Handgrip EC3500+
Multi-functional handgrip for electronic and hydraulic joysticks

The joystick is the central operating element in mobile working machines to move heavy loads sensitively and precisely by hand. Therefore a high level of user comfort and precision are necessary. With numerous variants, the new ergonomic handgrip EC3500+ from Bosch Rexroth is an optimal solution to be integrated in the cabins of excavators, wheeled loaders, telehandlers, backhoe loaders or forklift trucks to be a reliable partner in situations when a safe, effective and smooth machine operation is needed.

CUSTOMER BENEFITS
- Multi-functional handgrip with customizable location and orientation of buttons, roller and rocker
- Several shapes, color and etching of actuators available
- Easy and intuitive machine operation
- Fulfilling highest safety requirements
- Ergonomic and asymmetrical design for comfortable use
- Soft touch handgrip skin

FUNCTION AND BENEFITS

Multi-functional handgrip adaptable to customer needs
The handgrip EC3500+ of high quality is compatible with electronic or hydraulic joysticks and is suitable for a wide range of applications. It is also exactly adaptable to the customer’s specific requirements. It can be individually fitted with up to seven On/Off push buttons and/or with up to three proportional rollers. Also On/Off rockers with flexible defined features are available: with or without latching and with or without signal at neutral position. Furthermore there are several different shapes, colors and etching of the actuators available.
These individual configurations allow an easy and intuitive operation of the machine and also more comfort for the user, depending on the personal or local requirements.

Fulfilling highest safety requirements
Due to the joystick is a central operating element in mobile working machines, for this safety-critical sub-system a lot of requirements of the Machine Directive and other general plus regional standards have to be fulfilled. With the multi-functional handgrip series 3500+, the hydraulic and electronic handles from Bosch Rexroth achieve the highest...
Multi-functional handgrip for electronic and hydraulic joysticks

TECHNICAL DATA

<table>
<thead>
<tr>
<th>Handgrip EC3500+</th>
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</thead>
<tbody>
<tr>
<td>Working temperature range:</td>
<td>-40° to 60° C</td>
</tr>
<tr>
<td>Height:</td>
<td>175 mm</td>
</tr>
<tr>
<td>Width:</td>
<td>64 mm</td>
</tr>
<tr>
<td>Diameter (at hand):</td>
<td>33 mm</td>
</tr>
<tr>
<td>Weight (without plug):</td>
<td>0.330 kg</td>
</tr>
<tr>
<td>Diameter of the insulation of each conducting cable:</td>
<td>2.2 mm</td>
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<tr>
<td>Section of each conducting cable:</td>
<td>0.5 mm²</td>
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<tr>
<td>Max. permissible actuation torque at the grip:</td>
<td>80 Nm</td>
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<tr>
<td>Max. permissible force on the electrical functions:</td>
<td>50 N</td>
</tr>
</tbody>
</table>

Ergonomic and asymmetrical design for comfortable use
For a better operation of the machine, the handgrips of series EC3500+ have an asymmetrical design so that they can be used by right and left handers in an optimal way. It is each specially adapted to the use in right or left armrest, making it intuitive to operate. The EC3500+ also disposes over a soft touch skin that increases the comfort for the user with pleasantly smooth surface and preventing slippage. For a better adaptation to the individual customer needs, several shapes of the electric proportional controls as well as the shapes of the On/Off rockers are available.

Safety categories. With them, the electronic joystick THE5 complies to Safety Integrity Level (SIL) 2 according to IEC 62061 and EN 61508 as well as PLd according to ISO 13849. This certification is valid for all functions, including the On/Off buttons and proportional rollers.

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