Application:

This mechanical load cell has been specially designed to control one safety trip point on low and medium capacity overhead cranes.

Operating principle:

The load cell operates by the movement of metal within its elastic limits. Deviation of the lifting wire rope around the load cell produces a force proportional to the load applied. The load cell operates a microswitch, to give an "all-or-nothing" signal.

Technical specification:

Installation: directly on the dead end wire rope
Load cell: 1 integrated microswitch
2 contacts: 1 N.O. (open) 1 N.C. (closed)
Trip point power: max. 220 VAC.
Amperage of trip point: A type: 4 A
B type: 25 mA
Connections: A type: 4 conductor electrical cable
B type: 2 conductor electrical cable
Length of connecting cable: 6' (2 m) with plug
Tare adjustment: fine thread screw
Resolution: 20 lbs. (10 daN)
Hysteresis: 500 lbs. (250 daN)
Temperature range: -20 to 175° F (-30 to 80° C)
Protection class: I.P 55
Material of load cell: aluminium alloy
Finish: anodized
Maintenance: none required other than keeping it clean.

Components

A - Connecting cable plug.
B - Washer.
C - Axle pin.
D - Locking ring.
E - Load cell body.
F - Trip point Tare screw.
G - Locking nut.
H - Central fixing bracket.
I - Safety washer.
J - M6/M8 screw.
K - Fixing bracket plate.
L - Rubber compression pad.
M - Lifting wire rope.
N - Switch fixing screw

Identification:

<table>
<thead>
<tr>
<th>Code</th>
<th>Wire rope Ø in.(mm)</th>
<th>Capacity lbs.(daN)</th>
<th>Length</th>
<th>Width</th>
<th>Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>HF 32/1/A</td>
<td>0420600</td>
<td>3/16 - 5/8 (5-16)</td>
<td>500-6000 (250-3000)</td>
<td>2 3/4 (70)</td>
<td>5 7/8 (150)</td>
</tr>
<tr>
<td>HF 32/2/A</td>
<td>0420601</td>
<td>11/16 – 1 (17-26)</td>
<td>600-12000 (300-6000)</td>
<td>3 7/8 (98)</td>
<td>7 7/8 (200)</td>
</tr>
<tr>
<td>HF 32/3/A</td>
<td>0420602</td>
<td>1 1/16 – 1 3/8 (27-36)</td>
<td>2000-24000 (1000-12000)</td>
<td>5 7/16 (138)</td>
<td>11 (280)</td>
</tr>
<tr>
<td>HF 32/1/B</td>
<td>0420603</td>
<td>3/16 - 5/8 (5-16)</td>
<td>100-6000 (50-3000)</td>
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The B type has to be used with a monitor HF 85 in order to amplify the microswitch signal.
The B type with monitor HF 85 is recommended when the crane dynamics effects should be absorbed.