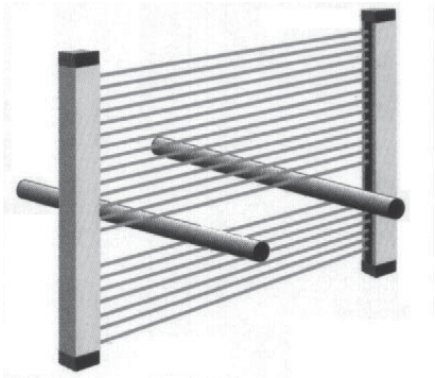


Beam blanking using BPU

Information Sheet



Features

- One BPU programs any number of curtains
- Fixed and floating blanking
- One or two beam floating blanking

Beam blanking using a BPU is an important function of the GS140 Series that allows selected areas of the sensing field to be disabled. This is particularly useful for those applications where, for example, a work-piece is obstructing the curtain or possibly moving up and down within the curtain. All GS140 Series curtains are capable of being blanked with fixed and floating blanking options available for increased guarding flexibility. When in beam blanked mode, the curtain checks for any change in the programmed condition and will initiate a stop signal to the machine if an allowable obstruction is removed.

Types of blanking

Fixed blanking-

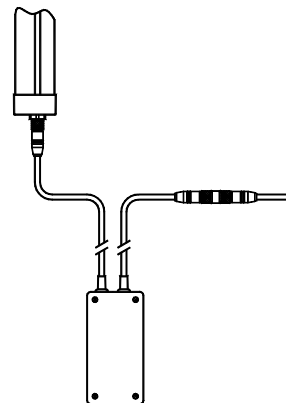
Fixed blanking is achieved by a 'learn' technique. The system learns which beams are obstructed at the time of programming and the curtain outputs will then only be operational if these beams are obstructed and all other beams are clear. If the programmed obstruction is removed, the light curtain will generate a stop signal.

Floating blanking-

Floating blanking can be selected so that either one or two beam obstructions can be ignored. Basically, an obstruction can move or 'float' within the detection zone without generating a stop signal provided that the obstruction does not obscure more than the specified number of beams. If 'Floating 1' is selected, any single beam in the curtain can be blocked (or not) without causing the outputs to be de-energised. If 'Floating 2' is selected, any two beam obstructions can be ignored. The beams do not have to be contiguous. Fixed and floating blanking can be used in combination. This allows for a number of curtain discrepancies so that, for example, a fixed blanked object may move slightly during machine operation.

Programming unit

In the GS140 Series, beam blanking is achieved by means of a BPU programming unit. Programming is simply carried out by connecting the BPU, selecting the blanking function and then removing the programming unit. This single cost-effective unit has the advantage that only one unit is needed in order to program any number of light curtains.



Important: Beam blanking increases the size of object which is guaranteed to be detected by the light curtain (i.e. it decreases the resolution). The new detection capability, in its worse case, should always be taken into account during the risk assessment process when considering if beam blanking is appropriate and should always be the figure used when calculating safety distances according to EN999.

Tapeswitch Ltd.
Unit 38 Drumhead Road
Chorley North Industrial Park, Chorley
Lancs PR6 7BX England
Tel: +44 1257 249777
Fax: +44 1257 246600
e-mail: info@tapeswitch.co.uk
web: www.tapeswitch.co.uk

Tapeswitch GmbH
Tapeswitch Corporation
Tapeswitch Japan
Tapeswitch Canada
Tel: +49 5101 14490
Tel: +1 631630 0442
Tel: +11 8135676 5421
Tel: +1 519681 2980

Fax: +49 5101 14499
Fax: +1 631630 0454
Fax: +11 8135676 5422
Fax: +1 519685 9318