

TS959 and TS970 Series 2

Digital Control Systems for Industrial Doors

- Suitable for both Digital and Mechanical limit drive units
- Limit switch setting from ground level (Digital limits only)
- Programmable Door Maintenance Indicator
- Plug connections between control panel and drive unit
- Load monitoring in the open direction (Sectional doors with Digital limits only)
- Digital display of door status and/or fault diagnostic
- Operations cycle counter (non re-settable)
- Stores last six fault codes
- Slim line enclosure IP65
- Certified to BS EN 12453



Features

For use with the Guthrie Douglas range of drives with digital limits (DES) or mechanical limits (NES) the TS959 and TS970 allow for easy and rapid setting of limit switch positions and door parameters from ground level, digital limits only. With digital limits both the TS959 and TS970 have the facility to monitor the load on sectional doors in the open direction. This feature prevents objects or a person being accidentally lifted by the door as well as preventing people intentionally riding on a door when opening. As with the other Guthrie Douglas controls the TS959 and TS970 include as standard a programmable door maintenance indicator. This allows the installer to set a maintenance interval to suit the door and its application of between 1000 to 99000 operations completion of which the control will tell the customer that the door needs servicing.

Installation and Commissioning

The drive motor and limits are connected to the TS959 & TS970 controls by a single plug in protected inter-connecting cable (supplied separately in lengths of 3, 5, 7, 9 or 13m). The spiral cable for connecting the TS control to slack-wire,

pedestrian door switches and safety edge (TS970 only) is also supplied with plug-in connections.

Unnecessary call-backs are minimised as the user can read back the doors status using the digital display, which is visible through the enclosure lid. The panel stores the last 6 fault codes thus simplifying the fault finding procedure on those difficult intermittent problems. With digital limits the TS970 will carry out some door adjustments automatically for instance re-adjustment of the close limit to allow for cable stretch and/or for changes in finished floor level.

Enclosure Enhancements

The purpose built enclosure with a fully protected printed-circuit board if hard wired to the mains supply meets the IP65 class for dust and moisture protection. It is sized to permit fitting to

the "I" beam often found to the side of where the door is fitted. The enclosure allows for top and bottom cable entry and is supplied with stand-off feet to allow cables to be run at the back of the panel. The TS959 & TS970 have the provision for installing a key switch, to allow use by a key holder; the TS970 has provision for a selector switch for a part opening position and/or latching stop button if required. There is a provision for a mains isolator switch to be fitted at the bottom of the panel.

Meeting the Standards

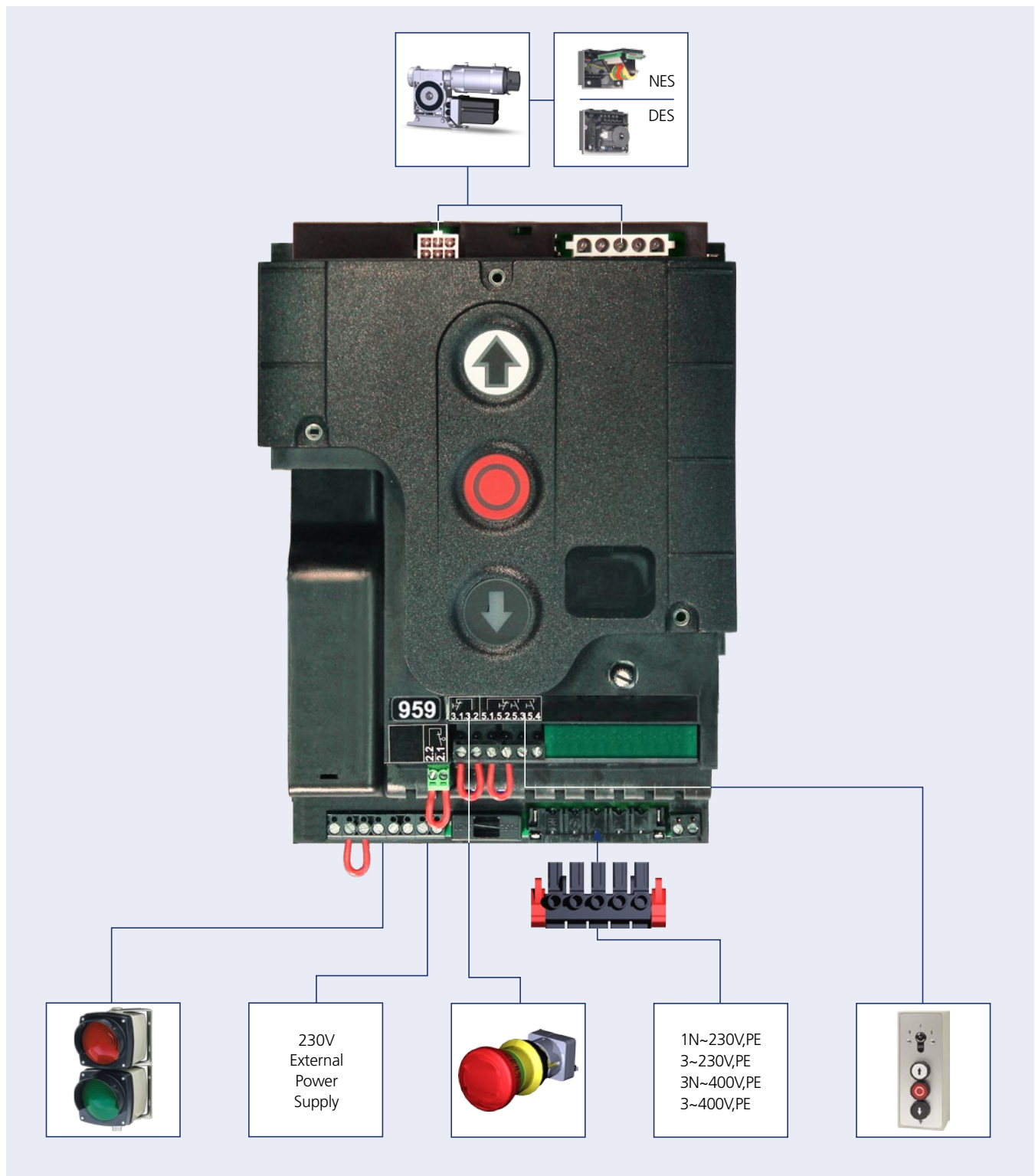
The TS959 and TS970 meet the requirements of the BS EN 12453 and the introduction of a programmable maintenance indicator only further enhances the safety regime for the user. According to whether the intended users are trained or not and whether the door is in a public area or not, determines the degree of safety required.

Door User	Control Unit	Obligatory Accessories	Function
Trained user only Not in a public area	TS959 In sight of door	N/A	Impulse Open Hold to run close
Trained user in a public area	TS959 In sight of door	Key Switch on/off	Impulse Open Hold to run close
Trained user in a public area	TS970 In sight of door	Safety Edge	Impulse Open Impulse Closed
General Public	TS970 In/out of sight of door	Safety Edge and Photo Beam	Impulse Open Impulse Closed

Note: Doors that can lift a person require additional safety devices

The features of the TS959 control include:

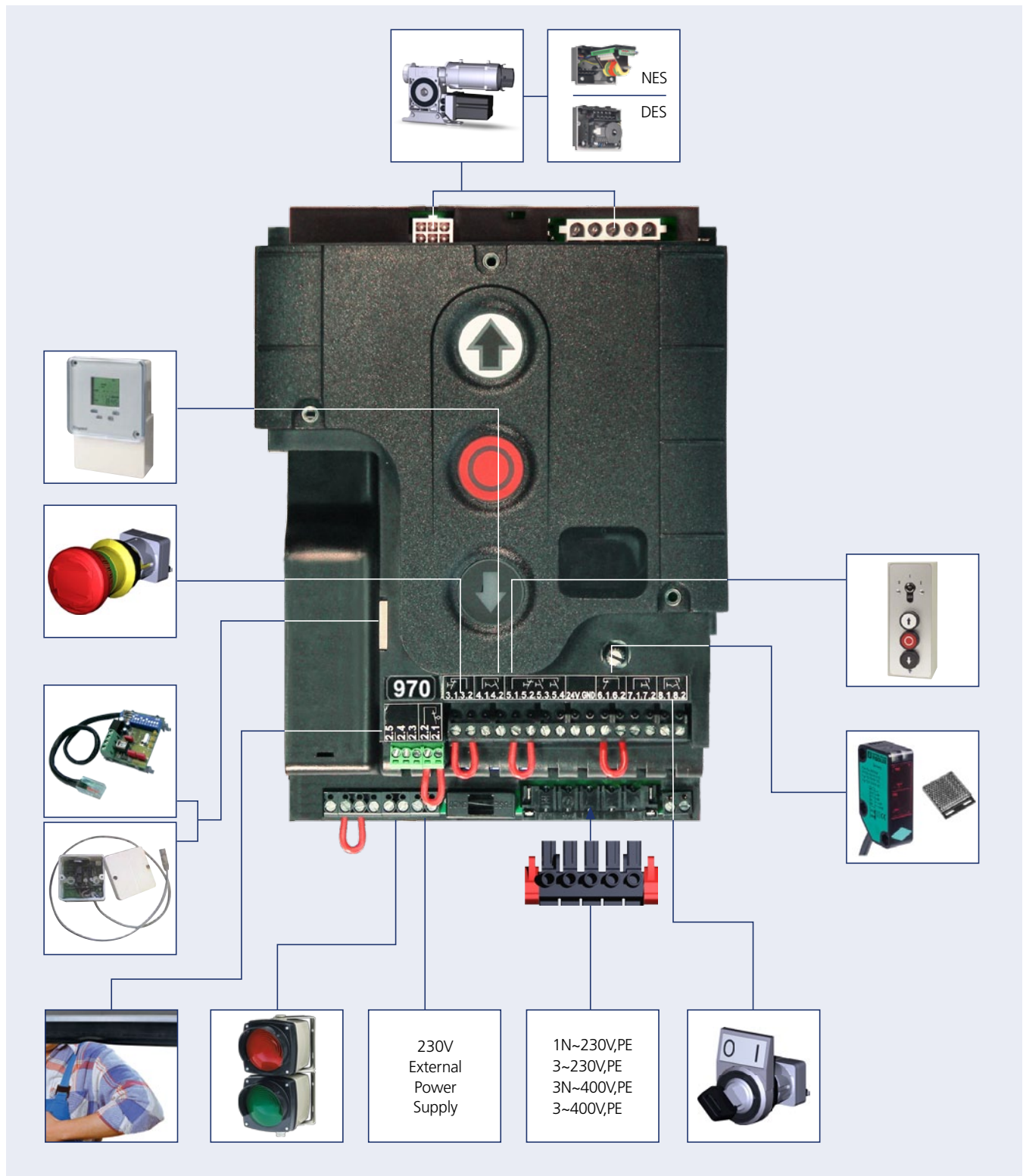
- Drive direction can be reversed via push buttons.
- Limit switch and door parameter setting from ground level (digital limits only)
- Programmable Door Maintenance Indicator, which can be selected to either display only or display and change the door operation when service, is due.
- Load monitoring in the open direction (Sectional doors with digital limits only)
- Digital display of door status and/or fault diagnostic
- Operations cycle counter (non re-settable)
- Three selectable door functions
- Connection for a plug-in spiral cable for cable break or slack wire switches or pass door switch on sectional doors.
- Dynamic runtime monitoring adjustable up to 90 sec (mechanical limits only)
- Last 6 faults memorised



Control Panel TS970 Series 2

The TS970 control incorporates all the features of the TS959, plus:

- Programmable Door Maintenance Indicator with three response modes including the option for the service due function to be overridden the once to allow a further 500 cycles.
- Automatic adjustment for changes in floor level and/or cable stretch (digital limits only)
- 1 to 240 second variable timed closing
- Function to prevent unintentional activation of the photo beam, for example by the safety edge spiral cable allowing the photo beam to be mounted as close to the door or guide as possible.
- Automatic recognition of the safety edge type (contact, pressure switch or Fraba optical type)
- Selectable Part open facility
- Option for a plug in loop detector or radio receiver.



Accessories for use with Control Panels



GE23029/030
Protected cable (3m)

GE23029/050
Protected cable (5m)

GE23029/070
Protected cable (7m)

GE23029/090
Protected cable (9m)

GE23029/130
Protected cable (13m)

Mechanical limit cables available



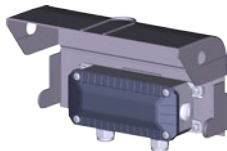
KSR4P*
Fraba safety edge kit (<6m)

KSR4P/10
Fraba safety edge kit (<10m)

GF10045
Edge profile, roller shutters

GF10050
Bump stop for roller shutters

GF10085
Edge profile, sectional doors



GF10095
Bump stop for sectional doors

GF40594 Mounting rail 3m

GF417478* Splash Cover for S/Edge Junction Box/Slave unit



VR/R2E
Receiver 433MHz, 2 Channel rolling code

VR/TF2E*
Key-fob transmitter 2 Channel 433MHz



VR/TF4E*
Key-fob transmitter 4 Channel

VR/60733*
Vehicle mounted transmitter, 1 Channel 433MHz



VR/60734
Vehicle mounted transmitter, 2 Channel 433MHz

VR/K2E*
Wireless Keypad channel



GE3513202*
3 Phase mains supply lead

GE3513206
Single phase mains supply lead, for Ranger, Safedrive® Mini and Safedrive® Fi

GE3513214
Single phase mains supply lead for Safedrive®



GE46390*
Pull switch, for wall or ceiling mounting with 2.5m chain

ELS 145FH
Shoot bolt interlock switch



GE305132
Mains Isolator

GE304616*
Panel mounted key switch



GE34615*
Panel mounted latching stop button

GE34679
Panel mounted selector switch

GE417317
Cover plate for TS push buttons

JAPZ4-IR
Remote Key Switch with 3 push buttons



CALOOKKIT*
Plug in loop detector c/w latching stop button for TS970 Series 2



IFALCONXL
Industrial motion sensor (3.5m high)

IFALCON*
Industrial motion sensor (<7m high)



ICONDOR
Motion and presence sensor (<6m high)

IREMOTE*
Remote control setting

IMILAN
Industrial presence sensor (<6m high)



PES/9R
Polarised reflex photo-beam (<9m range)

PES/30T*
Through-beam sender and receiver (<30m range)



GE301955*
Traffic indicator assembly, red and green

*ILLUSTRATED