

This drawing contains confidential and/or privileged information. Any unauthorized copying, disclosure or distribution of the material in this drawing is strictly forbidden.  
Diese Zeichnung beinhaltet vertrauliche Informationen. Unerlaubte Vervielfältigung, Veröffentlichung oder Verbreitung dieser Informationen ist strengstens untersagt.

Parameter	Standard Mode	Degraded Mode
<b>Operating Data Clutch</b>		
Supply Voltage (rated)	28 V	
Supply Voltage Range	24 ... 30 V DC	
Rated Current <sub>1</sub> at rated voltage	1,1 A	
Rated transmittable Torque <sub>2</sub> at rated voltage (without slippage)	30 Nm	
Operating Temperature	-30 ... +40 °C	
<b>Operating Data Servo</b> <i>(please see datasheet of DA 30-D for more details)</i>		
Supply Voltage (rated)	28 V DC	
Supply Voltage Range	12 ... 32 V DC	
Standby Current <sub>1</sub> at rated voltage	0,1 A	0,1 A
Rated Current <sub>1</sub> at rated voltage	3,2 A	1,9 A
Peak Current <sub>1</sub> at rated voltage	5,2 A	N.A.
Rated Torque <sub>1</sub> at rated speed	20,0 Nm	8,0 Nm
Peak Torque <sub>1</sub> at rated voltage	>32,0 Nm	12,0 Nm
No Load Speed <sub>1</sub> at rated voltage	200 °/s	<120 °/s
Rated Speed <sub>1</sub> at rated torque	110 °/s	<80 °/s
Max. Travel Angle <sub>3</sub>	±160° = 320° total travel	
Backlash (mechanical)	≤ 0,6°	
Position Error under Temperature <sub>4</sub>	≤ ±1°	
Operating Temperature Range	-30 ... +70 °C	
Storage Temperature Range	-55 ... +85 °C	
Weight <sub>1</sub>	3500 g	

1) Tolerance ±10%  
2) Tolerance ±20%

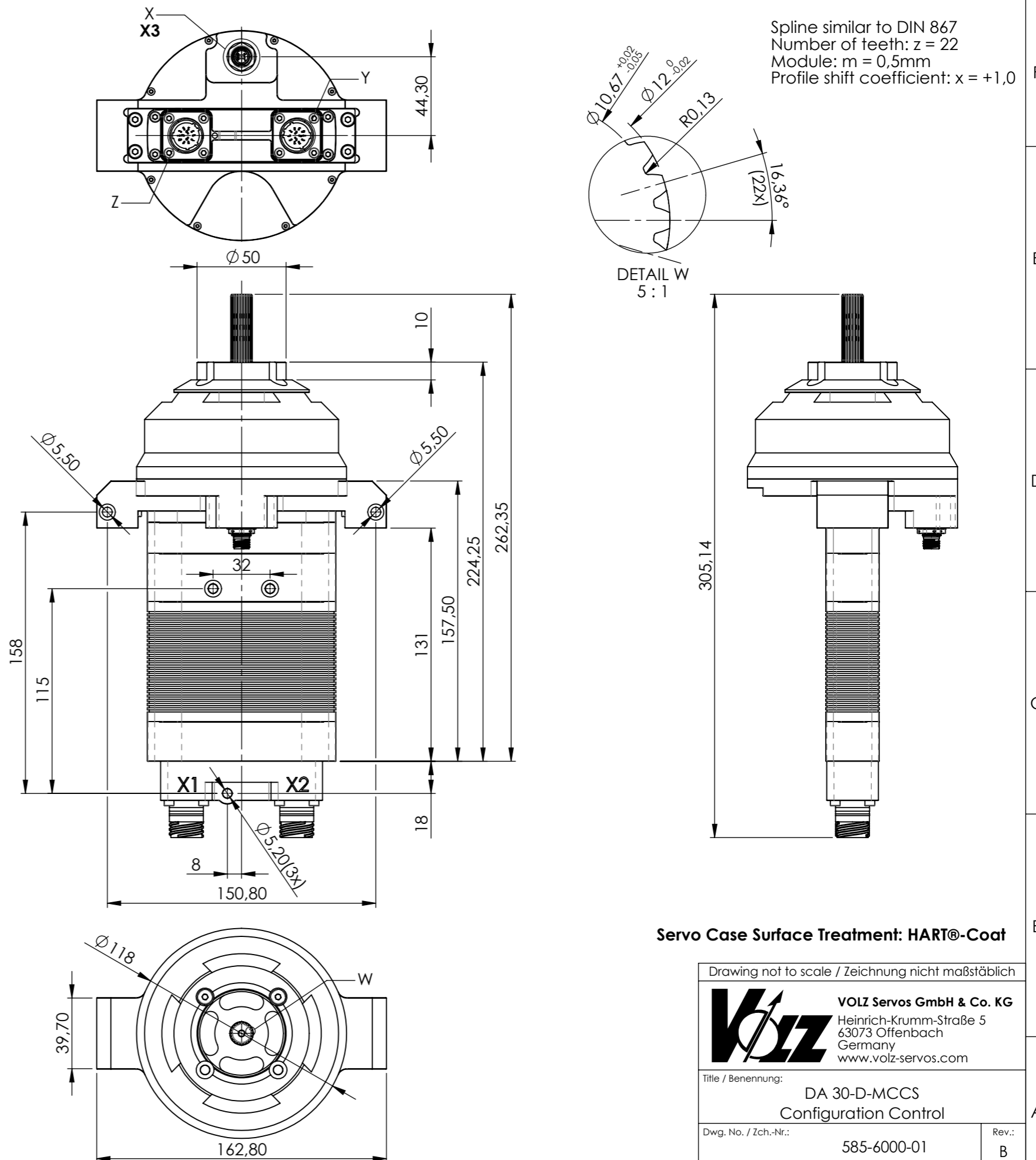
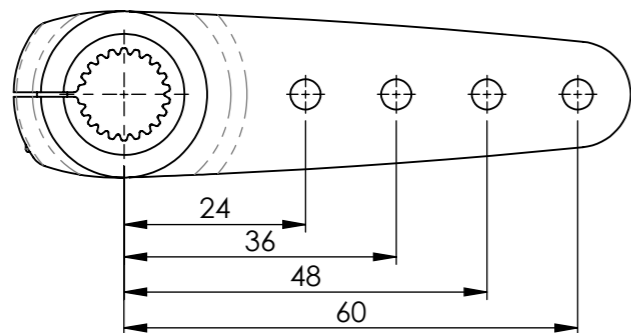
3) without clutch  
4) -20...+50°C, Δt=70°C

**Item No.:**

**DA 30-D.MCCS.30.5224-3.MIL13**

DA Digital Actuator  
30 30mm Class  
D Duplex (redundant) Version  
MCCS Magnetic Clutch, Coaxial Shaft with internal Sensor  
30 28-32V DC Power Supply  
5224 Internal Number  
3 RS 485 Command Interface  
MIL13 38999 13-pin MIL Connector

Standard Servo Arm  
1 : 1



Spline similar to DIN 867  
Number of teeth: z = 22  
Module: m = 0,5mm  
Profile shift coefficient: x = +1,0

**Servo Case Surface Treatment: HART®-Coat**

Drawing not to scale / Zeichnung nicht maßstäblich		
<b>VOLZ Servos GmbH &amp; Co. KG</b> Heinrich-Krumm-Straße 5 63073 Offenbach Germany <a href="http://www.volz-servos.com">www.volz-servos.com</a>		
Title / Benennung: DA 30-D-MCCS Configuration Control		
Dwg. No. / Zch.-Nr.:	585-6000-01	Rev.: B
Scale / Maßstab: 1:2.5	Sheet / Blatt: 1/2	A3

Content is subject to change without notice

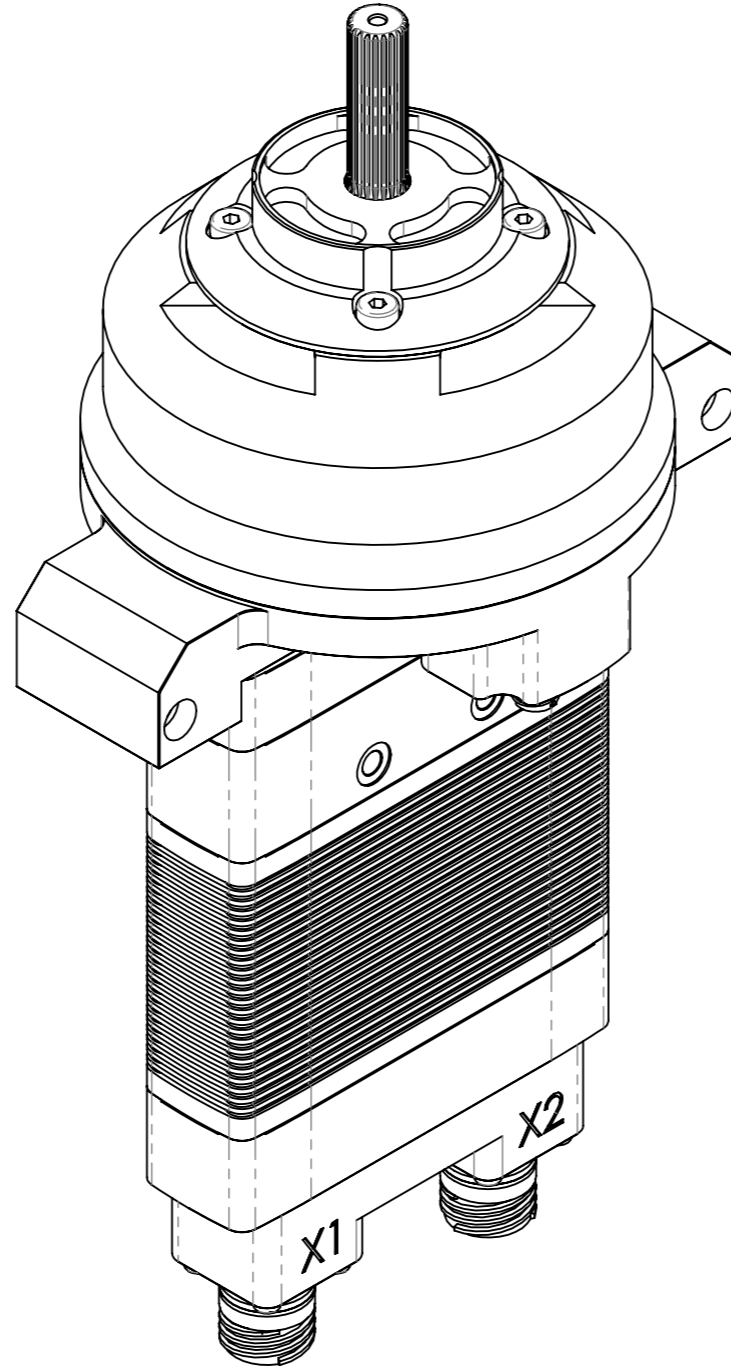
This drawing contains confidential and/or privileged information. Any unauthorized copying, disclosure or distribution of the material in this drawing is strictly forbidden.  
 Diese Zeichnung beinhaltet vertrauliche Informationen. Unerlaubte Vervielfältigung, Veröffentlichung oder Verbreitung dieser Informationen ist strengstens untersagt.

RS 485 Communication Parameters	
Baudrate 1	115200
No. of Data Bits	8
No. of Stop Bits	2
Parity	None
Data Frame	6 bytes
Max. Frame Rate	100 Frames per second
Signal Polarity	One = High , Zero = Low
Address Range	0x01 ... 0x1E

1) Other baudrate on request

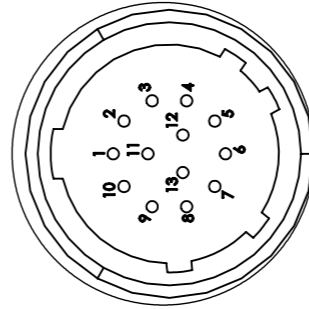
RS 485 Command / Response Frame	
Byte #	Description
1	Command / Response-Code
2	Actuator ID
3	Argument 1
4	Argument 2
5	CRC High Byte
6	CRC Low Byte

Harness Configuration		
connect		to
X3 - Pin 3	→	X1 - Pin 10
X3 - Pin 4	→	X1 - Pin 13



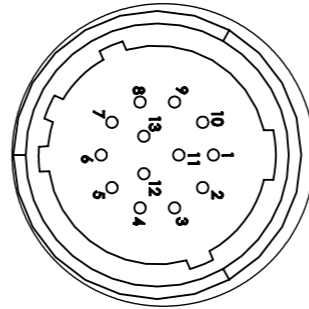
1 : 1.5

Amphenol  
38999-20WB35PN  
X1



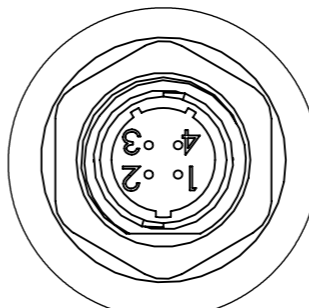
DETAIL Z  
2 : 1

Amphenol  
38999-20WB35PA  
X2



DETAIL Y  
2 : 1

Glenair MM  
801-009-07M6-4PA  
X3



DETAIL X  
2 : 1

Pin Assignment		
38999-20WB35PN (Detail Z) - X1		
1	NC	Do not connect
2	PWR_1.1	Power Supply Input 1.1
3	NC	Do not connect
4	COM1_1.1	COM1 A (RS 485)
5	COM1_1.2	COM1 B (RS 485)
6	CASE_GND_1	Case Ground
7	COMi_1.1	COMi A (RS 485) / Do not connect
8	COMi_1.2	COMi B (RS 485) / Do not connect
9	NC	Do not connect
10	PWR_1.2	Power Supply Input 1.2 + Clutch Sense
11	NC	Do not connect
12	GND_1.1	Return, Signal Ground 1.1
13	GND_1.2	Return, Signal Ground 1.2
38999-20WB35PA (Detail Y) - X2		
1	NC	Do not connect
2	PWR_2.1	Power Supply Input 2.1
3	NC	Do not connect
4	COM1_2.1	COM1 A (RS 485)
5	COM1_2.2	COM1 B (RS 485)
6	CASE_GND_2	Case Ground
7	COMi_2.1	COMi A (RS 485) / Do not connect
8	COMi_2.2	COMi B (RS 485) / Do not connect
9	NC	Do not connect
10	PWR_2.2	Power Supply Input 2.2 + Clutch Sense
11	NC	Do not connect
12	GND_2.1	Return, Signal Ground 2.1
13	GND_2.2	Return, Signal Ground 2.2
801-009-07M6-4PA (Detail X) - X3		
1	GND_3	Clutch Engage Return
2	PWR_3	Clutch Engage Power
3	CS	Clutch Sense
4	CS_GND	Clutch Sense Ground

Drawing not to scale / Zeichnung nicht maßstäblich


**VOLZ Servos GmbH & Co. KG**  
 Heinrich-Krumm-Straße 5  
 63073 Offenbach  
 Germany  
 www.volz-servos.com

Title / Benennung: DA 30-D-MCCS Configuration Control

Dwg. No. / Zch.-Nr.: 585-6000-01 Rev.: B

Scale / Maßstab: 1:2.5 Sheet / Blatt: 2/2 A3

Content is subject to change without notice