



2026

PRODUCT CATALOGUE



TIANZHII TECH

Industrial Sensors · Connectivity
Custom Parts · MRO

www.tianzhiyitech.com

Shenzhen Tianzhiyi Technology Co., Ltd.

CONTENTS

PROXIMITY SENSORS	
Miniature proximity sensors	1
Short-body proximity sensors	1
Standard cylindrical proximity sensors	2
All-metal proximity sensors	2
Rectangular proximity sensors	3
High-temperature proximity sensors	4
Low-temperature proximity sensors	4
Corrosion-resistant proximity sensors	5
Analog-output proximity sensors	5
Ring-type proximity sensors	6
All-metal sensors: ferrous-only / non-ferrous-only	6
Rectangular explosion-proof proximity sensors	7
Cylindrical explosion-proof proximity sensors	7
Weld-immune, magnetic-field-resistant sensors	8
High-pressure proximity sensors	8
Cylindrical capacitive proximity sensors	9
Rectangular capacitive proximity sensors	9
Corrosion-resistant capacitive sensors	10
Specialty proximity sensors	11
MAGNETIC SWITCH SENSORS	
Magnetic switch sensors	11
SENSOR CONNECTORS	
Sensor connection cables	12
Quick-connect sensor connectors	12
PHOTOELECTRIC SENSORS	
Miniature photoelectric sensors	13
Standard cylindrical photoelectric sensors	13
Rectangular photoelectric sensors	14
Ultra-thin compact rectangular photoelectric sensors	15
Miniature right-angle laser photoelectric sensors	15
Miniature rectangular laser photoelectric sensors	16
Slot-type photoelectric sensors	17
LASER SENSORS	
Miniature laser sensors	18
Standard cylindrical laser sensors	18
Rectangular laser sensors	19
LASER DISPLACEMENT SENSORS	
Laser displacement sensors	19

LINE-BEAM LASER SENSORS	
Line-beam laser photoelectric sensors	20
CONTRAST SENSORS	
Contrast / registration mark sensors	20
SAFETY LIGHT CURTAINS	
Safety light curtain sensors	21
FRAME SENSORS	
Frame sensors for falling-part detection	21
ULTRASONIC SENSORS	
Ultrasonic sensors	22
LABEL SENSORS	
Label sensors	22
COLOR SENSORS	
Color sensors	23
FIBER OPTIC SENSORS	
Standard fiber optic sensors	24
High-temperature fiber optic sensors	24
Side-view fiber optic sensors	25
Multi-head fiber optic sensors	25
Focused fiber optic sensors	26
Smooth-barrel fiber optic sensors	27
Ultra-miniature flat fiber optic sensors	27
Standard fiber optic arrays	28
Premium fiber optic arrays	29
U-shaped through-beam fiber optic sensors	29
Standard fiber optic focusing lenses	30
350°C high-temperature fiber optic focusing lenses	30
Fiber optic amplifiers	31
Specialty fiber optic amplifiers	32
DIGITAL-DISPLAY SENSORS	
Miniature digital-display laser amplifiers	33
Digital-display inductive sensors, separate type	34
Digital-display capacitive sensors, separate type	34
Q25 digital-display capacitive proximity sensors	35

MINIATURE PROXIMITY SENSORS



Model	Flush (mm)	Non-flush (mm)
D3	0.6 / 0.8 / 1	-
D4	0.8 / 1 / 1.2 / 1.5	-
M4	0.6 / 0.8 / 1	-
M5	0.8 / 1 / 1.2 / 1.5	-
Q5 / Q5T / Q5F	-	0.8 / 1
M6	0.8 / 1 / 1.2 / 1.5	-

Output: NPN / PNP; NO or NC selectable

Temperature: -25 to +75°C

Housing: Stainless steel / nickel-plated brass / PBT

Q5: metal housing; Q5T and Q5F: plastic housing.

Supply: 10-30 V DC, 3-wire

Protection: IP67

SHORT BODY PROXIMITY SENSORS



Model	Flush (mm)	Non-flush (mm)	Length F / NF (mm)
D3 separate	0.6 / 0.8 / 1	-	15 / -
D4 separate	0.8 / 1 / 1.2 / 1.5	-	15 / -
M4 separate	0.6 / 0.8 / 1	-	15 / -
M5 / M6 separate	0.8 / 1 / 1.2 / 1.5	-	15 / -
D6.5 / M8	1 / 2	2	18 / 22
M12	2 / 4	4	22 / 26

Output: NPN / PNP; NO or NC selectable

Temperature: -25 to +75°C

Housing: Stainless steel / nickel-plated brass

Supply: 10-30 V DC, 3-wire

Protection: IP67

STANDARD CYLINDRICAL PROXIMITY SENSORS



Model	Flush (mm)	Non-flush (mm)
D6.5 / M8	1 / 2 / 3	2 / 4 / 6
M12	2 / 4 / 6	4 / 8 / 10
M18	5 / 8 / 12	8 / 12 / 16 / 20
M30	10 / 16 / 22	15 / 25 / 40

Output: NPN / PNP; NO or NC selectable

Temperature: -25 to +75°C

Housing: Stainless steel / nickel-plated brass

Supply: DC: 10-30 V (2/3/4-wire), 5 V (3-wire), 10-60 V (2-wire); AC: 20-250 V (2/3-wire)

Protection: IP67

4-wire DC: NO+NC. 3-wire AC: 2-wire plus earth. Supply options depend on model.

ALL METAL PROXIMITY SENSORS



Model	Flush (mm)	Non-flush (mm)
M8	1 / 2	2 / 3
M12	2 / 4	4
M18	5 / 8	8
M30	10 / 15	15

Output: NPN / PNP; NO or NC selectable

Temperature: -25 to +75°C

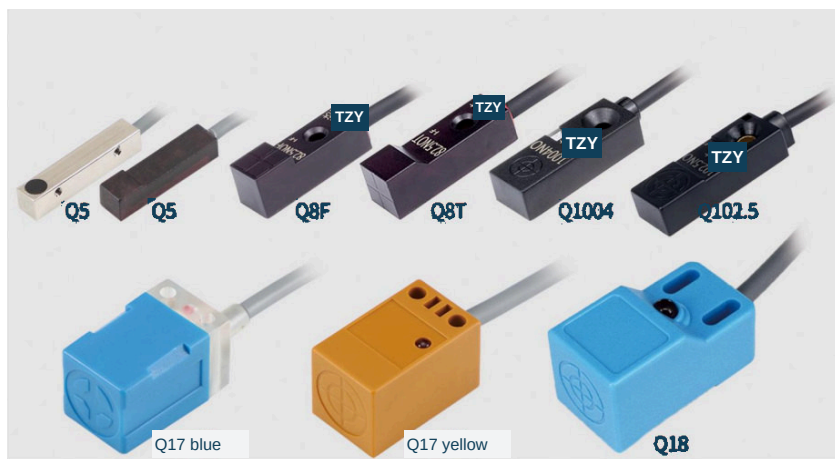
Housing: Stainless steel

Supply: 10-30 V DC (2/3-wire); 20-250 V AC (2-wire)

Protection: IP67

Supply options depend on model.

RECTANGULAR PROXIMITY SENSORS



Model	Flush (mm)	Non-flush (mm)
Q5	0.8 / 1	-
Q8	-	2.5
Q102.5	-	2.5
Q1004	-	4
Q17 / Q18	-	5 / 8

Output: NPN / PNP; NO or NC selectable

Temperature: -25 to +75°C

Housing: Nickel-plated brass / PBT / ABS

Supply: 10-30 V DC, 3-wire

Protection: IP67

Q5 metal; Q5T / Q5F plastic. Q8F / Q8T variants. Q17: blue or yellow.

RECTANGULAR PROXIMITY SENSORS



Model	Flush (mm)	Non-flush (mm)
Q18C	-	5 / 8
Q25	-	10 / 15
Q30	10	15
Q40 standard / short / modular	15 / 20	20 / 30 / 40
Q48	15	20
Q80	40 / 50	50 / 70

Output: NPN / PNP; NO or NC selectable

Temperature: -25 to +75°C

Housing: ABS / PBT

Supply: 10-30 V DC (2/3/4-wire); 20-250 V AC (2-wire)

Protection: IP67

4-wire DC: NO+NC. Supply options depend on model.

HIGH TEMPERATURE PROXIMITY SENSORS



Model	Flush (mm)	Non-flush (mm)
D4 / M5 / M6	0.8 / 1	-
D6.5 / M8	1 / 2	2
M12	2 / 4	4
M18	5 / 8	8
M30	10 / 15	15

Output: NPN / PNP; NO or NC selectable

Supply: 10-30 V DC, 3-wire

Temperature: -25 to +100°C / +120°C / +150°C (by model)

Protection: IP67

Housing: PTFE / nickel-plated brass / stainless steel

LOW TEMPERATURE PROXIMITY SENSORS



Model	Flush (mm)	Non-flush (mm)
M8	1 / 2	2 / 4
M12	2 / 4	4 / 8
M18	5 / 8	8 / 16
M30	10 / 16	15 / 25

Output: NPN / PNP; NO or NC selectable

Supply: 10-30 V DC, 2/3-wire

Temperature: -40 to +70°C

Protection: IP67

Housing: Nickel-plated brass

CORROSION RESISTANT PROXIMITY SENSORS



Model	Flush (mm)	Non-flush (mm)
M12	2 / 4	4 / 8
M18	5 / 8	8 / 16 / 20
M30	10 / 15	15 / 25 / 30

Output: NPN / PNP; NO or NC selectable

Temperature: -25 to +75°C

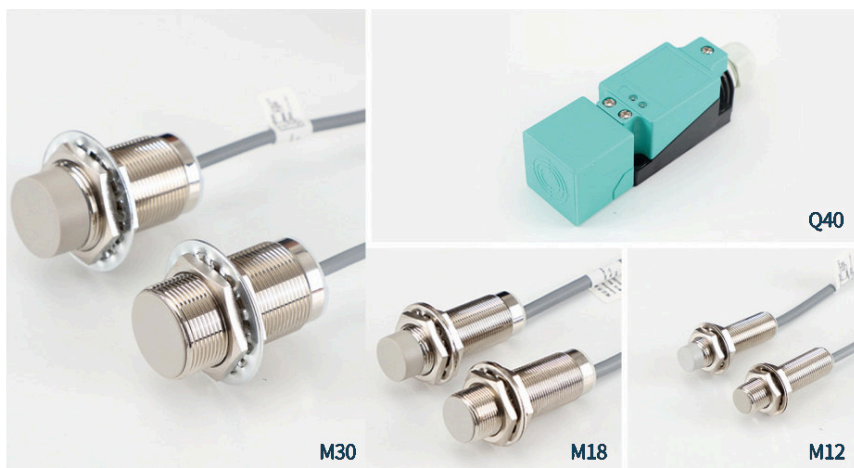
Housing: One-piece PTFE

4-wire DC: NO+NC. Supply options depend on model.

Supply: 10-30 V DC (2/3/4-wire); 20-250 V AC (2-wire)

Protection: IP67

ANALOG OUTPUT PROXIMITY SENSORS



Model	Flush (mm)	Non-flush (mm)
M12	3	4
M18	5	8
M30	10	15
Q40	15	20

Output: 3-wire: 0-10 V / 4-20 mA / 0-20 mA; 4-wire: 0-10 V + 4-20 mA

Temperature: -25 to +75°C

Housing: Nickel-plated brass / PBT

3-wire: current or voltage output; 4-wire: combined current and voltage.

Supply: 18-30 V DC, 3-wire or 4-wire

Protection: IP67

RING TYPE PROXIMITY SENSORS



Available ring sizes	Available ring sizes
R3 / R4 / R5 / R6 / R8 / R9 / R10	R12 / R14 / R15 / R16 / R17
R21 / R22 / R25 / R35 / R50	R75 / R100

Output: NPN / PNP; adjustable NO/NC, pulse delay and sensitivity

Temperature: -25 to +70°C

Housing: PBT

Supply: 10-30 V DC, 3-wire

Protection: IP67

SELECTIVE METAL PROXIMITY SENSORS



Model	Flush (mm)	Non-flush (mm)
M8	1 / 2	2
M12	2	4
M18	5	8
M30	10	15

Output: NPN / PNP; NO or NC selectable

Temperature: -25 to +70°C

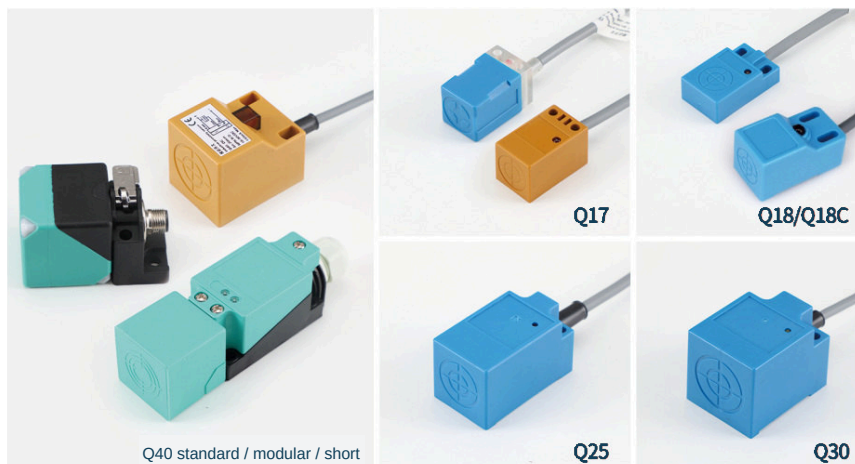
Housing: Stainless steel

Supply: 10-30 V DC, 2/3-wire

Protection: IP67

All-metal variants for ferrous-only or non-ferrous-only detection.

RECTANGULAR EXPLOSION PROOF PROXIMITY SENSORS



Model	Flush (mm)	Non-flush (mm)
Q17 / Q18	-	5
Q18C	-	5
Q25	-	10
Q30	-	15
Q40	-	20

Output: 2-wire

Temperature: -25 to +75°C

Housing: PBT / ABS

Supply: 6-12 V DC, 2-wire

Protection: IP67

CYLINDRICAL EXPLOSION PROOF PROXIMITY SENSORS



Model	Flush (mm)	Non-flush (mm)
D4 / M5 / M6	0.8 / 1 / 1.2	-
D6.5 / M8	1 / 2	2
M12	2 / 4	4
M18	5 / 8	8
M30	10	15

Output: 2-wire

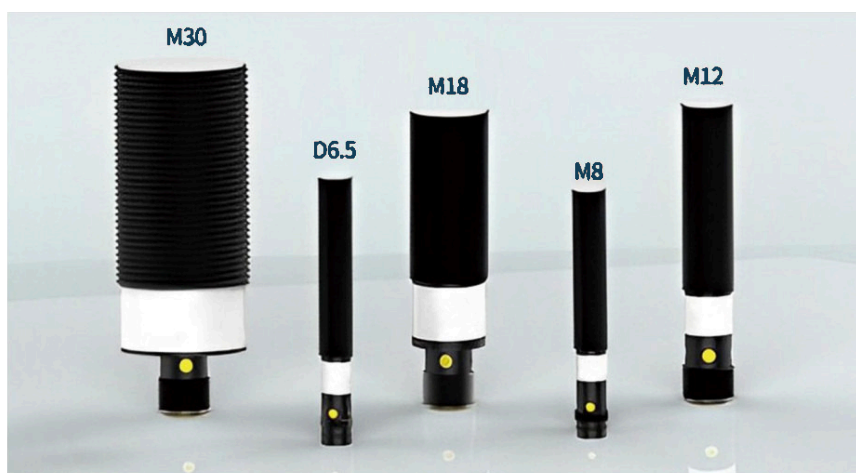
Temperature: -25 to +75°C

Housing: Stainless steel / nickel-plated brass

Supply: 6-12 V DC, 2-wire

Protection: IP67

WELD IMMUNE PROXIMITY SENSORS



Model	Flush (mm)	Non-flush (mm)
D6.5 / M8	1 / 2	2
M12	2 / 4	4
M18	5 / 8	8
M30	10	15

Output: NPN / PNP; NO or NC selectable

Temperature: -25 to +70°C

Housing: PTFE-coated brass

Resistant to welding-related magnetic fields.

Supply: 10-30 V DC, 3-wire

Protection: IP67

HIGH PRESSURE PROXIMITY SENSORS



Model	Flush (mm)	Non-flush (mm)
M12	1.5 / 2	-
M18	2 / 3	-

Output: NPN / PNP; NO or NC selectable

Temperature: -25 to +75°C

Housing: Stainless steel

Supply: 10-30 V DC, 3-wire

Protection: IP67

Pressure: 500 bar

CYLINDRICAL CAPACITIVE PROXIMITY SENSORS



Model	Flush (mm)	Non-flush (mm)
D6.5 / M8	1 / 2	2 / 4
M12	2 / 3	4 / 6
M18	5 / 8	8 / 15
M30	10 / 20	15 / 30
D34	-	25

Output: NPN / PNP; NO, NC or NO+NC

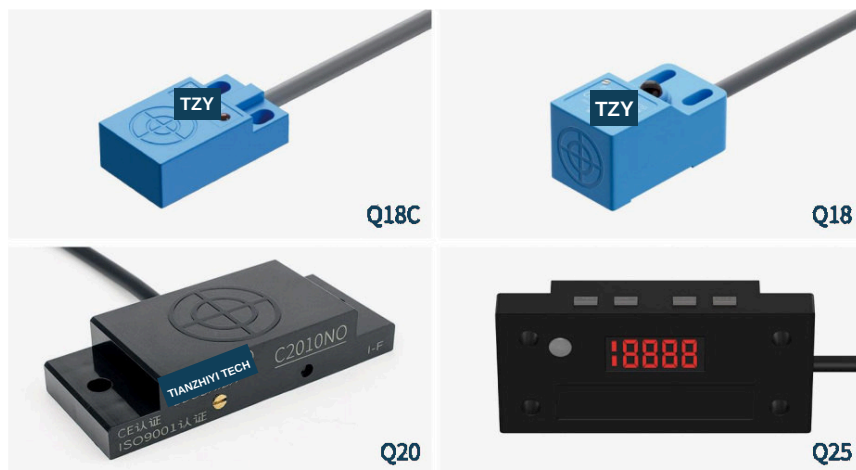
Temperature: 0 to +55°C

Housing: Stainless steel / nickel-plated brass / ABS

Supply: 10-30 V DC (3-wire); 10-40 V DC (3/4-wire); 20-250 V AC (2-wire)

Protection: IP67

RECTANGULAR CAPACITIVE PROXIMITY SENSORS



Model	Flush (mm)	Non-flush (mm)
Q18 / Q18C	5	-
Q20	-	10
Q25	20	-

Output: NPN / PNP; NO, NC or NO+NC

Temperature: 0 to +55°C

Housing: PBT / ABS

Supply: 10-30 V DC, 3/4-wire

Protection: IP65 / IP67

CORROSION RESISTANT CAPACITIVE SENSORS



Model	Flush (mm)	Non-flush (mm)
M12	2 / 3	4 / 6
M18	5 / 8	8 / 15
M30	10 / 20	15 / 30

Output: NPN / PNP; NO, NC or NO+NC

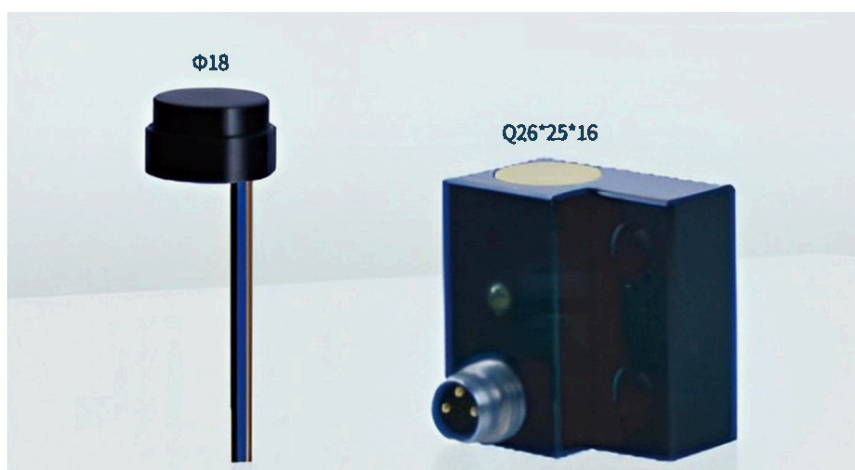
Temperature: 0 to +55°C

Housing: One-piece PTFE / PTFE

Supply: 10-30 V DC (3-wire); 10-40 V DC (3/4-wire); 20-250 V AC (2-wire)

Protection: IP67

SPECIALTY PROXIMITY SENSORS



Model	Flush (mm)	Non-flush (mm)
D18	5	8
Q26 (26 x 25 x 15 mm)	1 / 2	-

Output: NPN / PNP; NO or NC selectable

Supply: 10-30 V DC, 3-wire

Temperature: -25 to +70°C

Protection: IP67 / IP68

Housing: POM / aluminum alloy

Q26 drawing caption specifies 26 x 25 x 16 mm; table specifies 15 mm thickness. Confirm before ordering.

MAGNETIC SWITCH SENSORS



Series	Type
CMS	Reed contact
DMS	Contactless electronic, 2/3-wire
EMS	Miniature electronic, 2-wire; smaller than DMS

Output: NPN / PNP; NO / NC; automatic NPN/PNP detection

Features: 2-wire electronic delay; ultra-low voltage drop

Supply: 10-28 V DC; 5-30 V DC; 5-240 V AC/DC

Connection: Direct cable or quick-connect male plug

Shapes: G / H / E / J / U / F / Q

Temperature: -10 to +70°C

SENSOR
CONNECTION
CABLES



Size	Configuration	Contacts
M8	Straight / right-angle female	3 / 4 sockets
M12	Straight / right-angle female	4 sockets

Cable: UL PVC; black; 2 m standard, custom lengths available

M8 cable: 5 mm diameter; 3 x 0.25 mm²

M12 cable: 5 mm diameter; 4 x 0.25 mm²

Confirm cable core count for the selected 4-contact M8 connector.

QUICK CONNECT
SENSOR
CONNECTORS



Size	Configuration	Contacts
M8	Straight female	3 / 4 sockets
M8	Straight male	3 / 4 pins
M12	Straight / right-angle female	4 sockets
M12	Straight / right-angle male	4 pins

Compatibility: For matching M8 / M12 sensor ports

MINIATURE PHOTOELECTRIC SENSORS



Model	Diffuse range (mm), adjustable
M3	5-30 / 5-40
M4	10-50 / 10-70
M5	15-100 / 15-130
M6	20-150 / 20-200
M4-TZ	10-50
M5-TZ / M6-TZ	15-100

Output: NPN / PNP; NO or NC selectable; NO+NC option

Temperature: 0 to +50°C

Housing: Stainless steel

Supply: 10-30 V DC, 3/4-wire

Protection: IP65

Light: Invisible infrared

STANDARD CYLINDRICAL PHOTOELECTRIC SENSORS



Model	Diffuse (mm)	Through-beam	Retroreflective
M8	20-150 / 20-200	-	-
M12	20-100 / 20-200 / 30-300	2 / 5 m	150-1000 mm
M18	30-300 / 50-500 / 200-1000	5 / 15 m	200-2000 mm
M12 connector	20-100 / 20-200 / 30-300	2 / 5 m	150-1000 mm
M18 connector	50-300 / 50-500	-	200-2000 mm

Output: NPN / PNP; NO or NC selectable; NO+NC option

Temperature: 0 to +50°C

Housing: Nickel-plated brass

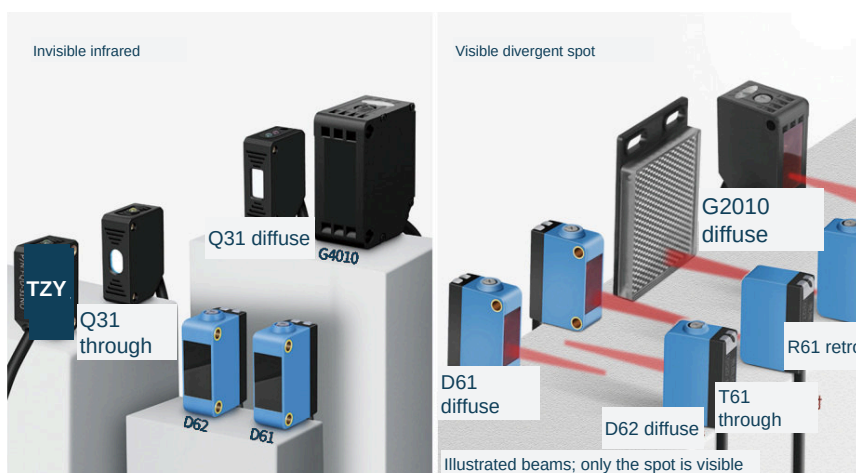
Supply: 10-30 V DC, 3/4-wire

Protection: IP65

Light: Invisible infrared

Diffuse and retroreflective ranges are adjustable.

RECTANGULAR INFRARED PHOTOELECTRIC SENSORS



Model	Diffuse (mm)	Through-beam	Retroreflective
Q31	30-100 / 30-200 / 50-300	5 m	200-2000 mm
D61	30-300	-	-
D62	50-800	-	-
G4010 (BGS)	50-4000	-	-
Q50	50-500 / 50-1500	15 m	200-4000 mm
Q50 AC/DC	50-1500	15 m	-

Output: NPN / PNP; NO or NC selectable; NO+NC option

Temperature: 0 to +50°C

Housing: ABS / PBT / PC

Supply: 10-30 / 12-24 V DC (3/4-wire); 20-250 V AC/DC relay (5-wire)

Protection: IP65

Light: Invisible infrared

Diffuse ranges adjustable. BGS = background suppression. Supply depends on model.

RECTANGULAR VISIBLE-LIGHT PHOTOELECTRIC SENSORS

Model	Diffuse (mm)	Through-beam	Retroreflective
BG442 (BGS)	30-500	-	-
D61	30-150	-	-
D62	40-600	-	-
G2010 (BGS)	30-1500	-	-
R61	-	-	2 m
B61	-	-	50-300 mm
CCD	30-300	-	30-3000 mm
T61	-	10 m	-
AZ1000 digital	100-1500	-	-

Output: NPN / PNP; NO or NC selectable; NO+NC option

Temperature: 0 to +50°C

Housing: ABS / PC

Supply: 10-30 / 12-24 V DC, 3/4-wire

Protection: IP65

Light: Visible divergent spot

BG442 / D61 / D62 / G2010 and B61 ranges adjustable. B61 and CCD suit transparent-object detection.

ULTRA THIN RECTANGULAR PHOTOELECTRIC SENSORS



Model	Diffuse (mm)	Through-beam
CB11 front sensing	2-40	500 mm
CB11 side sensing	-	800 mm
3030 front sensing	2-30	-
21 side sensing	2-50	2 m
Q21	20-200	-

Output: NPN / PNP; NO/NC switchable

Temperature: -25 to +55°C

Housing: ABS / PBT / stainless steel

Supply: 12-24 V DC, 4-wire

Protection: IP66

Light: Visible divergent / invisible infrared / visible laser spot

MINIATURE RIGHT ANGLE LASER / PHOTOELECTRIC SENSORS



Model	Diffuse (mm)	Through-beam	Light
M4-TZ laser	10-50	20 m	Approx. 2 mm red spot
M5-TZ / M6-TZ laser	15-100	20 m	Approx. 2 mm red spot
M4-TZ photoelectric	10-50	-	Invisible infrared
M5-TZ / M6-TZ photoelectric	15-100	-	Invisible infrared
D12-TZ	-	5 m	Invisible infrared

Output: NPN / PNP; NO or NC selectable; NO+NC option

Temperature: M4/M5/M6: 0 to +50°C; D12: -20 to +60°C, no icing

Housing: PC / stainless steel

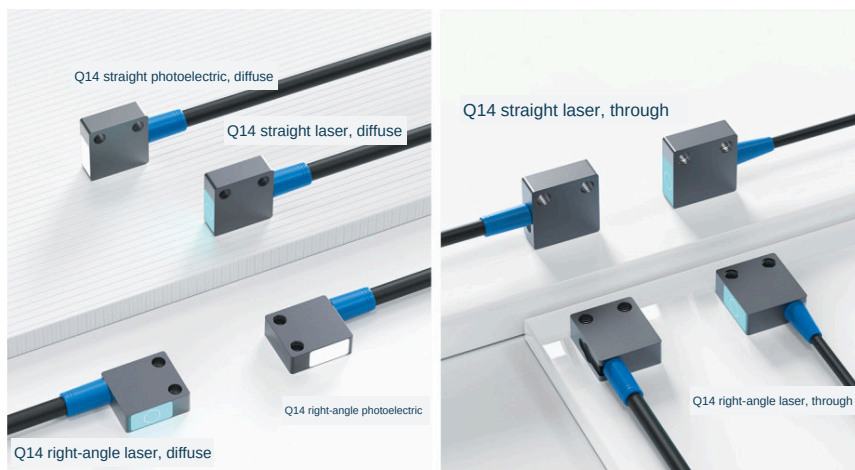
Supply: 10-30 V DC, 3/4-wire

Protection: IP65

Light: See model table

Diffuse ranges adjustable. D12-TZ: gates and automatic curtains.

MINIATURE RECTANGULAR LASER / PHOTOELECTRIC SENSORS



Model	Diffuse (mm)	Through-beam	Light
Q14 straight laser	10-100 / 10-130	20 m	Approx. 2 mm red spot
Q14 right-angle laser	10-100 / 10-130	20 m	Approx. 2 mm red spot
Q14 straight photoelectric	10-100 / 10-130	-	Invisible infrared
Q14 right-angle photoelectric	10-100 / 10-130	-	Invisible infrared

Output: NPN / PNP; NO or NC selectable

Temperature: 0 to +55°C

Housing: Aluminum alloy

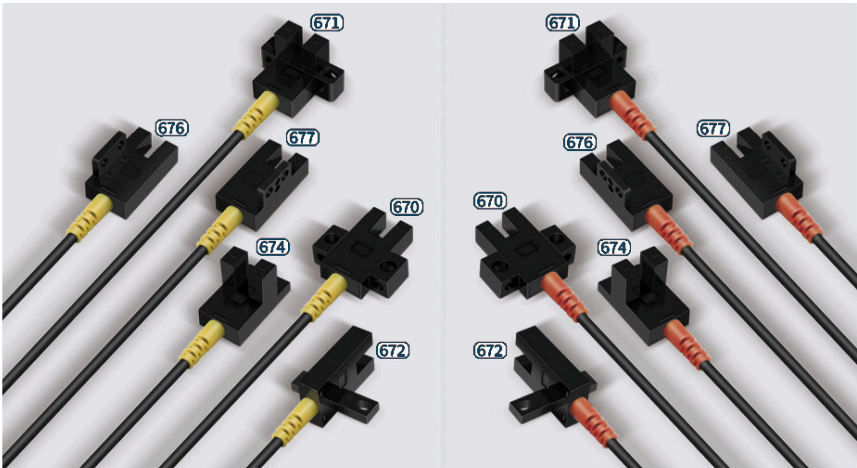
Diffuse ranges adjustable.

Supply: 10-30 V DC, 3-wire

Protection: IP65

Light: Invisible infrared / visible laser spot

PRE WIRED SLOT
TYPE
PHOTOELECTRIC
SENSORS



Series	Slot width
670 / 671 / 672 / 674 / 676 / 677	5 mm

Output: NPN / PNP; NO/NC switchable

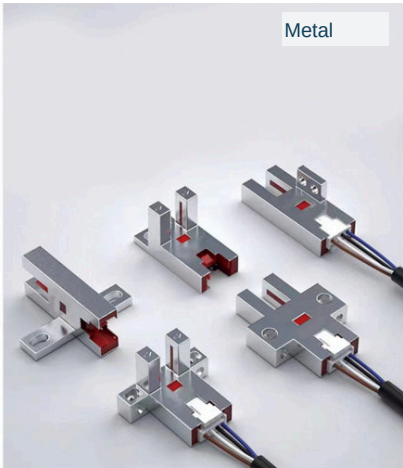
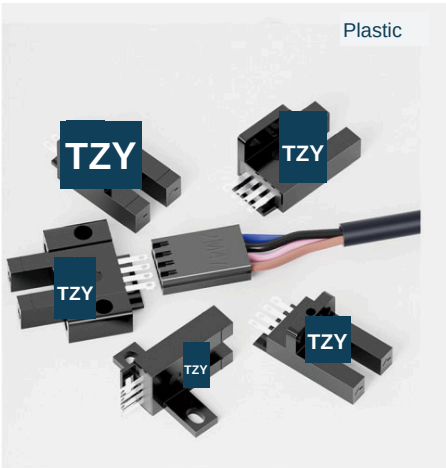
Temperature: 0 to +55°C

Housing: Polymer

Supply: 5-24 V DC, 4-wire

Protection: IP54

CONNECTOR
TYPE SLOT
PHOTOELECTRIC
SENSORS



Series / accessory	Slot width / type
670 / 671 / 672 / 673 / 674 / 676 / 677	5 mm
1006	Connection lead

Output: NPN / PNP; NO/NC switchable

Temperature: 0 to +55°C

Housing: Polymer / aerospace aluminum

Supply: 5-24 V DC, 4-wire

Protection: IP54

MINIATURE LASER SENSORS



Model	Diffuse (mm)	Through-beam
M3	5-30 / 5-40	20 m
M4	10-50 / 10-70	20 m
M4-TZ	10-50	20 m
M5	15-100 / 15-130	20 m
M5-TZ / M6-TZ	15-100	20 m
M6	20-150 / 20-200	20 m

Output: NPN / PNP; NO or NC selectable; NO+NC option

Temperature: 0 to +50°C

Housing: Stainless steel

Diffuse ranges adjustable.

Supply: 10-30 V DC, 3/4-wire

Protection: IP65

Light: Approx. 2 mm spot

STANDARD CYLINDRICAL LASER SENSORS



Model	Diffuse (mm)	Through-beam	Retroreflective
M8	20-150 / 20-200	30 m	-
M12	20-100 / 20-200 / 30-300	50 m	300-5000 mm
M18	50-300 / 70-500	50 m	300-8000 mm
M12 connector	20-100 / 20-200 / 30-300	50 m	300-5000 mm
M18 connector	50-300 / 70-500	50 m	300-8000 mm

Output: NPN / PNP; NO or NC selectable; NO+NC option

Temperature: 0 to +50°C

Housing: Nickel-plated brass

Diffuse and retroreflective ranges adjustable.

Supply: 10-30 V DC, 3/4-wire

Protection: IP65

Light: Approx. 3 mm spot

RECTANGULAR LASER SENSORS



Model	Diffuse (mm)	Through-beam	Retroreflective
Q31	20-100 / 20-200 / 50-300	30 m	300 mm-8 m
LD61	30-500	-	-
LT61	-	20 m	-
441 (BGS)	2-50	-	-
MK31 (BGS)	30-200	-	-
LL61 (BGS)	30-500	-	-
G3010 (BGS)	30-2000	-	-

Output: NPN / PNP; NO or NC selectable; NO+NC option

Temperature: 0 to +50°C

Housing: PC / ABS / PBT

Ranges adjustable except MK31. Supply depends on model.

Supply: 10-30 / 12-24 V DC, 3/4-wire

Protection: IP65

Light: Approx. 2-3 mm spot

LASER DISPLACEMENT SENSORS



Model	Switching / dual-output range
LSD-S030	30 ± 5 mm
LSD-S050	50 ± 15 mm
LSD-S100	100 ± 35 mm
LSD-S200	200 ± 80 mm
LSD-S400	400 ± 200 mm

Output: NPN / PNP; NO/NC switchable

Temperature: 0 to +50°C

Housing: Die-cast aluminum

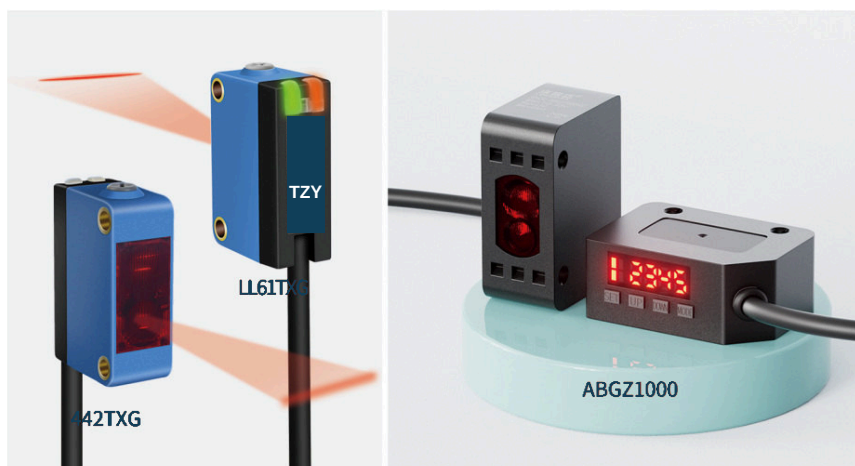
Switching or combined switching + analog output variants.

Supply: 12-24 V DC

Protection: IP67

Light: Approx. 1 mm spot

LINE BEAM LASER PHOTOELECTRIC SENSORS



Model	Diffuse range	Line size
LL61TXG (BGS)	30-100 mm adjustable	Approx. 2 mm wide
442TXG (BGS)	30-150 mm adjustable	Approx. 5-8 mm wide
ABGZ1000 (BGS)	100-250 mm detection height	70 mm long at 100 mm height

Output: NPN / PNP; NO/NC switchable; NO+NC

Temperature: 0 to +50°C

Housing: PC / ABS

Supply depends on model.

Supply: 10-30 / 12-24 V DC, 3/4-wire

Protection: IP65

Light: Line size varies with installation height

CONTRAST / REGISTRATION MARK SENSORS



Model	Type	Diffuse range
KTM	Single-color light	8-20 mm
CSM	Three-color light	8-20 mm
101N	Digital display	8-25 mm
C71	Amplifier	6-20 mm
V48	RGB digital color amplifier	8-20 mm; approx. 50 mm with dedicated lens

Output: NPN / PNP; NO or NC selectable

Temperature: 0 to +50°C

Housing: PC / ABS

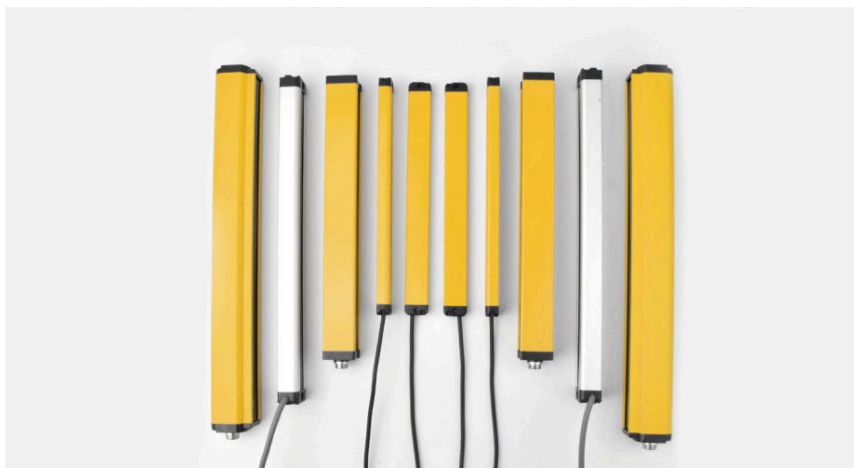
Supply depends on model.

Supply: 12-24 / 10-30 V DC, 3-wire or 6-wire

Protection: IP65

Light: By model

SAFETY LIGHT CURTAIN SENSORS



Parameter	Options
Beam count	4 / 6 / 8 / 10 / 12 ... 300; even counts available
Beam pitch	10 / 20 / 30 / 40 / 60 / 80 mm
Housing sections	30 x 30 standard; 35 x 40 long-range; 32 x 20 slim (mm)
Housing sections	12 x 25 front ultra-slim; 28 x 28 zero-blind-zone; 10 x 22 side ultra-slim (mm)

Outputs: NPN / PNP NO or NC, single or dual; relay NO/NC; RS232 / RS485

Temperature: -10 to +55°C

Mounting: L-shaped side brackets / top-bottom hole brackets

Supply / relay: 12-24 V DC; relay 5 A / 250 V AC or 5 A / 30 V DC

Protection / range: IP65; 0.5-30 m options

Housing / lens: Aluminum alloy / polyester

Options: Optical/wired synchronization; water/dust protection; heated cover (NEMA 3R / IEC IP54)

FRAME SENSORS FOR FALLING PART DETECTION



Version	Sensing window
Integrated	50 x 50 / 120 x 120 mm window
Separate	20 x 20 / 50 x 50 / 120 x 120 mm window + amplifier

Output: NPN / PNP; NO/NC switchable

Housing: Insulating material

Supply: 10-30 V DC, 4-wire

Light / mounting: Invisible infrared / screw mounting

Separate version requires a dedicated amplifier. Integrated version includes digital adjustment and works without an external amplifier.

ULTRASONIC SENSORS



Series	Output	Range	Performance
M18 / M30	Switching / analog	500 / 1000 / 2000 mm	±0.25% of sensing distance
M18 double-sheet	Switching	20-60 mm	Minimum paper: 10 g/m ²

Supply: 24 V DC

Temperature: -25 to +70°C

Standard range measured with 300 x 300 mm cardboard target.

Protection: IP67

Housing: Nickel-plated brass

LABEL SENSORS



Model	Detection gap
CX11	2 mm slot

Output: NPN; NO/NC adjustable

Temperature: 0 to +50°C

Housing: Plastic

Supply: 10-30 V DC, 3-wire

Protection: IP65

RGB DIGITAL COLOR SENSOR

LSD-V48

8-color memory · 4 output channels
Over 300 colors · Multiple detection modes

Output: NPN; NO/NC switchable

Temperature: -10 to +55°C

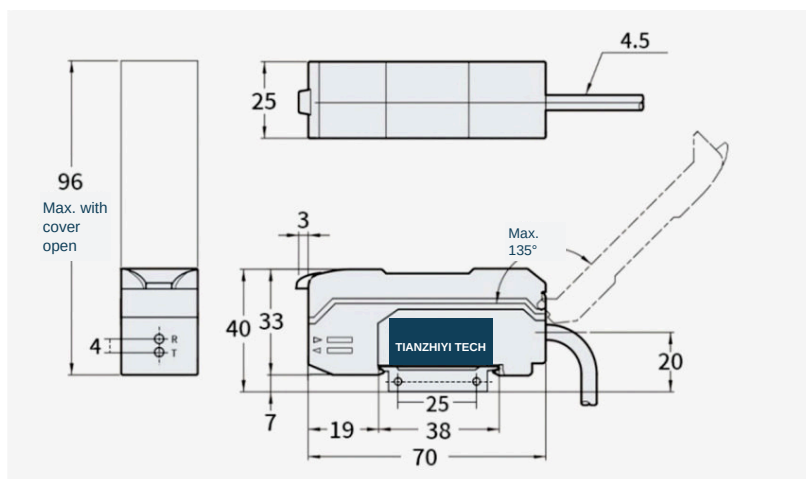
Housing: PC



Supply: 12-24 V DC, 6-wire

Protection: IP65

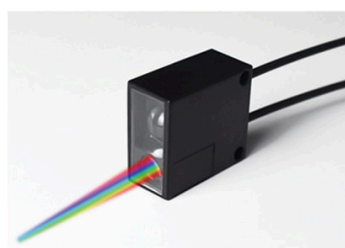
DIMENSIONS & CONTROLS



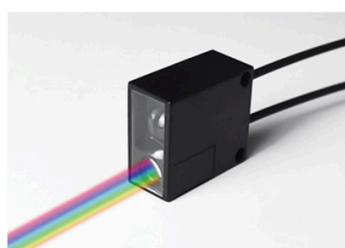
Dimensions in mm



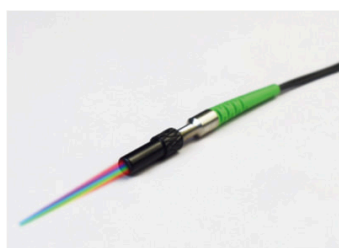
SENSOR HEADS & FOCUSING LENSES



LSD-C241



LSD-C240



GRC310 + 2HA



GRC610 + 6HA

Head / lens	Working distance	Features
LSD-C241	15-25 mm	Approx. 1 mm spot; positioning and small-object detection
LSD-C240	35-65 mm	Approx. 5 mm spot; general object detection
GRC310 + 2HA	Within 10 mm recommended	M3; adjustable 1-3 mm spot
GRC610 + 6HA	Within 50 mm recommended	M6; adjustable 3-10 mm spot

C241/C240: wider optical acceptance for improved resolution. GRC spot size depends on sensing height.

STANDARD FIBER OPTIC SENSORS



Type	Sizes	Housing
Standard	M3 / M4 / M6 / M3-TZ / M4-TZ / M6-TZ	Stainless steel / nickel-plated brass
Imported fiber cable	M3 / M4 / M6	Stainless steel
Metal-sheathed	M3 / M4 / M6 / M3-TZ / M4-TZ / M6-TZ	Stainless steel / nickel-plated brass

Fiber type: Diffuse / through-beam / coaxial multi-core
Temperature: -10 to +55°C
Housing: Stainless steel
Bend radius: R25

HIGH TEMPERATURE FIBER OPTIC SENSORS



Temperature class	Operating temperature
350°C	0 to +350°C
200°C	0 to +200°C
100°C	0 to +100°C

Fiber type: Diffuse / through-beam
Temperature: See model table
Housing: Stainless steel
Bend radius: R25

All classes: M3 / M4 / M6 / M3-TZ / M4-TZ / M6-TZ.

SIDE VIEW FIBER OPTIC SENSORS

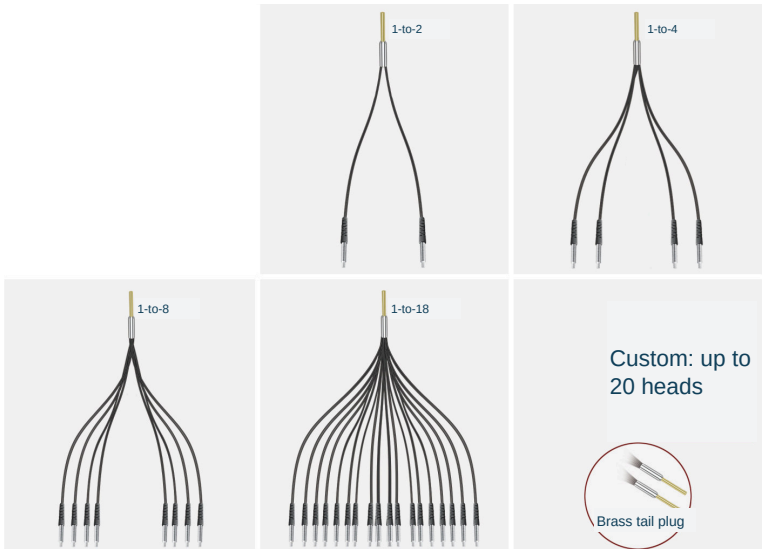


Type	Variants
Diffuse	2 mm / 6 mm side emission
Through-beam	3 mm / ultra-fine side emission

Fiber type: Diffuse / through-beam
Temperature: -10 to +55°C

Housing: Stainless steel / nickel-plated brass
Bend radius: R25

MULTI-HEAD FIBER OPTIC SENSORS

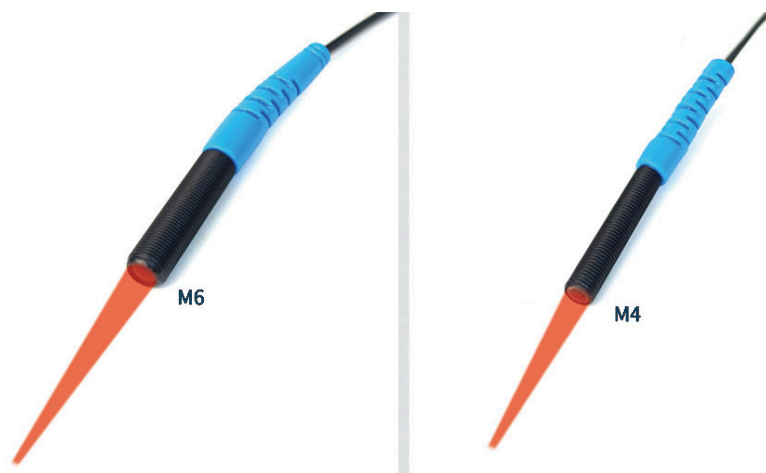


Parameter	Options
Sizes	M3 / M4 / M3-TZ / M4-TZ
Branches	1-to-2 / 1-to-4 / 1-to-8 / 1-to-18
Customization	Up to 20 fiber heads; brass multi-branch tail plug

Fiber type: Diffuse / through-beam
Temperature: -10 to +55°C

Housing: Stainless steel
Bend radius: R25

FOCUSED FIBER OPTIC SENSORS



Size	Sensing distance / spot size
M4	10 mm / 0.5 mm; 20 mm / 2 mm
M6	25 mm / 0.5 mm; 70 mm / 6 mm

Fiber type: Coaxial diffuse
Temperature: -10 to +55°C

Housing: Stainless steel
Bend radius: R25

FOCUSED RECTANGULAR FIBER SENSORS

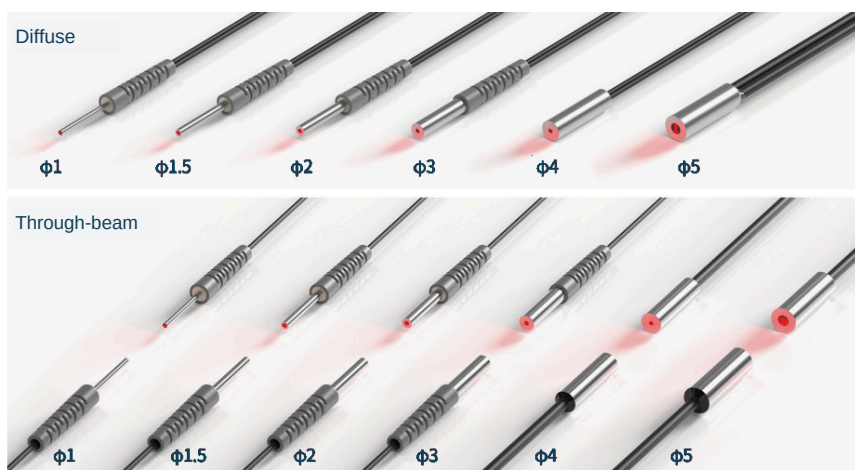


Models	Type	Housing
R1510 / R1510-X / R1310	Diffuse	Plastic
T1510 / T1510-X / T610-J	Through-beam	Plastic / stainless steel

Fiber type: Diffuse / through-beam
Temperature: -10 to +55°C

Housing: See table
Bend radius: R25

SMOOTH BARREL FIBER OPTIC SENSORS



Parameter	Options
Diameters (mm)	1 / 1.5 / 2 / 3 / 4 / 5

Fiber type: Diffuse / through-beam

Temperature: -10 to +55°C

Housing: Stainless steel

Bend radius: R25

ULTRA MINIATURE FLAT FIBER OPTIC SENSORS



Models	Type
Q41 / Q42 / Q43 / Q44 / Q47	Diffuse
Q51 / Q52 / Q53 / Q54 / Q56 / Q57	Through-beam

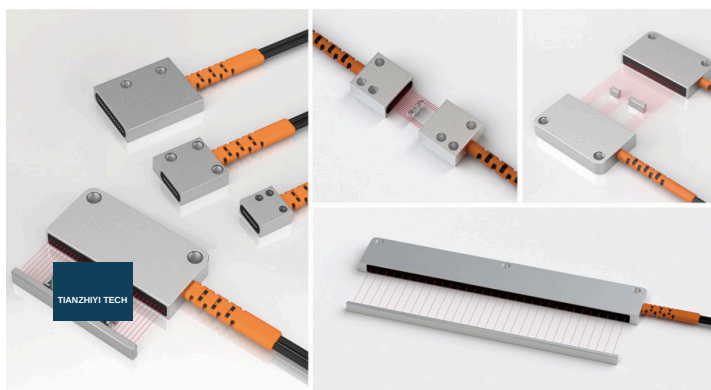
Fiber type: Diffuse / through-beam

Temperature: -10 to +55°C

Housing: Aluminum alloy

Bend radius: R25

STANDARD FIBER OPTIC ARRAYS



Housing size (mm)	Sensing face	Emitting face (mm)
10 x 10	Top	6.2
15 x 15	Top	6.2
15 x 15	Side	6.5
20 x 20	Side	11.3
20 x 20	Top	11.2
19 x 25	Top	11.2
19 x 34	Side	25
19 x 39	Side	30
19 x 44	Side	35
19 x 59	Side	50
19 x 130	Side	120

Fiber type: Diffuse / through-beam

Temperature: -55 to +70°C

Housing: Aluminum

Bend radius: R25

All sizes: diffuse range 120 mm; through-beam range 500 mm.

SPECIAL-FORMAT FIBER OPTIC ARRAYS



Model	Side emitting face (mm)	Diffuse (mm)	Through-beam (mm)
LSD-FU12	11	-	500
LSD-DFA10	11	120	-
LSD-DTA10	11	-	500
LSD-FUE11	8	-	500
LSD-FU57TZ	1	-	500

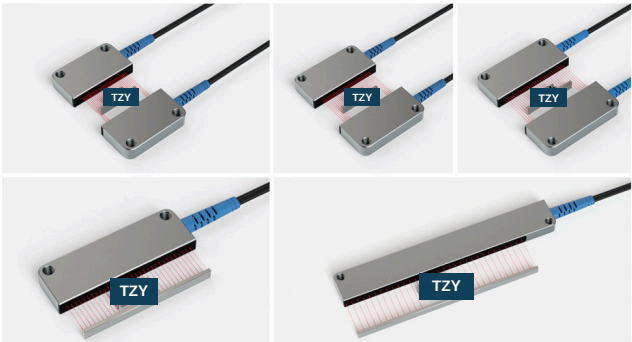
Fiber type: Diffuse / through-beam

Temperature: -55 to +70°C

Housing: Aluminum

Bend radius: R25

PREMIUM FIBER OPTIC ARRAYS



Housing size (mm)	Sensing face	Emitting face (mm)
10 x 10	Top	6.2
15 x 15	Top	6.2
15 x 15	Side	6.5
20 x 20	Side	11.3
20 x 20	Top	11.2
19 x 25	Top	11.2
19 x 34	Side	25
19 x 39	Side	30
19 x 44	Side	35
19 x 59	Side	50
19 x 90	Side	70
19 x 120	Side	100

Fiber type: Diffuse / through-beam

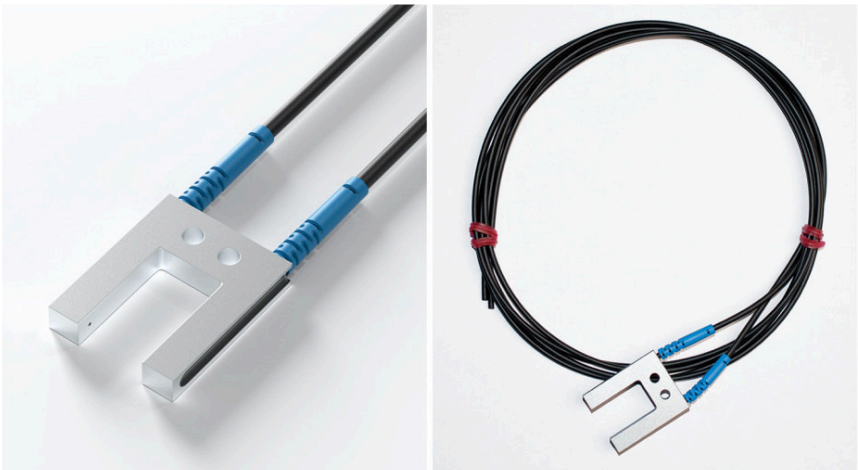
Temperature: -55 to +70°C

Diffuse: 120 mm. Through-beam: 500 mm. Premium side-view versions: uniform high light intensity at 500 mm.

Housing: Aluminum

Bend radius: R25

U SHAPED THROUGH BEAM FIBER OPTIC SENSOR



Model	Type	Housing	Temperature	Bend radius
FU-12	Through-beam	Aluminum alloy	-10 to +55°C	R25

STANDARD FIBER OPTIC FOCUSING LENSES



Model	Compatible fiber / type	Distance / spot (mm)	Temperature
2HA	M3 diffuse	8 / 0.3	-25 to +150°C
T640, adjustable	M3 diffuse	20 / 0.5	-25 to +150°C
T6100, adjustable	M3 diffuse, parallel beam	60 / 3	-25 to +150°C
3HA	M4 diffuse	10 / 0.4	-25 to +150°C
5HA	M3 side-view variable spot	15 / 1	-30 to +70°C
D640	M4 diffuse	40 / 2.4	-25 to +150°C
6HA, adjustable	M6 diffuse	60 / 4	-25 to +150°C
D6100, adjustable	M3 through-beam	90 / 6; 150 / 10; 210 / 14	-25 to +150°C
F-2	M4 through-beam	60 / 9; 120 / 18; 200 / 30	-25 to +150°C

350°C FIBER OPTIC FOCUSING LENSES



Model	Compatible fiber	Distance / spot
FG-4HA	M3 diffuse	15 mm / 0.8 mm
FG-MR2	M4 diffuse	43 mm / 2 mm
FG-2-3.5M	M4 through-beam	50 mm / 5 mm; 100 mm / 7 mm; 3.5 m / -
FG-2-9M	M4 through-beam	20 mm / 4 mm; 50 mm / 10 mm; 9 m / -

Temperature: -40 to +350°C

Compatibility: Matching high-temperature fiber sensors

FIBER OPTIC AMPLIFIERS



Model	Display	Functions
LSD-NSU	No digital display	Simple setup; precision detection; NO/NC switching; stable operation
LSD-FN11	No digital display	Adjustable sensitivity; strong light source; NO/NC adjustment; 40 ms delay
LSD-V11	Single display	Signal amplification and noise resistance; adjustable value; 40/10 ms delay; NO/NC
LSD-NT	Dual display	Approx. 0.1 mm detection; multi-frequency interference rejection; adjustable light saturation; four timer functions; window setting; signal amplification; double-distance mode; NO/NC
ZW-WA1	Dual display, Chinese UI	High-frequency light interference rejection; background suppression; upper/lower window limits; four timer functions; NO/NC

Output: NPN / PNP; NO or NC selectable; NO+NC option

Temperature: -10 to +55°C

Housing: PBT

Supply options depend on model.

Supply: 10-30 / 12-24 V DC, 3/4-wire

Protection: IP65

SPECIALTY FIBER OPTIC AMPLIFIERS



Model	Type	Functions
LSD-C71	Color amplifier	One-button color lock; RGB light source; color recognition; four timer functions
WL-CA11 + LSD-C240	White-light color amplifier	High frequency; one-button setup; four timer functions; detects similar colors and slightly vibrating objects
LV-WA1 + LV200	Diffuse laser amplifier	Long range; small spot; adjustable light intensity; upper/lower window limits; four timers; multi-frequency interference rejection
LSD-V48	RGB digital color amplifier	8-color memory; 4 output channels; distinguishes over 300 colors; multiple detection modes

Output: NPN / PNP; NO/NC switchable

Temperature: -10 to +55°C

Housing: PBT / PC

Supply options depend on model.

Supply: 10-30 / 12-24 V DC, 3/6-wire

Protection: IP65

MINIATURE DIGITAL LASER AMPLIFIER



Model	Features
LSD-NTL	2 mm focused spot; detects 0.5 mm objects; compact fiber head; multiple sizes; functions comparable to standard amplifiers

Output: NPN / PNP; NO/NC switchable

Temperature: -10 to +55°C

Housing: PBT

Supply: 10-30 V DC, 3-wire

Protection: IP65

DEDICATED SENSOR HEADS



Sizes	Type	Housing	Temperature	Bend radius
M3 / M4 / M5 / M6 / M4-TZ / M5-TZ / M6-TZ	Diffuse	Stainless steel / nickel-plated brass	0 to +55°C	R25

SEPARATE DIGITAL INDUCTIVE SENSORS



Model	Flush (mm)	Non-flush (mm)
M8	-	4
M12	-	8
Q17C	8	-

Output: NPN / PNP; NO/NC switchable

Supply: 10-30 V DC, 3-wire

Temperature: Amplifier: -10 to +55°C; head: -25 to +75°C

Protection: IP65 amplifier / IP67 head

Housing: PBT / nickel-plated brass

I-SXN amplifier: threshold adjustment, one-button distance setting, window sensing and multiple delay settings.

SEPARATE DIGITAL CAPACITIVE SENSORS



Model	Flush (mm)	Non-flush (mm)
M12	-	6
Q17C	8	-

Output: NPN / PNP; NO/NC switchable

Supply: 10-30 V DC, 3-wire

Temperature: Amplifier: -10 to +55°C; head: -25 to +75°C

Protection: IP65 amplifier / IP67 head

Housing: PBT / nickel-plated brass

C-SXN amplifier: threshold adjustment, one-button distance setting, window sensing, material-selective sensing and multiple delay settings.

Q25 DIGITAL
CAPACITIVE
PROXIMITY
SENSOR



Model	Flush (mm)	Non-flush (mm)
Q25	20	-

Output: NPN / PNP; NO/NC switchable

Temperature: 0 to +55°C

Housing: PBT

Supply: 10-30 V DC, 3-wire

Protection: IP65



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