Product sensors for Linx printers

On any production line it is vital that on-line printers are correctly and consistently triggered to print a high quality message in the right place at the right time. Poorly placed or partly missing codes may result in products being rejected.

Photocells and other sensors are simple and reliable devices that can be used with a printer to achieve this consistency, thereby maximising coding efficiency.

The Linx range of product sensors supports coding of products of different sizes, colours and materials:

• Photocells and inductive switches to sense a wide range of products including very small objects and those with highly reflective surfaces

• Specialised sensors to detect registration marks and products that contrast poorly with the background.

All Linx sensors are robust, with full screening, EMC compliance, a high degree of environmental protection (minimum IP65) and short-circuit proof transistor outputs.

Wide range of sensors to detect different types of product

Tested with Linx printers – meet E.U. and U.S. EMC standards
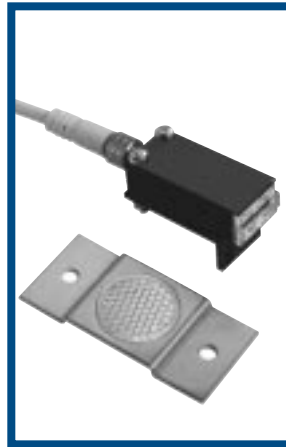
Robust designs – protected to IP65 or above

Fitted connectors – ready to install

Mounting brackets for convenient installation

LINX

THINKING ALONG YOUR LINES

Product sensors

Sensor type	Reflection light beam scanner	Retro-reflective light beam switch with polarisation filter	Inductive proximity switch
Operating principle	Infra-red light reflected by the product	Product breaks light beam	Electromagnetic induction
Application	General-purpose	Shiny, reflective products such as glass bottles and foil trays	Ferrous and non-ferrous metals, for example cans
Sensing range	20 – 170 mm (adjustable)	100 – 1000 mm	3 – 9 mm
Material	M18 chromium plated brass body and nuts	Rectangular re-inforced plastic body	M18 chromium plated brass body and nuts
Environmental protection rating	IP65	IP67	IP67
Dimensions (mm)	56 x 18 (dia)	38 x 18 x 13	60 x 18 (dia)
Ambient temperature range (operational)	-10°C to 60°C		
Speed of response	1 msec	0.5 msec	2 msec
Cable length	5 m	5 m	5 m
Compatibility with mounting brackets	FA099050 FA62035	Bracket supplied for production line mounting	FA099050 FA62035
Other information	Plastic lens	Plastic lens Supplied with reflector Light / dark switching selected by wiring	

Compatibility with Linx printers			
4200, 4800, 4900, 6000R, 6200R, 6800	FA61062	FA61050	FA61100
6000S, 6200S	FA61061	FA61049	Customer special

Regulatory compliance only for operation in combination with a Linx 4900 or 6800 printer	
Electro-magnetic compatibility	EMC Directive 89/336/EEC and Machinery Directive 98/37/EC as amended by 92/31/EEC and 93/68/EEC European EMC Standards EN50081-1: 1992 EMC Emissions and EN61000-6-2: 1999 EMC Immunity
Safety	Low Voltage Directive 72/23/EEC as amended by 93/68/EEC European Safety Standards EN60204: 1997 Electrical Safety - Machinery and EN292-1: 1991 and EN292-2: 1991 Safety of Machinery

| Sensor type	Background suppression sensor	Colour registration mark scanner	Through beam fibre-optic sensor	Reflective fibre-optic sensor
Operating principle	Infra red light reflected off a product in the area of focus	Visible light reflected off small areas of the product	Product breaks a visible light beam carried by fibre-optic cables from a control unit	Product reflects visible light carried by fibre-optic cables from a control unit
Application	Where the background is likely to interfere with triggering, for example ridged conveyors or products that contrast poorly with the background	Detects small registration marks printed onto continuous rolls of packaging film and labels, including very small marks moving at high speed. Detects black and colour marks	For use in inaccessible places and to scan small items or items with only a small gap between them	For use in inaccessible places and to scan small items
Sensing range	90 – 105 mm	9 – 12 mm (adjustable)	Up to 250 mm (adjustable)	Up to 50 mm (adjustable)
Material	M18 Nickel plated brass body and nuts	Rectangular diecast zinc enclosure	Control unit: Rectangular polycarbonate housing Fibre-optic cables: Polyethylene coated plastic fibres	
Environmental protection rating	IP67	IP67	IP67	IP67
Dimensions (mm)	93 x 18 (dia)	66 x 42 x 15	Control unit: 39 x 31 x 13 Fibre-optic end fittings: M4	Control unit: 39 x 31 x 13 Fibre-optic end fitting: M6
Ambient temperature range (operational)	-10°C to 60°C			
Speed of response	0.2 msec	0.3 msec	0.5 msec	
Cable length	5 m	5 m	Electrical cable: 5 m Fibre-optic cables: 2 m (can be cut on site)	
Compatibility with mounting brackets	FA099050	Use of through holes in the body or the bracket supplied gives a variety of mounting options	DIN-rail mount or surface mount using the bracket supplied	
Other information	Plastic lens	Light / dark switching selected by wiring	Minimum bend radius of fibre-optic cables: 9mm	

Compatibility with Linx printers

	Background suppression sensor	Colour registration mark scanner	Through beam fibre-optic sensor	Reflective fibre-optic sensor
4200, 4800, 4900 6000R, 6200R, 6800	FA61079	FA61077	FA63031 + FA536001	FA63031 + FA536002
6000S, 6200S	FA61080	FA61078	FA63030 + FA536001	FA63030 + FA536002

Regulatory compliance only for operation in combination with a Linx 4900 or 6800 printer

Electro-magnetic compatibility	EMC Directive 89/336/EEC and Machinery Directive 98/37/EC as amended by 92/31/EEC and 93/68/EEC European EMC Standards EN50081-1: 1992 EMC Emissions and EN61000-6-2: 1999 EMC Immunity
Safety	Low Voltage Directive 73/23/EEC as amended by 93/68/EEC European Safety Standards EN60204: 1997 Electrical Safety - Machinery and EN292-1: 1991 and EN292-2: 1991 Safety of Machinery

Mounting brackets
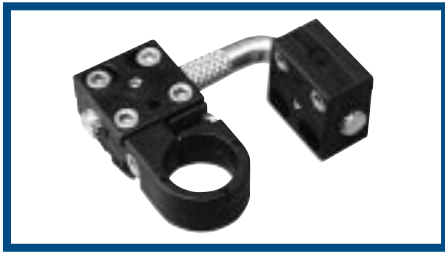
Sensor mounting bracket FA099050

To mount M18 bodied sensors onto the printhead bracket or other suitable surface on the production line. Can be rotated in two different planes to get the best orientation of the sensor.

### Sensor cover tube mounting bracket FA62035

Simple acetal bracket that clamps directly onto the Linx printhead cover tube and allows M18 bodied sensors to be positioned immediately adjacent to the printhead.
Dimensions (mm): 149 x 58 x 13

Sensor accessories

Splitter box FA63012

The Splitter box allows the output from one shaft encoder (and one product sensor) to interface with up to four printers. Accepts any Linx encoder fitted with a D-type connector. Suitable for 6200S and 4800 printers. For full technical data, please refer to the 'Shaft Encoders for Linx printers' datasheet, MP42042.
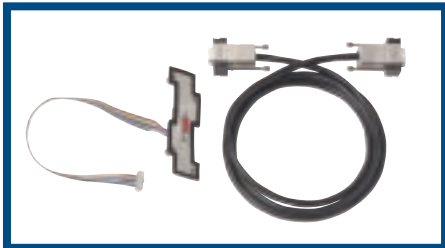
Product Detector / Encoder Multiplexer FA63025
PDEM Cableform FA63040

These parts are used in various combinations so that up to four printers (4900 and 6800) can be connected to one product detector and/or one shaft encoder, or up to eight printers can be connected to one product detector. FA63025 is applicable to the 6800 only and enables a connection to a secondary sensor in addition to the shaft encoder.

Adaptor and extension cables

A selection of cables is available for converting one type of connector to another (adaptor) or to extend the overall cable length between printer and encoder or other device (extension).

Linx printers	Cable type	Cable length (m)	Encoder connector	Printer connector	Part number
6000S and 6200S	Extension	2.0	Military (male)	Military (female)	FA63036
	Adaptor	0.1	IP67 D-type (male)	Military (female)	FA16030
All other printers	Extension	2.0	IP67 D-type (male)	IP67 D-type (female)	FA63034
	Adaptor	0.1	Military (male)	IP67 D-type (female)	FA63035

For more information please contact the Linx Sales Office on:
Tel: 01480 302130 Fax: 01480 302116 Email: uksales@linx.co.uk