



A complete line of sensors

Helping make sense of the world around us

IDEC Corporation, a leader in automation and control devices for over sixty years, has recently expanded its existing sensor line to include IDEC-DATASENSOR products. DATASENSOR, Italy's largest photoelectric sensing device manufacturer, has an international reputation for providing innovative and reliable products for more than three decades.

Now IDEC offers a full line of high-quality photoelectric and specialty sensing devices, including the most popular

18mm tubular sensors in the world and a slot sensor that has the distinction of being the fastest in the market. With the ability to detect everything from colors and textures to liquids, high-speed label detection and revolutionary optical sensing mechanisms, your machines will be faster, more precise and more accurate. Whatever your application, IDEC can provide the best answer to your sensing and measurement needs!

M18 Tubular Series-S51



- Complete optical functions
- Flat plastic housing
- Double mounting capability
- Cable or M12 connection
- PNP or NPN output available
- Standard 3-wire connection configuration
- Selectable Light and Dark output
- Models without trimmer

Applications

- Universal applications
- Packaging industries
- Bottling industries
- Paper industries
- High operating distance for Through-Beam function

50x50 Compact Series-S60



- Complete optical functions
- High mounting compatibility with all the most popular 50x50mm compact format sensors
- Standard M12 connection
- Independent NO/NC contact
- High-performance polarized retro-reflective
- Clear object detection models
- Rotating M12 connector

Applications

- Universal applications
- Packaging industries
- Bottling industries
- Paper industries
- High operating distances
- Transparent object detection

50x50 High Performance Series-S62



- High resolution with LED or Laser Emission
- Background Suppression ranging from 3cm to 2m and Black/White difference less than 4%
- Up to 6 turns adjustable potentiometer BGS models
- Polarized retro-reflective up to 20m laser emission
- Sturdy ABS housing 50x50mm standard
- NPN or PNP independent NO-NC configuration
- Rotating M12 connector

Applications

- Packaging industries
- Paper industries with LED and Laser emission
- Mechanical precision with Laser emission
- Semiconductor industries with Laser emission
- Wood Industries with Laser emission

Miniature Photoelectric-SA1E



- Six sensing methods
- 1m proximity, 15cm with narrow beam
- 4m polarized retro-reflective
- 15m through-beam
- Standard 3 wire output configuration
- Cable and M8 connector types available
- NPN output, PNP output, Light On, Dark On option
- Long sensing ranges, high-speed response
- CE marked, UL Listed

Applications

- Universal applications
- Packaging industries
- Bottling industries
- Paper industries
- High operating distance for Through-Beam function

Laser Distance Sensors-S80



- Laser Time-of-flight distance measurement
- High distance measurement up to 7m
- Serial RS485 output
- Analog output 4-20mA + Double output setting
- Scalable measurement range
- Digital display and sturdy metal housing
- High digital resolution up to < 1mm
- Rotating M12 4-pole connector

Applications

- Distance measurement
- Volume measurement
- Wood industries
- Material level control
- Warehouses

Slot/Fork Sensor-SR21



- Highest operating frequency up to 25kHz
- Red / Green LED emission
- Long spot to optimize gap detection between labels
- Pushbutton setting
- Light feedback for high temperature stability
- PNP / NPN output available
- Rotating M8 connector

Applications

- Labelling and Packaging industries
- Tape color-marks counting
- Gap detection
- Semitransparent label detection

Color Detection-S65



- C color and C+I (color & intensity) detection algorithm
- White LED emission and Integral RGB Receiver Technology
- Three independent channel setting
- Serial RS485 output
- 10 tolerance levels setting
- High sensitivity for dark colors
- Fast operating frequency
- Rotating M12 connector

Applications

- Color detection and sorting
- Object orientation
- Quality Inspection
- Automotive industries
- Textile industries
- Bottling industries
- Pharmaceutical industries

Luminescence Sensor-LD46



- 6X high-power UV LED emission
- Fast switching frequency
- Easy settings by pushbuttons
- Clear bar graph indicator
- NPN and PNP and analog outputs

Applications

- Fluorescent marks detection and sorting
- Paper/label detection
- Packaging and Bottling industries
- Paper industries
- Wood and ceramic industries
- Textile industries
- Material handling
- Pharmaceutical industries

Contrast Sensor-TL46



- RGB LEDs emission
- 20kHz switching frequency
- Easy settings
- Selectable NPN/PNP and analog outputs
- Keylock and delay functions
- Market standard mounting
- Rotating M12 connector

Applications

- Print registration mark detection
- Tape color-marks counting
- Bottling industries
- Pharmaceutical industries
- Paper industries
- Color detection
- Labelling and Packaging industries

Light Grid Sensors-AS1



- High resolution area sensor
- Crossed beams light array
- 100mm light controlled height
- 2.1m operating distance
- 0.2mm min. detectable thickness
- No adjustments required
- 5mm resolution and 1ms response time

Applications

- Detection of objects in random positions or dimensions
- Mailing
- Small parts counting
- Feeding and downloading lines
- Paper industries
- Packaging industries
- Material handling
- Pharmaceutical industries
- Wood industries

Light Grid Sensors-DS1



- Height or width measurement
- 150mm controlled height
- Up to 2.1m operating distance
- 5mm resolution
- 1ms response time
- PNP digital and 0-10V analog outputs

Applications

- Position and dimension measurement
- Packaging industries
- Material handling
- Volume measurement
- Wood industries
- Material level control

Part Numbers

M18 Tubular Series - S51

Part Number	Sensing Method	Connection	Output
S51-PA-5-A00-NK	Retro-reflective	M12 Connector	NPN
S51-PA-5-A00-PK			PNP
S51-PA-2-A00-NK		2m Cable	NPN
S51-PA-2-A00-PK			PNP
S51-PA-5-B01-NK	Polarized Retro-reflective	M12 Connector	NPN
S51-PA-5-B01-PK			PNP
S51-PA-2-B01-NK		2m Cable	NPN
S51-PA-2-B01-PK			PNP
S51-PA-5-C01-NK	Long Diffuse	M12 Connector	NPN
S51-PA-5-C01-PK			PNP
S51-PA-2-C01-NK		2m Cable	NPN
S51-PA-2-C01-PK			PNP
S51-PA-5-C10-NK	Short Diffuse	M12 Connector	NPN
S51-PA-5-C10-PK			PNP
S51-PA-2-C10-NK		2m Cable	NPN
S51-PA-2-C10-PK			PNP
S51-PA-5-F00-NK	Through-beam Receiver	M12 Connector	NPN
S51-PA-5-F00-PK			PNP
S51-PA-2-F00-NK		2m Cable	NPN
S51-PA-2-F00-PK			PNP
S51-PA-5-G00-XG	Through-beam Emitter	M12 Connector	-
S51-PA-2-G00-XG		2m Cable	-

50x50 Compact Series - S60

Part Number	Sensing Method	Connection	Output
S60-PA-5-B01-NN	Polarized Retro-reflective	M12 Connector	NPN
S60-PA-5-B01-PP			PNP
S60-PA-5-T51-NN	Retro-reflective for Transparent		NPN
S60-PA-5-T51-PP			PNP
S60-PA-5-C01-NN	Long Diffuse		NPN
S60-PA-5-C01-PP			PNP
S60-PA-5-C11-NN	Short Diffuse		NPN
S60-PA-5-C11-PP			PNP
S60-PA-5-F01-NN	Through-beam receiver		NPN
S60-PA-5-F01-PP			PNP
S60-PA-5-G00-XG	Through-beam emitter	-	

50x50 High-Performance Series - S62

Part Number	Sensing Method	Connection	Output
S62-PA-5-M01-NN	Background suppression 3-30cm	M12 Connector	NPN
S62-PA-5-M01-PP			PNP
S62-PA-5-M11-NN	Background suppression 6-60cm		NPN
S62-PA-5-M11-PP			PNP
S62-PA-5-M21-NN	Background suppression 6-120cm		NPN
S62-PA-5-M21-PP			PNP
S62-PA-5-M31-NN	Background suppression 20-200cm		NPN
S62-PA-5-M31-PP			PNP
S62-PL-5-B01-NN	Laser Polarized Retro-reflective		NPN
S62-PL-5-B01-PP			PNP
S62-PL-5-M11-NN	Laser Background Suppression	NPN	
S62-PL-5-M11-PP		PNP	

Application Sensors

Part Number	Description
S65-PA-5-V19-NNN	Color detection sensor with NPN output
S65-PA-5-V19-PPP	Color detection sensor with PNP output
TL46-WL-815	Contrast sensor with NPN/PNP and 0-5V output
LD46-UL-715	Luminescence sensor with NPN/PNP and 0-5V output
SR21-RG	Fork/Slot sensor with 25kHz frequency
S80-MH-5-YL09-NNIZ	Distance measurement sensor Class 2 Laser 0.3-7m range NPN out
S80-MH-5-YL09-PPIZ	Distance measurement sensor Class 2 Laser 0.3-7m range PNP out
AS1-LD-HR-010-J	Area detection sensor 2m range
DS1-LD-HR-015-JV	Dimensional detection sensor 0-10V out 2m range

Miniature Photoelectric - SA1E

Part Number		Function	Sensing Range	Connection	Mode
NPN Output	PNP Output				
SA1E-TN1-2M	SA1E-TP1-2M	Through-beam	10m	2m Cable	Light ON
SA1E-TN2-2M	SA1E-TP2-2M				Dark ON
SA1E-TN1C	SA1E-TP1C			M8	Light ON
SA1E-TN2C	SA1E-TP2C				Dark ON
SA1E-PN1-2M	SA1E-PP1-2M	Polarized Retro-Reflective	2.5m	2m Cable	Light ON
SA1E-PN2-2M	SA1E-PP2-2M				Dark ON
SA1E-PN1C	SA1E-PP1C			M8	Light ON
SA1E-PN2C	SA1E-PP2C				Dark ON
SA1E-BN1-2M	SA1E-BP1-2M	Background Suppression	20-200mm	2m Cable	Light ON
SA1E-BN2-2M	SA1E-BP2-2M				Dark ON
SA1E-BN1C	SA1E-BP1C			M8	Light ON
SA1E-BN2C	SA1E-BP2C				Dark ON
SA1E-DN1-2M	SA1E-DP1-2M	Diffuse	700mm	2m Cable	Light ON
SA1E-DN2-2M	SA1E-DP2-2M				Dark ON
SA1E-DN1C	SA1E-DP1C			M8	Light ON
SA1E-DN2C	SA1E-DP2C				Dark ON



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Accessories

Reflectors

Appearance	Description	Use with	Part Number
	200 x 300mm self-adhesive RT3870 reflective tape		S94000600
	200 x 300mm self-adhesive RT3970 reflective tape		S94000900
	60 x 40mm self-adhesive RT3970 reflective tape		S94000604
	Ø 23mm prismatic R1 reflector with Ø 31mm support		S940700023
	Ø 48mm prismatic R2 reflector with Ø 63mm support		S940700048
	18 x 54mm prismatic R3 reflector with 22 x 82mm support		S940700972
	47x 47mm prismatic R4 reflector with 51.5 x 61mm support		95A151010
	Ø 75mm prismatic R5 reflector with Ø 82mm support	S51, S60, S62	S940700075
	36 x 55mm prismatic R6 reflector with 40.5 x 60mm support		95A151020
	38 x 40mm microprism R7 reflector with 51 x 60.7mm support		95A151050
	9.7 x 19mm microprism R8 reflector with 13.8 x 23mm support		95A151060
	Ø 23mm prismatic R9 reflector with Ø 25mm self-adhesive support		95A151080
	36 x 176mm prismatic R10 reflector with 41 x 181mm support		S19120000
	146 x 15mm prismatic R11 reflector with 150 x 18mm support		95A155050
	Ø 48mm prismatic R20 reflector with Ø 63mm support		95A151090
	Ø 48mm prismatic S12 reflector with CH.52mm hexagon support		S940710048

Brackets

Appearance	Description	Use with	Part Number
	M18/14 mounting bracket		95ACC5230
	M18 mounting bracket		95ACC5240
	M18 mounting bracket		95ACC5250
	M18 mounting bracket		95ACC5270
	M18/14 adjustable mounting support (sensor not included)	S51	95ACC5300
	M18 jointed support		95ACC5220
	support with micrometric regulation for M18 tubular		95ACC1380
	Front protection		G5000001
	1pc adjustable support for M18 tubular		895000006
	2 pcs fixed support for M18 tubular		95ACC1370
	Protection bracket with jointed support	S60	95ACC5350
	S60 mounting bracket		95ACC1320
	ST5018 Protection bracket		95ACC5310
	ST5019 Protection bracket		95ACC5320
	ST5020 Mounting bracket	S60, S62, S65	95ACC5330
	ST5021 Mounting bracket		95ACC5340
	L shaped mounting bracket	S80	95ACC2260

Accessories

Cables (for connector equipped sensors)

Appearance	Type & Length	Use with	Part Number
	5m 4-pole M12 cable	S51, S60, S62, DS1 (emitter) AS1 (emitter)	CS-A1-02-G-05
	5m right-angle 4-pole M12 cable		CS-A2-02-G-05
	5m 8-pole M12 cable	S65, S80	CS-A1-06-B-05
	5m right-angle 5-pole M12 cable	TL46, LD46, DS1 (receiver), AS1 (receiver)	CS-A1-03-G-05
	5m 4-pole M8 cable	SR21	CS-B1-02-G-05
	5m right-angle 4-pole M8 cable		CS-B2-02-G-05

Lenses

Appearance	Item	Use with	Part Number
	Glass lens with 9mm focus	TL46	95ACC2540
	Glass lens with 18mm focus		95ACC1030
	Glass lens with 22mm focus		95ACC1100
	Glass lens with 28mm focus		890000194
	Plastic lens with 40mm focus	TL46, LD46	95ACC1220

Appearance	Item	Part Number	Availability
	112-page, short form sensor catalog	DS9Y-C100-0	on ILC

800-262-IDEDEC



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