

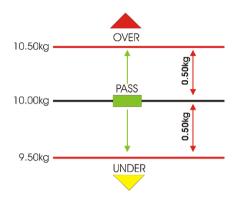
APPLICATION NOTE

Application

An **X320 (K376 firmware)** mounted on a bench scale is to be used for a check weighing application. It is configured as a $30 \text{kg} \times 0.01 \text{kg}$ scale.

There are three grading zones available (Under, Pass and Over).





The target weight of the bag's contents is 10kg.

- If the contents is under weight by 0.50kg or more the amber "Under" LED on the front panel and the amber traffic light will illuminate.
- If the contents is over weight by 0.50kg or more the red "Over" LED on the front panel and the red traffic light will illuminate.
- Lastly, if the contents is within the range of 9.50kg and 10.50kg the green "Pass" LED and the green traffic light will illuminate.

The Over and Under weight limits of the check weighing function can be configured in two ways. It can either be configured in the setup menu or by the operator by holding down the function key if it is mapped to check weigh.

Components



X320-K376-XX X320 Battery/ DC/AC powered



XG-3040-100 XG Scale base -100kg



M3012
Hardware Stand
for pole
mounting



A10018
Insert for pole mounting



Traffic light
Third Party
Supplied

X300-701-200 1



APPLICATION NOTE

Configuration

To enter the setup mode, hold down the **Power** and **Select** key for a few seconds.

```
FULL SETUP
```

```
BUILD_:
            setup as required
 OPTION: setup as required
CAL:
             setup as required
SPEC
       SAFE.PC:
                   as required
                   as required
       FULL.PC:
                   as required
       KEY.LOC:
       KEY.FN:
                   if operator target value access is required then set to
                   CHECK.W
                   If auto tare feature is needed set to _A.TARE_
                   If else set as required for other available functions.
                   Refer the manual for list.
                   as required
      AUT.OFF:
       B.LIGHT:
                   as required
       REM.FN:
                   as required
       REM.CHR:
                   as required
       BAT.VLT:
                   as required
       W.D.LOCK: as required
      _E.UNITS:
                   as required
       QCK.CAL:
                   as required
       BUZZER:
                   as required
       LB-OZ:
                   as required
        PWR.FN:
                   as required
SERIAL:
            setup as required
CHECK.W
                   ON (must be on for LED's and outputs to work)
      ENABLE:
      SRC:
                   _NET_ is recommended if there is a container involved. Can
                   also be set to _GROSS_ or _DISP_ depending on requirement
       OVER:
                   0010.50 kg (can be altered by operator if _KEY.FN:CHECK.W)
                   0009.50 kg (can be altered by operator if _KEY.FN:CHECK.W)
       UNDER:
CLOC:
             setup as required
TEST
FACTRY
_END_
```

Outputs

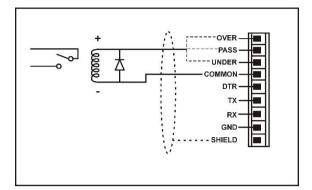
- The output drivers for the indicator are high side drive and are capable of driving up to 400mA each.
- This configuration allows for the direct connection of the indicator outputs to most types of PLC.
- The voltage applied to the indicator's positive power supply terminal (+) appears on the output lines when the outputs are active.
- To drive external loads (eg. relays); connect the output line directly to the positive side of the relay coil. Connect the negative side of the relay coil to COMMON.
- It is recommended that fly-back diodes or transient suppressors be fitted across inductive loads such as relay coils to limit switching noise.

X300-701-200 2

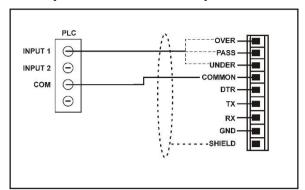


APPLICATION NOTE

Outputs to Drive Relays



Outputs to Drive PLC Inputs



Operation

1. Setup





In this example a X320 indicator is used to check the weight of bags.

Where containers are involved, a SRC setting of NET is recommended. Refer FULL SETUP above.

2. Auto Tare





In setup _SPEC > _KEY.FN should be set to _A.TARE_

Press and hold function key to set the tare threshold value.

Place an empty container on the scale. The indicator will automatically tare if the empty container is over the Auto Tare threshold weight (eg. more than 0.15kg)

3. Filling and check weigh







a. Fill the bag while it is on the scale. If the weight is less than 9.50kg (eg 9.35kg as shown above), the "Under" LED illuminates on the front panel. b. If the weight is between 9.50kg and 10.50kg (eg 10.08kg as shown above), the "Pass" LED illuminates on the front panel.

c. If the weight is over 10.50kg (eg 11.21kg as shown above), the "Over" LED illuminates on the front panel.

For more information refer to the X300-652 X320 Reference Manual.

X300-701-200 3