DECLUTCHABLE MANUAL OVERRIDE
ITG-050

Installation and operating manual
Many thanks for purchasing our ITG Series Manual Override Gearbox! For safe and proper operation, please read this manual carefully before using it and save it for reference.

Important Notice: The contents in this manual are subject to change due to the quality improvement without individual notice.

General:

The ITG Series declutchable manual override offers a simple and reliable method of local manual operation of quarter turn valves fitted with pneumatic/hydraulic actuators; this may be required during commissioning set up, as emergency control on air failure, or as a local control in the event of controller malfunction. As such when the hand wheel is clutched in, the valve is under local manual control and the remote control is locked out.

All ITG Series declutchable manual override units are suitable for indoor and outdoor use and combine rugged construction, light weight and modular design to provide the most efficient and cost effective solution to a full range of manual override requirements. The self-locking worm gear design means safe and easy operation, positive manual positioning and extremely long life. The ITG Series declutchable manual override can be adapted to any quarter-turn actuator and may even be installed in the field on existing valves.

Specifications: ITG 050

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Output Torque</td>
<td>500 Nm</td>
</tr>
<tr>
<td>Mechanical Advantage</td>
<td>12</td>
</tr>
<tr>
<td>Mounting Flange – Actuator Side</td>
<td>F07 / F10</td>
</tr>
<tr>
<td>Weight</td>
<td>4.6 kg</td>
</tr>
<tr>
<td>Reduction Ratio</td>
<td>40:1</td>
</tr>
<tr>
<td>No. of Handwheel Turns</td>
<td>10</td>
</tr>
<tr>
<td>Mounting Flange – Valve Side</td>
<td>F07 / F10</td>
</tr>
<tr>
<td>Handwheel Diameter</td>
<td>300 mm</td>
</tr>
</tbody>
</table>
Assembly – Drive Bush:

ITG Series units come with a detachable, plain drive bush, which can be machined according to the required dimensions.

In order to remove the drive bush, remove the outer circlip and pull out the drive bush using a M6 bolt/screw in the threaded hole of the drive bush.

Plain drive bush

Drive bush machined for square

Drive bush machined for round
Assembly – Hand wheel:

Mount the hand wheel onto the shaft and secure it using the lock pin provided.
Operation:

1. To engage MANUAL operation, first pull out the spring loaded clutch knob, then rotate the clutch lever clockwise until engagement takes place. Slight movement of the hand-wheel may be required to align the work and worm wheel when shifting the lever to manual mode.

2. Rotate the hand-wheel to effect manual operation by,
   CLOCKWISE to CLOSE
   ANTI-CLOCKWISE to OPEN
3. To resume to AUTO operation, pull out the spring loaded clutch knob, then rotate the clutch lever anti-clockwise.

**Note:** When under manual control, the valve remains locked in the last set position.

**Stroke adjustment:**

The ITG gearbox is equipped with two stroke adjustment STOPPER bolts. These must be set for accurate valve positioning and to avoid damage to the actuator or valve spindle during manual operation. The limit stops on actuators are redundant in combination with ITG gearboxes. For stroke angle less than 80° please consult our engineering department.
Dimensions:

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>ØD</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>ØJ</th>
<th>ØK</th>
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</thead>
<tbody>
<tr>
<td>300</td>
<td>193</td>
<td>115</td>
<td>300</td>
<td>213</td>
<td>87</td>
<td>65</td>
<td>57</td>
<td>35</td>
<td>55</td>
<td>102</td>
</tr>
</tbody>
</table>

Drive Bush | Bore Size | Mounting Flange
---|---|---
øL | M | ØO | P | Q | Actuator Side | Valve Side
35 | 32 | 20 | 6 | 23.5 | F07/F10 | F07/F10