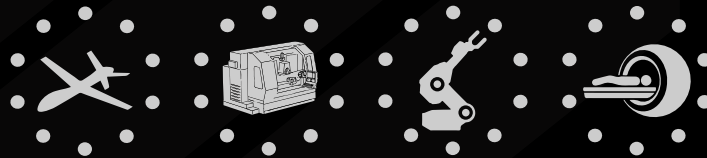


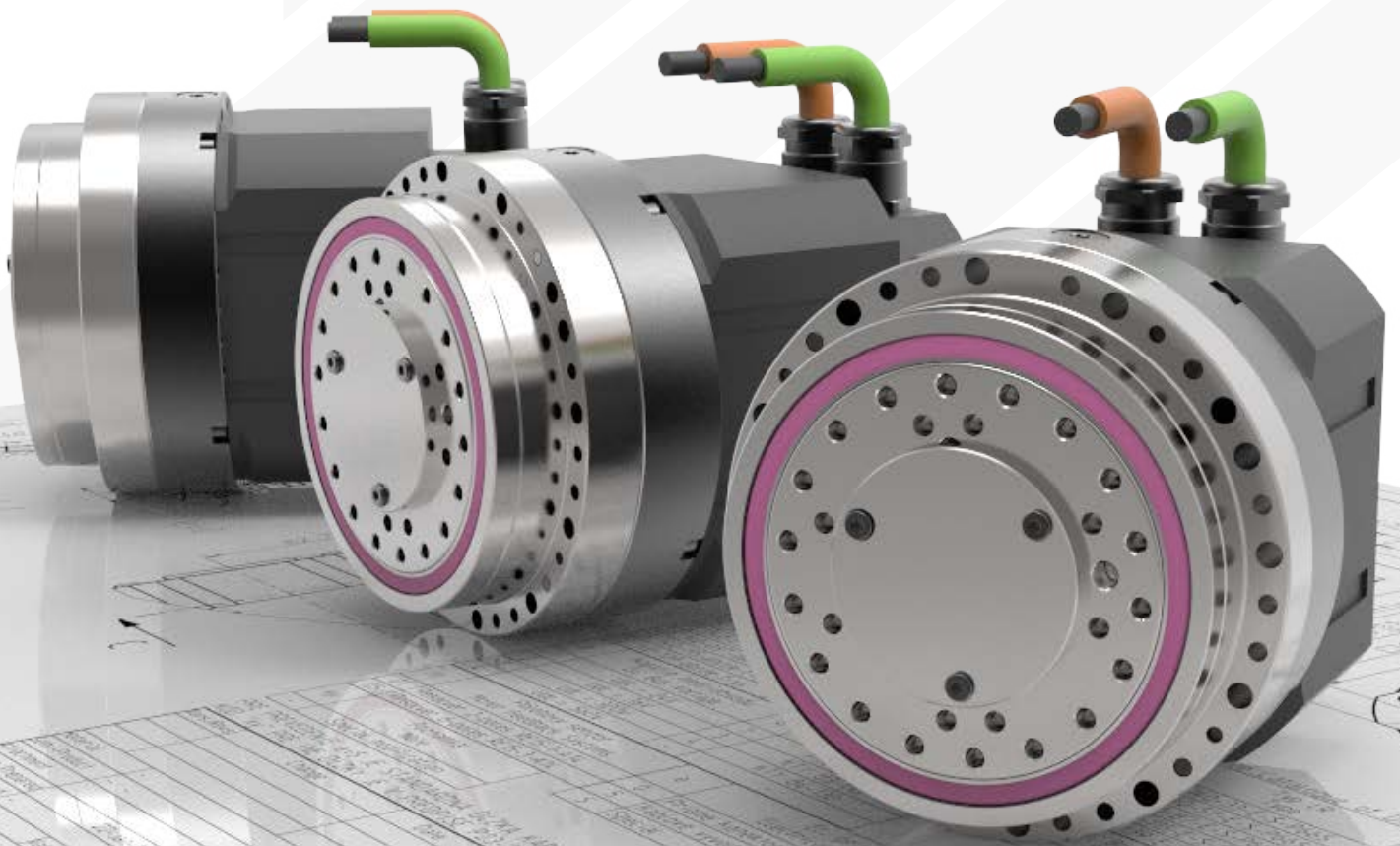


DriveSpin DS/DSH/DSM 140

The high precision **DriveSpin DS 140** actuators represent the new largest member of the DriveSpin product range, **meeting** even the most demanding **requirements** of customers from all industries. With their optimal **price/performance** ratio, they reliably provide parameters such as high accuracy and precision, high tilting and torsional stiffness, low weight, **compactness**, **low vibrations**, and a wide range of suitable technical solutions



- LOW LOST MOTION,
- LOW MOMENT OF INERTIA,
- HIGH REDUCTION RATIO,
- HIGH KINEMATIC ACCURACY,
- HIGH MOMENT OVERLOAD CAPACITY,
- HIGH CAPACITY OF THE INTEGRATED RADIAL-AXIAL OUTPUT BEARINGS,
- HIGH DYNAMIC PERFORMANCE.



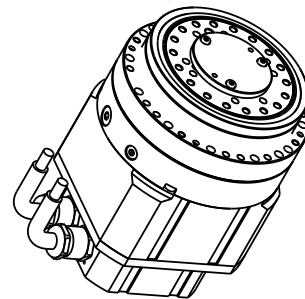
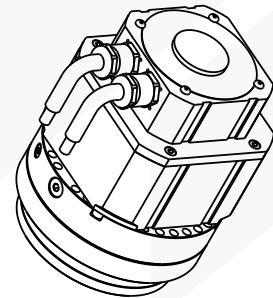
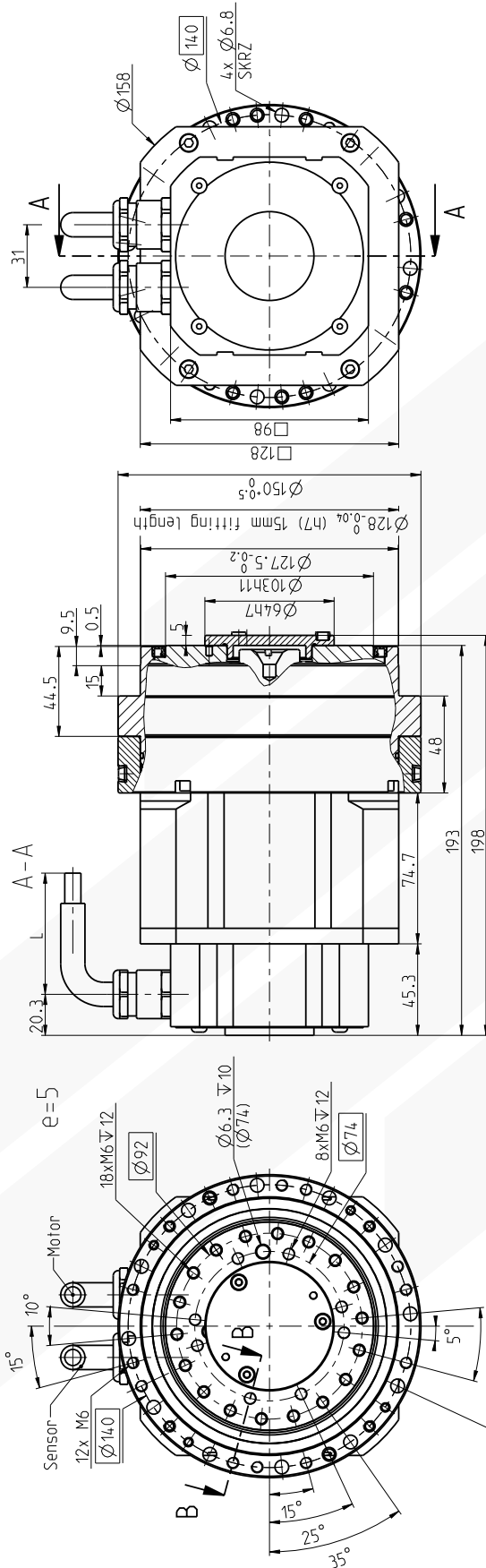
<p>DRIVE-rotate-F-NV</p>		<p>140</p>		<p>11</p>		<p>12</p>		<p>13</p>		<p>14</p>		<p>15</p>		<p>16</p>		<p>17</p>		<p>18</p>		<p>19</p>		<p>20</p>		<p>21</p>		<p>22</p>		<p>23</p>		<p>24</p>		<p>25</p>		<p>26</p>		<p>27</p>		<p>28</p>		<p>29</p>		<p>30</p>		<p>31</p>		<p>32</p>		<p>33</p>		<p>34</p>		<p>35</p>		<p>36</p>		<p>37</p>		<p>38</p>		<p>39</p>		<p>40</p>		<p>41</p>		<p>42</p>		<p>43</p>		<p>44</p>		<p>45</p>		<p>46</p>		<p>47</p>		<p>48</p>		<p>49</p>		<p>50</p>		<p>51</p>		<p>52</p>		<p>53</p>		<p>54</p>		<p>55</p>		<p>56</p>		<p>57</p>		<p>58</p>		<p>59</p>		<p>60</p>		<p>61</p>		<p>62</p>		<p>63</p>		<p>64</p>		<p>65</p>		<p>66</p>		<p>67</p>		<p>68</p>		<p>69</p>		<p>70</p>		<p>71</p>		<p>72</p>		<p>73</p>		<p>74</p>		<p>75</p>		<p>76</p>		<p>77</p>		<p>78</p>		<p>79</p>		<p>80</p>		<p>81</p>		<p>82</p>		<p>83</p>		<p>84</p>		<p>85</p>		<p>86</p>		<p>87</p>		<p>88</p>		<p>89</p>		<p>90</p>		<p>91</p>		<p>92</p>		<p>93</p>		<p>94</p>		<p>95</p>		<p>96</p>		<p>97</p>		<p>98</p>		<p>99</p>		<p>100</p>	
<p>DRIVE-rotate-F-NV</p>		<p>140</p>		<p>11</p>		<p>12</p>		<p>13</p>		<p>14</p>		<p>15</p>		<p>16</p>		<p>17</p>		<p>18</p>		<p>19</p>		<p>20</p>		<p>21</p>		<p>22</p>		<p>23</p>		<p>24</p>		<p>25</p>		<p>26</p>		<p>27</p>		<p>28</p>		<p>29</p>		<p>30</p>		<p>31</p>		<p>32</p>		<p>33</p>		<p>34</p>		<p>35</p>		<p>36</p>		<p>37</p>		<p>38</p>		<p>39</p>		<p>40</p>		<p>41</p>		<p>42</p>		<p>43</p>		<p>44</p>		<p>45</p>		<p>46</p>		<p>47</p>		<p>48</p>		<p>49</p>		<p>50</p>		<p>51</p>		<p>52</p>		<p>53</p>		<p>54</p>		<p>55</p>		<p>56</p>		<p>57</p>		<p>58</p>		<p>59</p>		<p>60</p>		<p>61</p>		<p>62</p>		<p>63</p>		<p>64</p>		<p>65</p>		<p>66</p>		<p>67</p>		<p>68</p>		<p>69</p>		<p>70</p>		<p>71</p>		<p>72</p>		<p>73</p>		<p>74</p>		<p>75</p>		<p>76</p>		<p>77</p>		<p>78</p>		<p>79</p>		<p>80</p>		<p>81</p>		<p>82</p>		<p>83</p>		<p>84</p>		<p>85</p>		<p>86</p>		<p>87</p>		<p>88</p>		<p>89</p>		<p>90</p>		<p>91</p>		<p>92</p>		<p>93</p>		<p>94</p>		<p>95</p>		<p>96</p>		<p>97</p>		<p>98</p>		<p>99</p>		<p>100</p>	
<p>DRIVE-rotate-F-NV</p>		<p>140</p>		<p>11</p>		<p>12</p>		<p>13</p>		<p>14</p>		<p>15</p>		<p>16</p>		<p>17</p>		<p>18</p>		<p>19</p>		<p>20</p>		<p>21</p>		<p>22</p>		<p>23</p>		<p>24</p>		<p>25</p>		<p>26</p>		<p>27</p>		<p>28</p>		<p>29</p>		<p>30</p>		<p>31</p>		<p>32</p>		<p>33</p>		<p>34</p>		<p>35</p>		<p>36</p>		<p>37</p>		<p>38</p>		<p>39</p>		<p>40</p>		<p>41</p>		<p>42</p>		<p>43</p>		<p>44</p>		<p>45</p>		<p>46</p>		<p>47</p>		<p>48</p>		<p>49</p>		<p>50</p>		<p>51</p>		<p>52</p>		<p>53</p>		<p>54</p>		<p>55</p>		<p>56</p>		<p>57</p>		<p>58</p>		<p>59</p>		<p>60</p>		<p>61</p>		<p>62</p>		<p>63</p>		<p>64</p>		<p>65</p>		<p>66</p>		<p>67</p>		<p>68</p>		<p>69</p>		<p>70</p>		<p>71</p>		<p>72</p>		<p>73</p>		<p>74</p>		<p>75</p>		<p>76</p>		<p>77</p>		<p>78</p>		<p>79</p>		<p>80</p>		<p>81</p>		<p>82</p>		<p>83</p>		<p>84</p>		<p>85</p>		<p>86</p>		<p>87</p>		<p>88</p>		<p>89</p>		<p>90</p>		<p>91</p>		<p>92</p>		<p>93</p>		<p>94</p>		<p>95</p>		<p>96</p>		<p>97</p>		<p>98</p>		<p>99</p>		<p>100</p>	
<p>DRIVE-rotate-F-NV</p>		<p>140</p>		<p>11</p>		<p>12</p>		<p>13</p>		<p>14</p>		<p>15</p>		<p>16</p>		<p>17</p>		<p>18</p>		<p>19</p>		<p>20</p>		<p>21</p>		<p>22</p>		<p>23</p>		<p>24</p>		<p>25</p>		<p>26</p>		<p>27</p>		<p>28</p>		<p>29</p>		<p>30</p>		<p>31</p>		<p>32</p>		<p>33</p>		<p>34</p>		<p>35</p>		<p>36</p>		<p>37</p>		<p>38</p>		<p>39</p>		<p>40</p>		<p>41</p>		<p>42</p>		<p>43</p>		<p>44</p>		<p>45</p>		<p>46</p>		<p>47</p>		<p>48</p>		<p>49</p>		<p>50</p>		<p>51</p>		<p>52</p>		<p>53</p>		<p>54</p>		<p>55</p>		<p>56</p>		<p>57</p>		<p>58</p>		<p>59</p>		<p>60</p>		<p>61</p>		<p>62</p>		<p>63</p>		<p>64</p>		<p>65</p>		<p>66</p>		<p>67</p>		<p>68</p>		<p>69</p>		<p>70</p>		<p>71</p>		<p>72</p>		<p>73</p>		<p>74</p>		<p>75</p>		<p>76</p>		<p>77</p>		<p>78</p>		<p>79</p>		<p>80</p>		<p>81</p>		<p>82</p>		<p>83</p>		<p>84</p>		<p>85</p>		<p>86</p>		<p>87</p>		<p>88</p>		<p>89</p>		<p>90</p>		<p>91</p>		<p>92</p>		<p>93</p>		<p>94</p>		<p>95</p>		<p>96</p>		<p>97</p>		<p>98</p>		<p>99</p>		<p>100</p>	
<p>DRIVE-rotate-F-NV</p>		<p>140</p>		<p>11</p>		<p>12</p>		<p>13</p>		<p>14</p>		<p>15</p>		<p>16</p>		<p>17</p>		<p>18</p>		<p>19</p>		<p>20</p>		<p>21</p>		<p>22</p>		<p>23</p>		<p>24</p>		<p>25</p>		<p>26</p>		<p>27</p>		<p>28</p>		<p>29</p>		<p>30</p>		<p>31</p>		<p>32</p>		<p>33</p>		<p>34</p>		<p>35</p>		<p>36</p>		<p>37</p>		<p>38</p>		<p>39</p>		<p>40</p>		<p>41</p>		<p>42</p>		<p>43</p>		<p>44</p>		<p>45</p>		<p>46</p>		<p>47</p>		<p>48</p>		<p>49</p>		<p>50</p>		<p>51</p>		<p>52</p>		<p>53</p>		<p>54</p>		<p>55</p>		<p>56</p>		<p>57</p>		<p>58</p>		<p>59</p>		<p>60</p>		<p>61</p>		<p>62</p>		<p>63</p>		<p>64</p>		<p>65</p>		<p>66</p>		<p>67</p>		<p>68</p>		<p>69</p>		<p>70</p>		<p>71</p>		<p>72</p>		<p>73</p>		<p>74</p>		<p>75</p>		<p>76</p>		<p>77</p>		<p>78</p>		<p>79</p>		<p>80</p>		<p>81</p>		<p>82</p>		<p>83</p>		<p>84</p>		<p>85</p>		<p>86</p>		<p>87</p>		<p>88</p>		<p>89</p>		<p>90</p>		<p>91</p>		<p>92</p>		<p>93</p>		<p>94</p>		<p>95</p>		<p>96</p>		<p>97</p>		<p>98</p>		<p>99</p>		<p>100</p>	



New
DS 140



DS 140



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
D	S	*	-	1	4	0	-	0	6	7	-	3	1	B	0	7	6	-	1	2	-	X	X

Type designation
DS - standard

Reduction ratio
033
069
115

Brake
0: No
B: Yes

Special modification
Terminal cable length

Actuator size

Wiring diagram

DC bus voltage

- 1: 24 VDC
- 2: 36 VDC
- 3: 320 VDC
- 4: 560 VDC
- S: Special upon request

Type of electrical connection

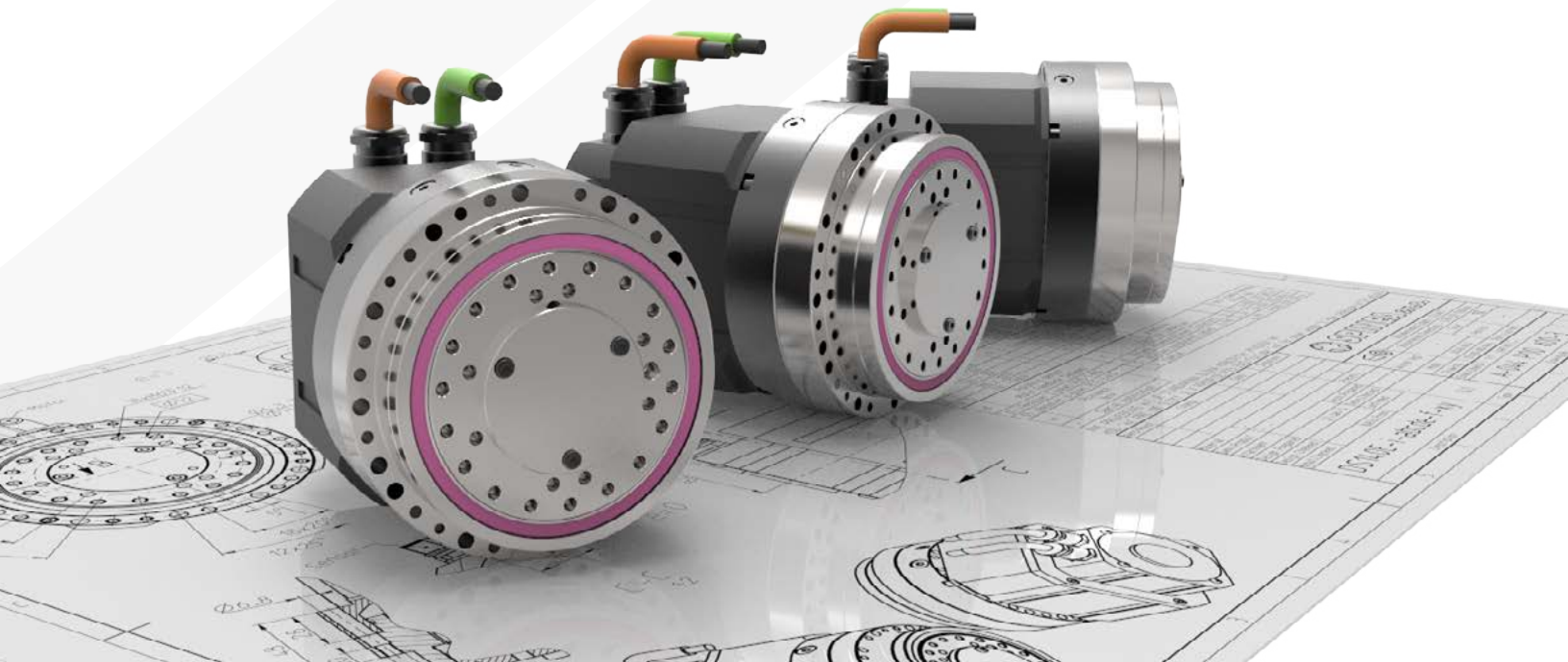
- 0: Straight connectors, perpendicular to the to centre line
- 4: Angled rotatable connectors
- 5: With terminal cable (L = 1 m)
- S: Special upon request

Temperature sensor

- 1: PTC 11-K13
- 3: KTY 83-110
- 4: KTY 84-130

Sensor type

Resolver, Endat®, HIPERFACE®



DS 140 MAIN PARAMETERS

DS Actuator			DS 140/DSH 140/DSM 140			
Reduction ratio	I		69, 115			
Rated output torque	T_r	Nm	268			
Acceleration/braking output torque	T_{max}	Nm	670			
Rated input speed of the reduction gear	n_r	min^{-1}	2000			
Maximum allowed input speed of the reduction gear	n_{max}	min^{-1}	3000/4500			
Tilting stiffness 1) 5)	M_t	Nm/arcmin	380			
Torsional stiffness 1) 6)	k_t	Nm/arcmin	62			
Maximum lost motion	LM	arcmin	<1.0			
Hysteresis	H	arcmin	<1.0			
Maximum tilting moment 2) 3)	$M_{c,max}$	Nm	1160			
Rated radial force 2)	F_{rR}	kN	11.5			
Maximum axial force 2) 4)	$F_{a,max}$	kN	17			
Allowed temperature range		°C	-10 °C to +40 °C			
Reduction gear maximum allowed temperature		°C	65 °C			
Servo inverter DC bus voltage	U_{dc}	V	24	36	320	560
Protection class			IP64 as standard			
Lubricant			Grease Castrol Optitemp TT1, PDO			
Paint			black RAL 9005			
Insulation class			F			

SUBJECT TO CHANGES WITHOUT PRIOR NOTICE

- 1) Mean statistical value. For further information, see Chapter 9, Tilting Stiffness and Torsional Stiffness.
- 2) Load at output speed 15 rpm.
- 3) Tilting moment $M_{c,max}$ value at $F_a=0$. If $F_a \neq 0$ see Chapter 9, Tilting Moment, of this document.
- 4) Axial force $F_{a,max}$ value at $M_c=0$. If $M_c \neq 0$ see Chapter 9, Tilting Moment, of this document.
- 5) The parameter depends on the high precision reduction gear model.
- 6) The parameter depends on the high precision reduction gear model, reduction ratio, and lost motion value.

Use your smartphone or tablet

