flexibility when passing over the one or more sheaves **18** to provide low bending stresses, meet belt life requirements and have smooth operation, while being sufficiently strong to be capable of meeting strength requirements for suspending and/or driving the elevator car **12**. The jacket **34** could be any suitable material, including a single material, multiple materials, two or more layers using the same or dissimilar materials, and/or a film. In one arrangement, the jacket **26** could be a polymer, such as an elastomer, applied to the cords **32** using, for example, an extrusion or a mold wheel process. In another arrangement, the jacket **34** could be a woven fabric that engages and/or integrates the cords **32**. As an additional arrangement, the jacket **34** could be one or more of the previously mentioned alternatives in combination.

The jacket **34** can substantially retain the cords **32** therein. The phrase substantially retain means that the jacket **34** has sufficient engagement with the cords **32** to transfer torque from the machine **50** through the jacket **34** to the cords **32** to drive movement of the elevator car **12**. The jacket **34** could completely envelop the cords **32** (such as shown in figure 7), substantially envelop the cords **32**, or at least partially envelop the cords **32**.

Referring to figure 9, a fault detection unit **52** is electrically connected to a plurality of cords **32** of the belt **16**. The fault detection unit **52** is connected to a terminated portion of the belt **16**, for example, at an end **24a** and/or **24b** of the belt **16** located at the support **26** (shown in figure 5). The cords **32** are electrically connected to the fault detection unit **52** in a Wheatstone bridge configuration. In one embodiment, as shown in figure 9, each cord **32a**, **32b**, **32c** and **32d** of a four-cord **32** arrangement forms each leg of the Wheatstone bridge. Cord ends **32A** and **32B** are connected are connected via input leads **54**, while cord ends **32C** and **32D** are connected via input leads **54**. Other ends of cords **32a** and **32b**, referred to as **32A'** and **32B'** are connected via output lead **56**, while ends of cords **32c** and **32d**, referred to as **32C'** and **32D'** are also connected by an output lead **56**. The resulting bridge circuit **58** is shown in figure 10.

Each leg **60** of the bridge circuit **58** is an LCR circuit allowing for measurement of complex impedance of the legs **60** or alternatively resistance of the legs **60**. An excitation voltage is applied across the bridge circuit **58** via the input leads **54** from the fault

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