

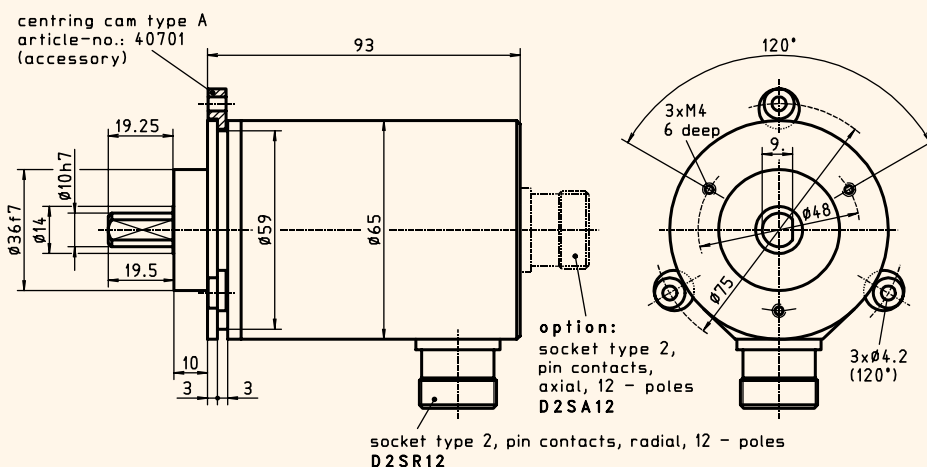
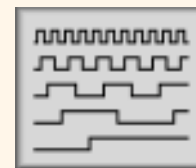
Absolute - Encoder SSI

ATD 3S B14 Y 1



Qualities:

- Rugged Single- resp. Multiturn-Absolut-Encoder
- **Steps** per revolution up to **13 Bit** (8192 steps)
- Centering seat $\varnothing 36$, mounting punch circle $\varnothing 48$
- Execution of interface **SSI** (Synchronous Serial Interface)
- Connector version
- Multiturn-version (up to 4096 shaft turns) optional



ATD 3.. B14 Y 1

drawing-no.: 026 - 31 Y 1

Mechanical data:

Housing		light-alloy metal, black	
Design style	B14	B14	
Protective class	IP65	IP 65	according to DIN 40 050, IEC 529
Construction principle		LED with glas slotdisc	
max. speed (mechanical)	n_{max}	≤ 6000 rpm	
Admissible shaft load	axial	≤ 40 N	
	radial	≤ 60 N	(at shaft end)
Starting torque	at 20 ° C	≤ 2 Ncm	
Vibration	55... 2000 Hz	≤ 100 m/s ²	according to DIN IEC 68, Teil 2-6
Shock	11 ms	≤ 300 m/s ²	according to DIN IEC 68, Teil 2-7
Moment of inertia (rotor)		approx. 25 gcm ²	
Shaft diameter	d	10 mm	
Weight		approx. 600 g	

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Electrical data:

• Steps per revolution	<i>Single- / Multiturn</i>	XX	4096 (12 Bit), 8192 (13 Bit), ... steps per revolution
• Number of turns	<i>Multiturn</i>	YY	4096 (12 Bit) shaft turns
• Execution of electronic	<i>seriell</i>	SS	Output stage: SSI (Synchronous-Serial Interface)
• Output code		GR	Gray-Code
		BI	Binär-Code
Accuracy	G		± 20 % according to 1 step
Supply voltage:	U _B		11 - 30 VDC
Loss efficiency (no load)	P _{max}		≤ 3 Watt
Clock input			opto couplers
Clock frequency	f _T		80 kHz to 750 kHz
Output driver			RS-422 (2-wire) (over loading proofed)
Frequency limit (LSB)	f _G		200 kHz
• Type of connection		D2SR12	socket type 2, pin contacts, radial, 12-poles
• Operating temperature range		S	0 °C to + 60 °C

Options:

• Type of connection	D2SA12	socket type 2, pin contacts, axial, 12-poles
• Operating temperature range	E	- 20 °C to + 70 °C
• Further options upon request		

Accessories:

Connector, for version D2S..12	S2BG12	connector type 2, bush contacts, straight, 12-poles
Centring cam-set type A (3 pcs.)		article-no.: 40701-3

Connection table:

<i>cable</i>	<i>D2S..12</i>	<i>signals</i>	<i>explanation</i>
white	PIN 1	= clock -	
brown	PIN 2	= clock +	
green	PIN 3	= Data +	
yellow	PIN 4	= Data -	
grey	PIN 5	= NC	
pink	PIN 6	= NC	
blue	PIN 7	= NC	
red	PIN 8	= V / R	< > Data sequence switchover
black	PIN 9	= NC	LOW = Data sequence going up
violet	PIN 10	= NC	HIGH = Data sequence cascading
grey/pink	PIN 11	= + U _B	<i>Clockwise rotation when looking at the end of the shaft. (mounting side)</i>
red/blue	PIN 12	= 0 V	

Ordering example:

ATD 3S	B14	Y 1	12/12	SS	GR	D2SR12	S	10	IP65
Absolut-Encoder ATD 3S	Design style B14	Mechanical variante Y 1 = look at the drawing	Steps / rev. / no. of turns 4096 (12 Bit) steps/rev. 4096 (12 Bit) rev.	Execution of electronic SSI (synchronous serial)	Output code Gray-Code	Type of connection socket type 2, pin contacts, radial, 12-poles	Operating temperature 0 °C to +60 °C	Shaft diameter 10 mm	Protective class IP 65