibration and shock resistance according to IEC 68-2-6 and IEC 68-2-27
- ▶ 3 or 6 short-circuit protected outputs
- ▶ 9...30 Vdc, polarity protected power supply
- ▶ Available with advanced internal diagnostics, ADS



ELECTRICAL SPECIFICATION

Supply voltage +EV	9-30V
	Polarity protected
Current consumption at no load	60mA @ 24V Max 80mA
Line counts	360, 500, 1000, 1024, 2000, 2048, 2500, 3072, 3600, 4096, 5000, 6350, 10 000
Measuring steps	4 x Line counts
Accuracy	
Dividing error	± 50° el
Channel separation	90° ± 25° el
Outputs	High current HTL
Load max	± 40mA
Cable length max	350m @ 100kHz
U _{high} (at 40mA load)	> +EV - 4,0V
U _{low} (at 40mA load)	< 2,5V
Frequency range	0...100kHz
Option	Advanced Diagnostic System ADS
Alarm output	Opto-coupler
OK	Closed-circuit V _{CE} < 2V at 10mA
Error	Open-circuit min 500ms
Voltage max	35V
Current max	30mA
PC communication	RS-232 Max 10m cable

ACCESSORIES

Torque bracket	Part. No. 01209118
Torque arm M5	Part. No. 01208013
Torque arm M6	Part. No. 01208014
Cable gland	
EEx d IIC, M20x1,5	Part. No. 00208040
Accessory cable	Part. No. 01209128
ADS PC software kit	Part. No. 01209084

POSSIBLE OPTIONS / PERFORMANCES OF EEX 841

The possible options/performances of EEx 841 are limited by the certificate (SP04ATEX3619X). The possible options/performances are:

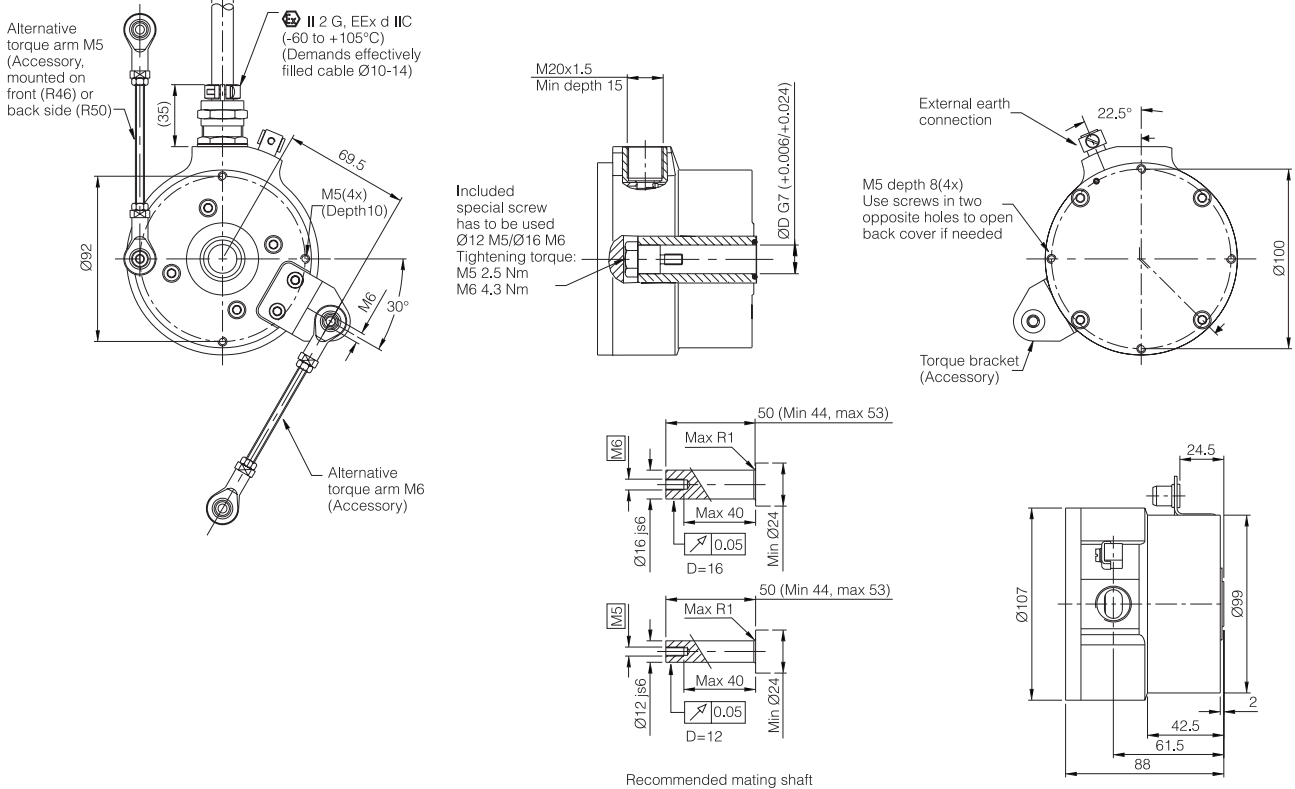
- Line counts other than mentioned in the specification on request. Only glass discs can be manufactured.
- Temperature class: (Ta = ambient temperature)
 - T6, -20°C < Ta < +40°C, 4200rpm max
 - T5, -20°C < Ta < +60°C, 4200rpm max
 - T5, -20°C < Ta < +70°C, 1500rpm max
 T5 means that the surface temperature of the encoder never exceeds 100°C (running). Most Ex-classified motors are working in class T3 (200°) which means that an encoder with T5 can be used together with these motors.
- Electronics with screw terminal connection and 3 or 6 channel output, all short-circuit protected via PTC
- ADS, Advanced Diagnostic System is available on request.

CONNECTION

Function	Terminal	
+ E Volt	1	
0 Volt	2	
0	3	* 3 channel output
0 (0 Volt *)	4	All 0 Volt pins are internally connected on the PCB
1	5	
1 (0 Volt *)	6	
2	7	
2 (0 Volt *)	8	
Alarm +	9	ADS outputs
Alarm -	10	

Example of cable and EEx d IIC gland
(Accessories)

Ø12 (Accessory cable 5x2x0,5 mm²+
1x1,2 mm², screened, filled, -40 to +95°C)



Recommended mating shaft

MECHANICAL SPECIFICATION

Hollow-shaft	Ø 12, 16mm	Stainless steel
Moment of inertia	62 x 10 ⁻⁶ kgm ²	
Load max		
Radial	150 N	
Axial	100 N	
Speed max	4200 rpm	
Code disc	Extended temp	
Temperature		
Operating	-20°C ... +70°C	
Storage	-20°C ... +70°C	
Housing	Aluminum, anodized	
Weight	Approx. 1700g	
Protection class	IP 65 according to IEC 529	
Vibration	<100m/s ² (50...2000 Hz)	
Shock	<1000m/s ² (11ms)	

ORDERING INFORMATION

Available models

841910001
EEx d IIC T5, -20°C<Ta+60°C, 4200rpm max
2048ppr, 6 outputs, 9-30Vdc, Ø12mm

841910002
EEx d IIC T5, -20°C<Ta+60°C, 4200rpm max
1024ppr, 6 outputs, 9-30Vdc, Ø12mm

841910003
EEx d IIC T5, -20°C<Ta+60°C, 4200rpm max
1024ppr, 6 outputs, 9-30Vdc, Ø16mm

841910004
EEx d IIC T5, -20°C<Ta+60°C, 4200rpm max
2048ppr, 3 outputs, 9-30Vdc, Ø12mm

841910005
EEx d IIC T5, -20°C<Ta+60°C, 4200rpm max
2048ppr, 3 outputs, 9-30Vdc, Ø16mm

841910006
EEx d IIC T5, -20°C<Ta+60°C, 4200rpm max
1024ppr, 6 outputs, 9-30Vdc, Ø16mm, ADS

Other combinations available upon request.

Leine & Linde ISO 9001 / ISO 14001 certified

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04-06-17 PS. Specifications can be changed without prior notice.