

Multiple-Joint Hinges GN 7237

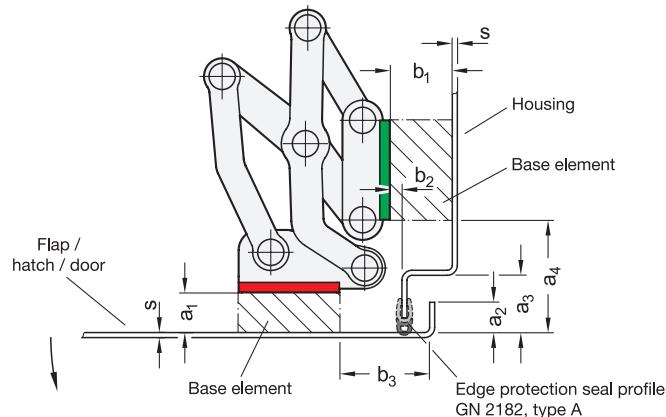
Application Examples / Design Variants for Sheet Metal Constructions

Four common sheet metal designs are shown below as examples of many possibilities. They show the installation of a type L hinge, which is also valid for type R. Multiple-joint hinges can be mounted to the housing by means of the assembly angle bracket with slotted holes that are either perpendicular or parallel to the hinge axis. This results in different pivoting characteristics. Recesses within the movement range of the hinge arms as well as enlarged base elements open up additional design possibilities.

The final functional test must be done by the user either with a CAD program or a test setup because various factors, such as the compression of the edge protection seal profiles, adjustment options, or part tolerances cannot be entirely taken into account.

Example 1 - Externally attached door with edge protection seal on the housing

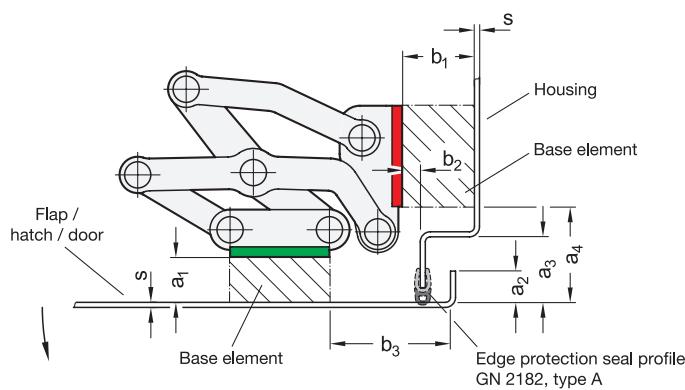
Assembly angle bracket with slotted holes perpendicular to the hinge axis on the housing



Dimensions in: millimeters - inches

| l₁ | a₁ | a₂ | a₃ | a₄ | b₁ | b₂ | b₃ | s |
|----------------------|----------------------|----------------------|-------------------------------|----------------------|---------------------------|----------------------|----------------------|--------------------|
| 40 1.57 | 14.5 0.57 | 10 0.39 | 16 - 35 0.63 - 1.38 | 43 1.69 | 14 - ∞ 0.55 - ∞ | 0 0 | 28.5 1.12 | 1.5 0.06 |
| 50 1.97 | 19 0.75 | 12 0.47 | 16 - 48 0.63 - 1.89 | 55 2.17 | 14 - ∞ 0.55 - ∞ | 0 0 | 38 1.50 | 2 0.08 |
| 60 2.36 | 28 1.10 | 20 0.79 | 22 - 70 0.87 - 2.76 | 77 3.03 | 17 - ∞ 0.67 - ∞ | 2 0.08 | 45 1.77 | 2 0.08 |

Assembly angle bracket with slotted holes parallel to the hinge axis on the housing

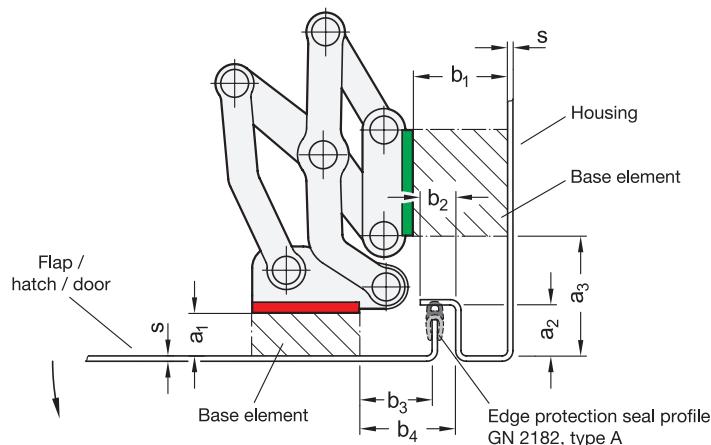


Dimensions in: millimeters - inches

| l₁ | a₁ | a₂ | a₃ | a₄ | b₁ | b₂ | b₃ | s |
|----------------------|----------------------|----------------------|-------------------------------|----------------------|---------------------------|----------------------|----------------------|------------------|
| 40 1.57 | - | - | - | - | - | - | - | - |
| 50 1.97 | 17 0.67 | 10 0.39 | 17 - 35 0.67 - 1.38 | 42 1.65 | 14 - ∞ 0.55 - ∞ | 0 0 | 50 1.97 | 2 0.08 |
| 60 2.36 | 25 0.98 | 14 0.55 | 25 - 46 0.98 - 1.81 | 53 2.09 | 19 - ∞ 0.75 - ∞ | 2 0.08 | 68 2.68 | 2 0.08 |

Example 2 - Embedded door with edge protection seal on the flap / hatch / door

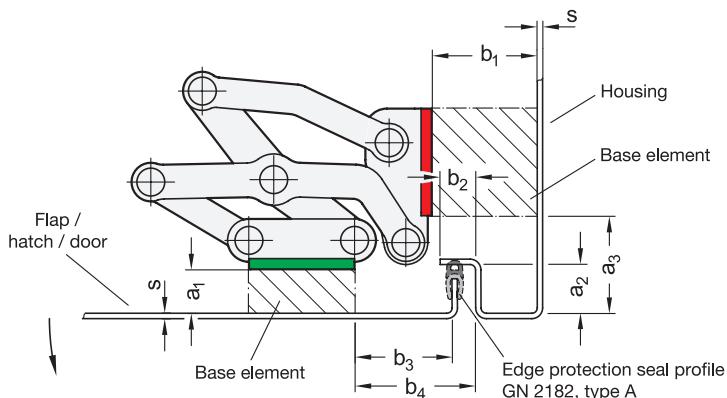
Assembly angle bracket with slotted holes perpendicular to the hinge axis on the housing



Dimensions in: millimeters - inches

| I₁ | a₁ | a₂ | a₃ | b₁ | b₂ | b₃ | b₄ | s |
|----------------------|----------------------|----------------------|----------------------|---------------------------|----------------------|----------------------|----------------------|------------------|
| 40 <i>1.57</i> | - | - | - | - | - | - | - | - |
| 50 <i>1.97</i> | 16 <i>0.63</i> | 19 <i>0.75</i> | 52 <i>2.05</i> | 34 - ∞ <i>1.34 - ∞</i> | 12 <i>0.47</i> | 27 <i>1.06</i> | 35 <i>1.38</i> | 2 <i>0.08</i> |
| 60 <i>2.36</i> | 22 <i>0.87</i> | 27 <i>1.06</i> | 71 <i>2.80</i> | 42 - ∞ <i>1.65 - ∞</i> | 14 <i>0.55</i> | 30 <i>1.18</i> | 38 <i>1.50</i> | 2 <i>0.08</i> |

Assembly angle bracket with slotted holes parallel to the hinge axis on the housing

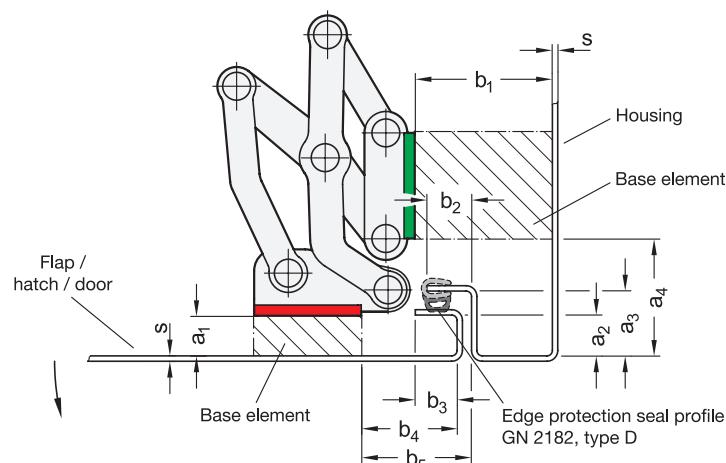


Dimensions in: millimeters - inches

| I₁ | a₁ | a₂ | a₃ | b₁ | b₂ | b₃ | b₄ | s |
|----------------------|----------------------|----------------------|----------------------|---------------------------|----------------------|----------------------|----------------------|------------------|
| 40 <i>1.57</i> | - | - | - | - | - | - | - | - |
| 50 <i>1.97</i> | 11 <i>0.43</i> | 16 <i>0.63</i> | 36 <i>1.42</i> | 32 - ∞ <i>1.26 - ∞</i> | 12 <i>0.47</i> | 40 <i>1.57</i> | 47 <i>1.85</i> | 2 <i>0.08</i> |
| 60 <i>2.36</i> | 16 <i>0.63</i> | 21 <i>0.83</i> | 44 <i>1.73</i> | 38 - ∞ <i>1.50 - ∞</i> | 14 <i>0.55</i> | 52 <i>2.05</i> | 60 <i>2.36</i> | 2 <i>0.08</i> |

Example 3 - Embedded door with edge protection seal on the housing

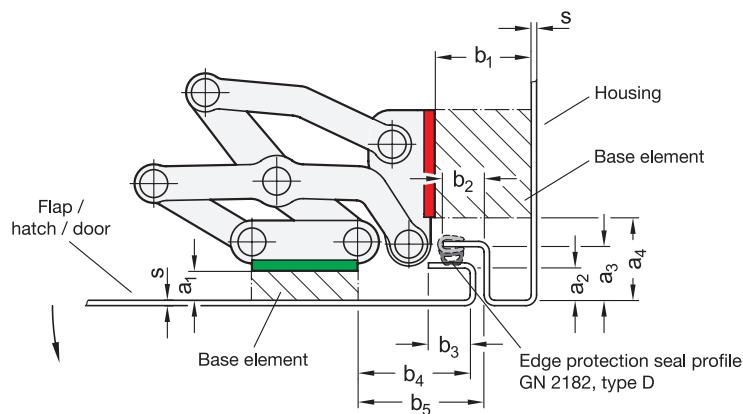
Assembly angle bracket with slotted holes perpendicular to the hinge axis on the housing



Dimensions in: millimeters - inches

| I₁ | a₁ | a₂ | a₃ | a₄ | b₁ | b₂ | b₃ | b₄ | b₅ | s |
|----------------------|----------------------|----------------------|----------------------|----------------------|--|----------------------|----------------------|----------------------|----------------------|------------------|
| 40 <i>1.57</i> | - | - | - | - | - | - | - | - | - | - |
| 50 <i>1.97</i> | 14 <i>0.55</i> | 14 <i>0.55</i> | 22 <i>0.87</i> | 50 <i>1.97</i> | 43 - ∞ <i>1.69 - ∞</i> | 15 <i>0.59</i> | 14 <i>0.55</i> | 38 <i>1.50</i> | 42 <i>1.65</i> | 2 <i>0.08</i> |
| 60 <i>2.36</i> | 21 <i>0.83</i> | 24 <i>0.94</i> | 32 <i>1.26</i> | 70 <i>2.76</i> | 52 - ∞ <i>2.05 - ∞</i> | 16 <i>0.63</i> | 16 <i>0.63</i> | 40 <i>1.57</i> | 44 <i>1.73</i> | 2 <i>0.08</i> |

Assembly angle bracket with slotted holes parallel to the hinge axis on the housing

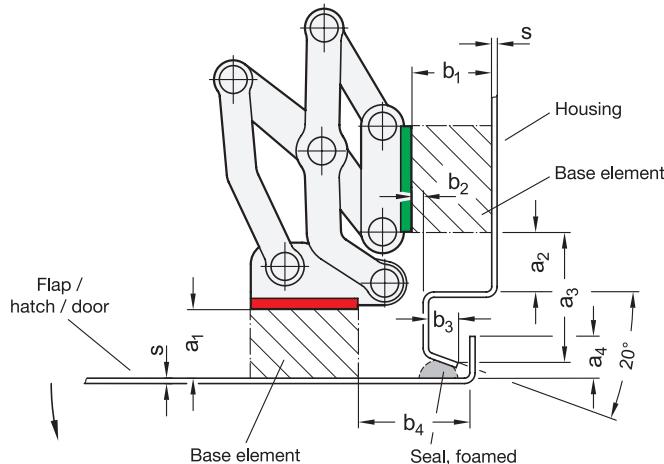


Dimensions in: millimeters - inches

| I₁ | a₁ | a₂ | a₃ | a₄ | b₁ | b₂ | b₃ | b₄ | b₅ | s |
|----------------------|----------------------|----------------------|----------------------|----------------------|--|----------------------|----------------------|----------------------|----------------------|------------------|
| 40 <i>1.57</i> | - | - | - | - | - | - | - | - | - | - |
| 50 <i>1.97</i> | 11 <i>0.43</i> | 12 <i>0.47</i> | 20 <i>0.79</i> | 36 <i>1.42</i> | 40 - ∞ <i>1.57 - ∞</i> | 14 <i>0.55</i> | 12 <i>0.47</i> | 47 <i>1.85</i> | 51 <i>2.01</i> | 2 <i>0.08</i> |
| 60 <i>2.36</i> | 16 <i>0.63</i> | 20 <i>0.79</i> | 28 <i>1.10</i> | 44 <i>1.73</i> | 50 - ∞ <i>1.97 - ∞</i> | 16 <i>0.63</i> | 16 <i>0.63</i> | 63 <i>2.48</i> | 67 <i>2.64</i> | 2 <i>0.08</i> |

Example 4 - Embedded door with foamed seal on the flap / hatch / door

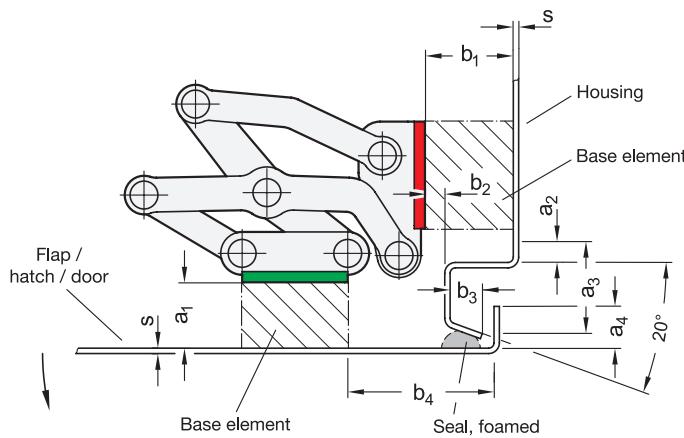
Assembly angle bracket with slotted holes perpendicular to the hinge axis on the housing



Dimensions in: millimeters - inches

| I₁ | a₁ | a₂ | a₃ | a₄ | b₁ | b₂ | b₃ | b₄ | s |
|----------------------|----------------------|-----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-------------|
| 40 1.57 | 22 0.87 | 5 - 25 0.20 - 0.98 | 46.9 1.85 | 10 0.39 | 14 - ∞ 0.55 - ∞ | 0 0 | 8 0.31 | 30 1.18 | 1.5 0.06 |
| 50 1.97 | 31 1.22 | 5 - 33 0.20 - 1.30 | 63.3 2.49 | 14 0.55 | 18 - ∞ 0.71 - ∞ | 2 0.08 | 12 0.47 | 43 1.69 | 2 0.08 |
| 60 2.36 | 40 1.57 | 5 - 47 0.20 - 1.85 | 85.1 3.35 | 22 0.87 | 19 - ∞ 0.75 - ∞ | 2 0.08 | 14 0.55 | 48 1.89 | 2 0.08 |

Assembly angle bracket with slotted holes parallel to the hinge axis on the housing



Dimensions in: millimeters - inches

| I₁ | a₁ | a₂ | a₃ | a₄ | b₁ | b₂ | b₃ | b₄ | s |
|----------------------|----------------------|-----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------|
| 40 1.57 | - | - | - | - | - | - | - | - | - |
| 50 1.97 | 26 1.02 | 5 - 21 0.20 - 0.83 | 47 1.85 | 12 0.47 | 20 - ∞ 0.79 - ∞ | 4 0.16 | 11 0.43 | 56 2.20 | 2 0.08 |
| 60 2.36 | 35 1.38 | 5 - 24 0.20 - 0.94 | 59 2.32 | 20 0.79 | 24 - ∞ 0.94 - ∞ | 5 0.20 | 14 0.55 | 73 2.87 | 2 0.08 |