

Fibre Optic Photoswitches — continued

Miniature – F1 Series

SEEKA-TAKEX



- Multi-turn sensitivity adjustment with a 3-LED indication for accurate setting
- Light-on/dark-on operation is switch selectable
- Optional 50ms output pulse extension ensures fast moving targets give an output
- Self-diagnostic failsafe output to indicate a dirty fibre head or trapped cable

H = 36, W = 12, L = 52, Cable L = 2m

Visible red light source fibre optic amplifier designed to be used in conjunction with Seeka-Takex® fibres shown below. The sensor can be mounted either directly onto DIN rail or separately by means of the bracket supplied.

Supply voltage	12 to 24V dc ± 10%
Current consumption	35mA
Output	NPN or PNP open collector 100mA (30V dc) with short circuit protection
Response time	0.5ms
Light source	Red LED (660nm)
Temperature range	-25°C to +55°C

Mftrs. List No. F1R-NPN = 279-651, F1R-PNP = 279-663

SEN108X

Output	Order Code	Price Each		
		1+	5+	10+
NPN	279-651			
PNP	279-663			

Touch-to-Teach – F10 Series

SEEKA-TAKEX



- 'Touch-to-Teach' facility for easy setting
- Self-diagnostic failsafe output indicates a dirty fibre head or trapped cable
- Light-on/dark-on operation is switch selectable
- Optional 50ms output pulse extension ensures fast moving targets give an output
- ABS housing with polycarbonate cover, sealing to IP66

Fibre optic amplifier designed to be used in conjunction with the Seeka-Takex® fibres shown on page 1390. The sensor can be mounted either directly onto DIN rail or separately by means of the bracket supplied.

H = 34, W = 13, D = 68, Cable L = 2m

Touch-To-Teach facility

The amplifier is set by simply pressing the set button when the target is present in front of the fibre head. Once set the sensor will continue to reliably detect the target each time it is presented in front of the sensing head. This teaching method can also be implemented remotely from a push button or PLC.

Supply voltage	12 to 24V dc ± 10%	External input	Contact or solid state
Current consumption	50mA max.	Response time	0.5ms
Output	NPN or PNP open collector 50mA (40V dc) with short circuit protection	Light source	Red LED (680nm)
		Temperature range	-25°C to +55°C

Mftrs. List No. F10R-NPN = 532-575, F10R-PNP = 532-587

SEN126X

Output	Order Code	Price Each		
		1+	5+	10+
NPN	532-575			
PNP	532-587			

Fibre Leads

SEEKA-TAKEX



279-699 Thread = M6 1.0, L = 15 279-705 Thread = M4 0.7, L = 15



678-934 Thread = M3 0.5, L = 11, Nose = 1.48 dia., L = 70
678-946 Thread = M3 0.5, L = 10, Nose = 1.00 dia., L = 70



678-958 Thread = M6 0.75, L = 10, Nose = 2.5 dia., L = 3
(Note: Fibre L = 2m, armoured protection = 1m starting from fibre head)



678-960 Body dia. = 14, L = 50
Outer thread = M6 0.75, L = 9.5



678-971 Inner thread = M4 0.7 (suitable for 279-705)

Range of fibre leads for use with SEEKA-Takex® amplifiers and similar. All fibres are supplied 2 metres long and can be cut to length using the miniature guillotine supplied.

Sensing distance when used with:-

	F1 Amplifier	F2 Amplifier	F10 Amplifier
279-699 (standard fibre – diffuse)	40mm	35mm	90mm
279-705 (standard fibre – separate)	100mm	80mm	230mm
678-934 (flex nose fibre – diffuse)	10mm	9mm	20mm
678-946 (flex nose fibre – separate)	35mm	30mm	50mm
678-958 (diffuse fibre with protection)	40mm	35mm	90mm
678-960 (small object detection)	0.3mm resolution at 10mm range		
678-971 (90 degree lens to be used with 279-705)	300mm	240mm	690mm

Minimum bending radius (fibre)

279-699, 279-705, 678-958 = 30mm,

678-934, 678-946, 678-960 = 15mm

Minimum bending radius (nose)

678-934, 678-946 = 10mm

Minimum object resolution (best case)

279-699, 678-958 = 0.03mm, 678-934 = 0.05mm,

678-946 = 0.5mm, 279-705 = 1.0mm

Temperature range

-30°C to 70°C

Fibre length

2 metres cuttable to length

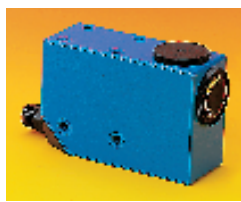
Mftrs. List No. FR5BC = 279-699, FT5BC = 279-705, FRS8BC = 678-934, FTS8BC = 678-946, FR7BC + FA6SP10 = 678-958, FX8401BC + FA200 = 678-960, FA12-F5 = 678-971.

SEN216X

	Order Code	Price Each		
		1+	5+	10+
Standard fibre – diffuse	279-699			
Standard fibre – separate	279-705			
Flex nose fibre – diffuse	678-934			
Flex nose fibre – separate	678-946			
Diffuse fibre with protection	678-958			
Coax fibre with focusing head	678-960			
90° lens attachment for 279-705	678-971			

Contrast Scanners

KT2G and KT5G



KT2G: H (body) = 49, W = 15, D (body) = 41.5
KT5G: H (body) = 53, W = 30, D (body) = 80



- Solid state light source (green LED)
- Dark-on/Light-on selectable
- Insensitive to stray light
- Diecast metal housing with IP67 protection
- Plug connection is rotatable by 90°
- KT5G light output is direction selectable (interchange lens with threaded cap)
- KT2G has adjustable sensitivity suitable for simple dark/light contrast
- KT5G has adjustable switching threshold and can distinguish up to 30 grey scale steps from black to white
- KT5G has high speed operation up to 10KHz

	KT2G	KT5G
Supply voltage	10 – 30V dc	10 – 30V dc
Scanning distance	13.5 ± 1.5mm	10 ± 3mm
Light spot	2mm dia.	1.2 4.2mm
Light source	LED, green	LED, green
Connection	M12 5-pin plug	M12 4-pin plug
Output	PNP or NPN (wire selectable)	PNP
Switching frequency	1500Hz	10KHz
Light/dark switching	Wire selectable	Switch selectable
Order Code	723-4545	723-4557

FOR SUITABLE M12 SENSOR CONNECTORS SEE PAGE 1394

SEN338

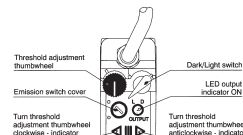
Mftrs. List No.	Order Code	Price Each		
		1+	5+	10+
KT2G-2B3711	723-4545			
KT5G-2P1111	723-4557			

TL80

DATA LOGIC



H = 63, W = 30, D = 87
Shielded cable L = 3m



Control Panel

Connections:
White = NPN/PNP output Brown = 10 to 30V dc
Grey = analogue output Blue = 0V

- 10 to 30V dc supply
- Dark-on/light-on switching selection
- Selectable red/green LED light source
- Industry standard IP67 metal housing
- Selectable NPN/PNP output
- Simple contrast threshold adjustment
- Output status indicator LED
- 3 metre cable length

High performance contrast scanner for all print registration and positioning applications.