

# S300 PR



## HEAVY DUTY SENSOR FOR OUTDOOR APPLICATIONS AND HARSH ENVIRONMENTS

- Industrial plastic housing with IP67 mechanical protection
- Defogging system function
- Double independent timing functions with double time scale from 0-2s or 0-10s, One-Delay, Off Delay, ONE SHOT



### APPLICATIONS

- Packaging end of line, palletizers
- Outdoor or indoor gates control
- Automotive plants
- Automated warehousing

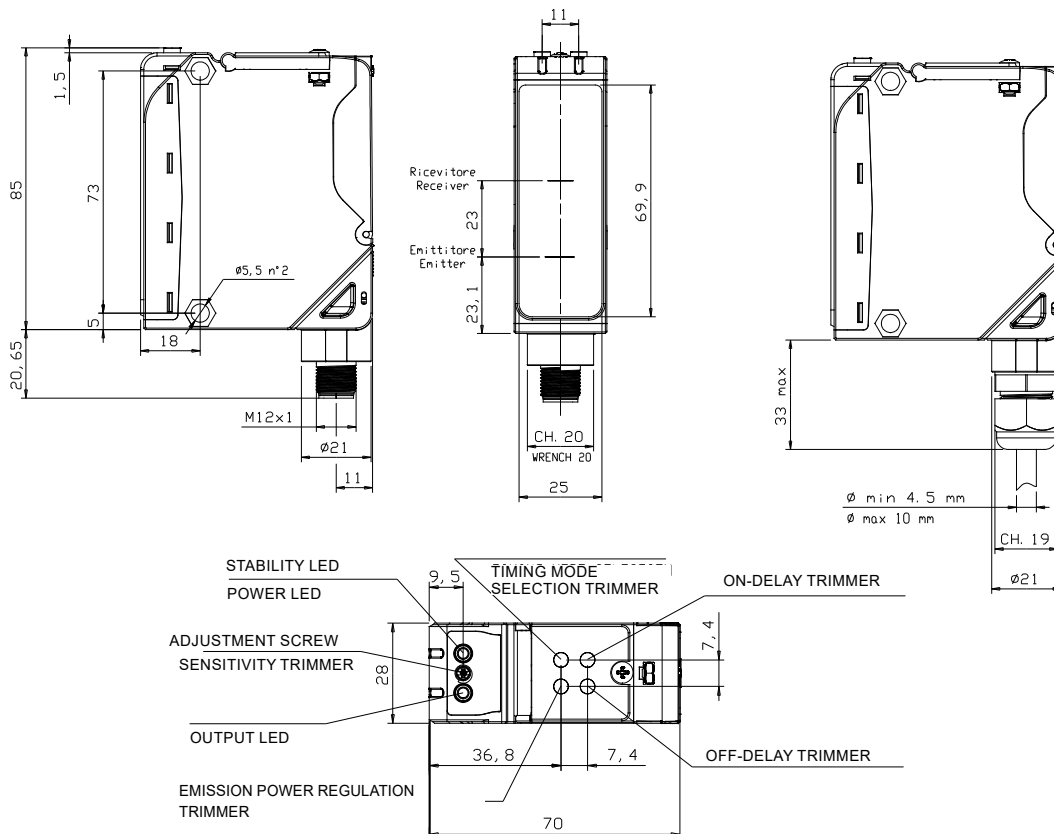
(\*)DC models: ATEX II 3DG

| S300 PA                            |             |                          |
|------------------------------------|-------------|--------------------------|
| <b>Through beam</b>                | 0...60 m    |                          |
| <b>Polarized retroreflective</b>   | 0,1...22 m  |                          |
| <b>Diffuse proximity</b>           | 0,05...5 m  |                          |
| <b>Background suppression</b>      | 0,4...2,5 m |                          |
| <b>Power supply</b>                | Vdc         | 10...30 V                |
|                                    | Vac         |                          |
|                                    | Vac/dc      | 24...240 Vac/24...60 Vdc |
| <b>Output</b>                      | PNP         |                          |
|                                    | NPN         |                          |
|                                    | NPN/PNP     | •                        |
|                                    | relay       | •                        |
|                                    | other       |                          |
| <b>Connection</b>                  | cable       |                          |
|                                    | connector   | •                        |
|                                    | pig-tail    |                          |
| <b>Approximate dimensions (mm)</b> | 25x100x70   |                          |
| <b>Housing material</b>            | PBT         |                          |
| <b>Mechanical protection</b>       | IP67        |                          |

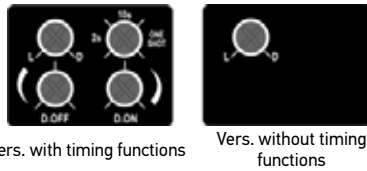
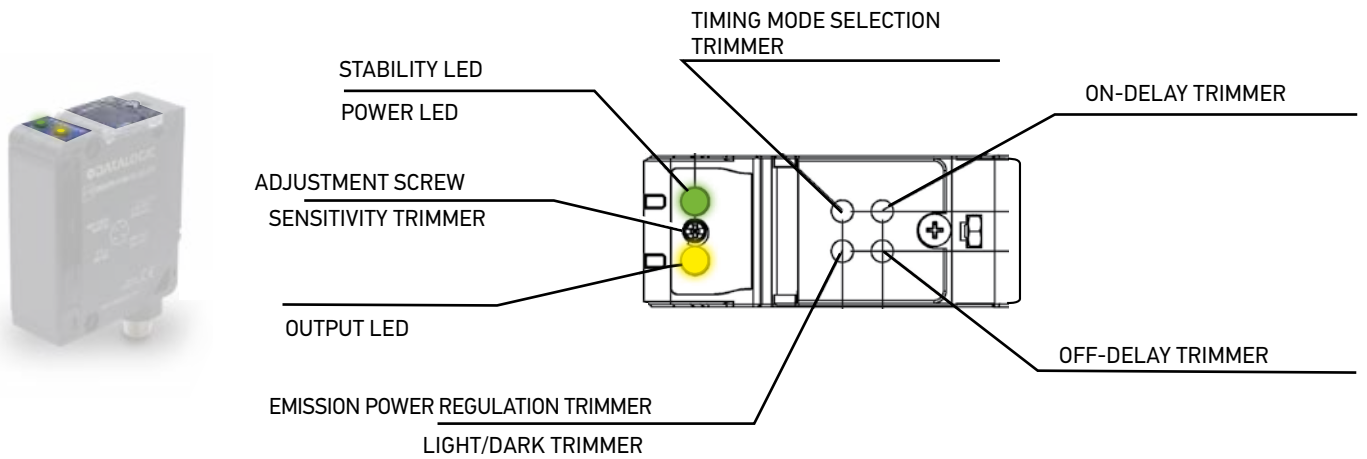
# TECHNICAL DATA

|  |  |
|--|--|
| <b>Power supply</b>                          | 10 ... 30 Vdc (mod. S300...2/5)<br>24...240 Vac/24...60 Vdc (mod. S300...1)  |
| <b>Ripple</b>                                | 10% max.   |
| <b>Consumption (output current excluded)</b> | 30 mA max. (mod. S300...2/5-B/C)<br>35 mA max. (mod. S300...2/5-M)<br>25 mA max. (mod. S300...2/5-F)<br>20 mA max. (mod. S300...2/5-G)<br>3 VA max. (mod. S300...1)<br>red LED 660 nm (mod. S300...B)<br>IR LED 880 nm (mod. S300...C/G/M) |
| <b>Light emission</b>                        | sensitivity trimmer, DARK/LIGHT trimmer (mod. S300...F/C/B)<br>15 turns adjustment screw/DARK/LIGHT trimmer (mod. S300...M)<br>emission power regulation trimmer (mod. S300...G)   |
| <b>Setting</b>                               | versions with timing functions: time base selection and one shot trimmer/ON DELAY trimmer/OFF DELAY trimmer (mod. S300...x06)  |
| <b>Indicators</b>                            | yellow OUTPUT LED (excl. mod. S300...G)<br>green STABILITY LED, POWER LED (mod. S300...G)  |
| <b>Output</b>                                | PNP or NPN open collector (mod. S300...2/5); Electromechanical SPDT 250 Vac/30 Vdc (mod. S300...1)   |
| <b>Output current</b>                        | 100 mA (mod. S300...2/5)<br>3 A max. (mod. S300...1)   |
| <b>Saturation voltage</b>                    | 2,4 V max.   |
| <b>Response time</b>                         | 1 ms (mod. S300...2/5-B/C/F/G)<br>2 ms (mod. S300...2/5-M)<br>20 ms (mod. S300...1)  |
| <b>Switching frequency</b>                   | 500 Hz (mod. S300...2/5-/B/C/F/G)<br>250 Hz (mod. S300...2/5-M)<br>25 Hz (mod. S300...1)   |
| <b>Connection</b>                            | terminal block, M12 4-pole connector (only DC mod.)  |
| <b>Dielectric strength</b>                   | 500 Vac, 1 min between electronics and housing   |
| <b>Insulating resistance</b>                 | >20 MΩ, 500 Vdc between electronics and housing  |
| <b>Electrical protection</b>                 | class 2 (mod. S300...2/5)  |
| <b>Mechanical protection</b>                 | IP67 (IEC/EN60529)/cable gland EN50262   |
| <b>Ambient light rejection</b>               | according to EN 60947-5-2  |
| <b>Vibrations</b>                            | 0,5 mm amplitude, 10 ... 55 Hz frequency, for every axis (EN60068-2-6)   |
| <b>Shock resistance</b>                      | 11 ms (30 G) 6 shock for every axis (EN60068-2-27)   |
| <b>Housing material</b>                      | PBT 30% glass fiber-reinforced   |
| <b>Lens material</b>                         | frontal window and lens in PC  |
| <b>Operating temperature</b>                 | -40 ... 55 °C  |
| <b>Storage temperature</b>                   | -40 ... 70 °C  |
| <b>Weight</b>                                | 140 g (mod. S300...2/5), 150 g (mod. S300...1)   |

# DIMENSIONS



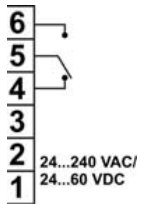
# INDICATORS AND SETTINGS



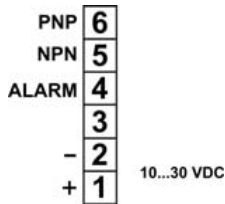
# CONNECTIONS

## TERMINAL BLOCK

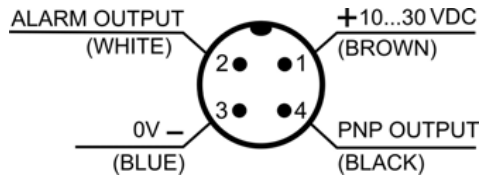
### VAC/VDC MODELS



### VDC MODELS



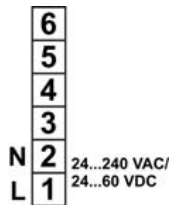
### M12 CONNECTOR (only DC models)



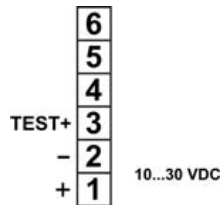
Through beam emitter

## TERMINAL BLOCK

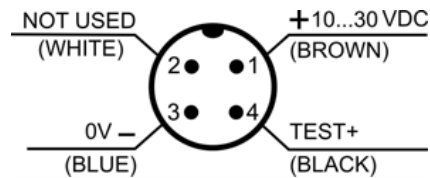
### AC MODELS



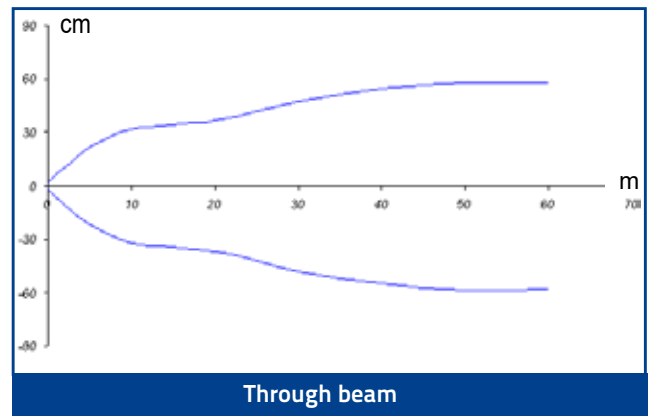
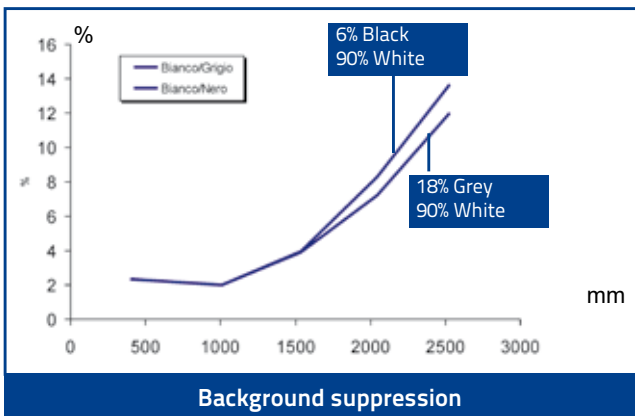
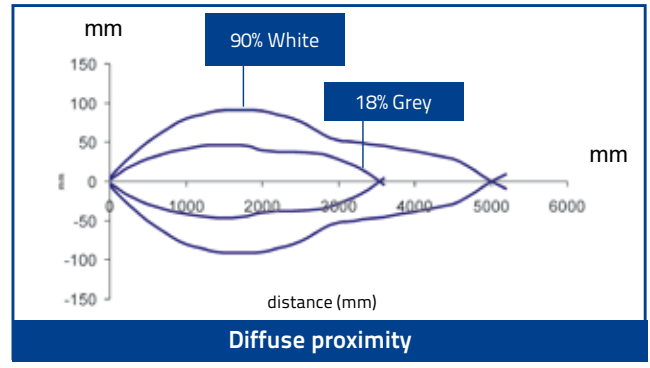
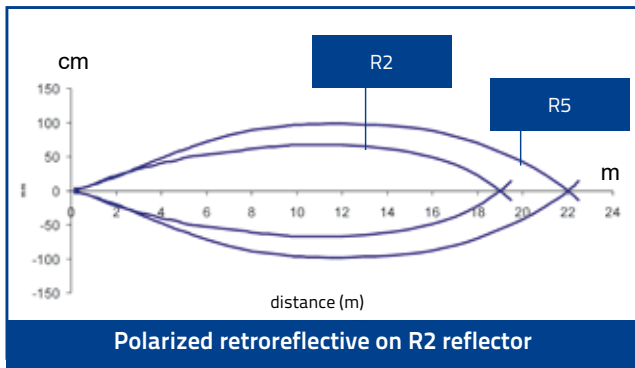
### DC MODELS



### M12 CONNECTOR (only DC models)



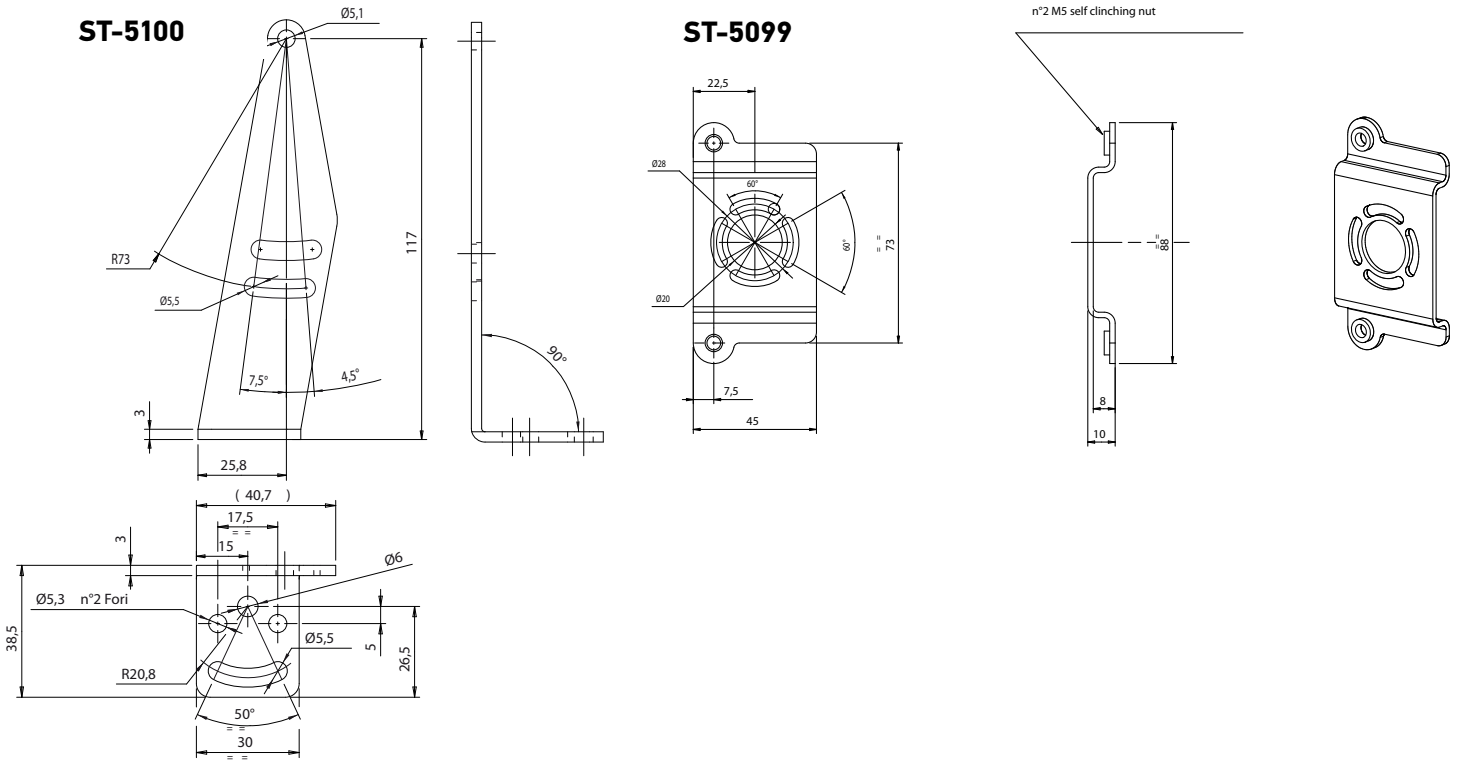
# DETECTION DIAGRAMS



# MODEL SELECTION AND ORDER INFORMATION

| OPTIC FUNCTION            | OUTPUT                | CONNECTION           | SETTING  | MODEL                                | ORDER NO.        |           |
|---------------------------|-----------------------|----------------------|--|--------------------------------------|------------------|-----------|
| Polarized retroreflective | NPN/PNP               | Vdc - Terminal block | Sensitivity and D/L trimmers                             | S300-PR-2-B01-OC                     | 951451000        |           |
|                           |                       |                      | Timing, sensitivity and D/L trimmers                     | S300-PR-2-B06-OC                     | 951451010        |           |
|                           |                       | Vdc - M12 Connector  | Sensitivity and D/L trimmers                             | S300-PR-5-B01-OC                     | 951451020        |           |
|                           |                       |                      | Timing, sensitivity and D/L trimmers                     | S300-PR-5-B06-OC                     | 951451030        |           |
|                           | Relay                 | Vac - Terminal block | Sensitivity and D/L trimmers                             | S300-PR-1-B01-RX                     | 951451040        |           |
|                           |                       |                      | Timing, sensitivity and D/L trimmers                     | S300-PR-1-B06-RX                     | 951451050        |           |
| Diffused proximity        | NPN/PNP               | Vdc - Terminal block | Sensitivity and D/L trimmers                             | S300-PR-2-C01-OC                     | 951451070        |           |
|                           |                       |                      | Timing, sensitivity and D/L trimmers                     | S300-PR-2-C06-OC                     | 951451080        |           |
|                           |                       | Vdc - M12 Connector  | Sensitivity and D/L trimmers                             | S300-PR-5-C01-OC                     | 951451090        |           |
|                           |                       |                      | Timing, sensitivity and D/L trimmers                     | S300-PR-5-C06-OC                     | 951451100        |           |
|                           |                       | Relay                | Vac - Terminal block                                     | Sensitivity and D/L trimmers         | S300-PR-1-C01-RX | 951451110 |
|                           |                       |                      |  | Timing, sensitivity and D/L trimmers | S300-PR-1-C06-RX | 951451120 |
|                           | Through beam receiver | NPN/PNP              | Vdc - Terminal block                                     | Sensitivity and D/L trimmers         | S300-PR-2-F01-OC | 951451210 |
|                           |                       |                      |  | Timing, sensitivity and D/L trimmers | S300-PR-2-F06-OC | 951451220 |
|                           |                       |                      | Vdc - M12 Connector                                      | Sensitivity and D/L trimmers         | S300-PR-5-F01-OC | 951451230 |
|                           |                       |                      |  | Timing, sensitivity and D/L trimmers | S300-PR-5-F06-OC | 951451240 |
| Through beam emitter      | -                     | Vdc - Terminal block | Emission power regulation trimmer                        | Sensitivity and D/L trimmers         | S300-PR-1-F01-RX | 951451250 |
|                           |                       |                      |  | Timing, sensitivity and D/L trimmers | S300-PR-1-F06-RX | 951451260 |
|                           |                       | Vdc - M12 Connector  | Timing, sensitivity and D/L trimmers; defogging function | S300-PR-1-F06-RX-M                   | 951451270        |           |
|                           |                       |                      |  | S300-PR-2-G00-EX                     | 951451280        |           |
|                           |                       | Vac - Terminal block | Defogging function                                       | S300-PR-5-G00-EX                     | 951451290        |           |
|                           |                       |                      |  | S300-PR-1-G00-EX                     | 951451300        |           |
| Background suppression    | NPN/PNP               | Vdc - Terminal block | Sensitivity and D/L trimmers                             | S300-PR-2-M01-OC                     | 951451140        |           |
|                           |                       |                      | Timing, sensitivity and D/L trimmers                     | S300-PR-2-M06-OC                     | 951451150        |           |
|                           |                       | Vdc - M12 Connector  | Sensitivity and D/L trimmers                             | S300-PR-5-M01-OC                     | 951451160        |           |
|                           |                       |                      | Timing, sensitivity and D/L trimmers                     | S300-PR-5-M06-OC                     | 951451170        |           |
|                           | Relay                 | Vac - Terminal block | Sensitivity and D/L trimmers                             | S300-PR-1-M01-RX                     | 951451180        |           |
|                           |                       |                      | Timing, sensitivity and D/L trimmers                     | S300-PR-1-M06-RX                     | 951451190        |           |
|                           |                       |                      | Timing, sensitivity and D/L trimmers; defogging function | S300-PR-1-M06-RX-M                   | 951451200        |           |

# ACCESSORIES



| MODEL   | DESCRIPTION      | ORDER No. |
|---------|------------------|-----------|
| ST-5099 | mounting BRACKET | 95ACC2830 |
| ST-5100 | mounting BRACKET | 95ACC2840 |

# CABLES

| TYPE                 | DESCRIPTION                     | LENGTH                | MODEL         | ORDER No. |
|----------------------|---------------------------------|-----------------------|---------------|-----------|
| Axial M12 Connector  | 4-pole, grey, P.V.C.            | 3 m                   | CS-A1-02-G-03 | 95A251380 |
|                      |                                 | 5 m                   | CS-A1-02-G-05 | 95A251270 |
|                      |                                 | 7 m                   | CS-A1-02-G-07 | 95A251280 |
|                      |                                 | 10 m                  | CS-A1-02-G-10 | 95A251390 |
|                      | 4-pole, P.U.R.                  | 2 m                   | CS-A1-02-R-02 | 95A251540 |
|                      |                                 | 5 m                   | CS-A1-02-R-05 | 95A251560 |
| Radial M12 Connector | 4-pole, grey, P.V.C.            | 3 m                   | CS-A2-02-G-03 | 95A251360 |
|                      |                                 | 5 m                   | CS-A2-02-G-05 | 95A251240 |
|                      |                                 | 7 m                   | CS-A2-02-G-07 | 95A251245 |
|                      |                                 | 10 m                  | CS-A2-02-G-10 | 95A251260 |
|                      | 4-pole, P.U.R.                  | 2 m                   | CS-A2-02-R-02 | 95A251550 |
|                      |                                 | 5 m                   | CS-A2-02-R-05 | 95A251570 |
| Axial M12 Connector  | 4-pole, shielded, black, P.V.C. | 3 m                   | CV-A1-22-B-03 | 95ACC1480 |
|                      |                                 | 5 m                   | CV-A1-22-B-05 | 95ACC1490 |
|                      |                                 | 10 m                  | CV-A1-22-B-10 | 95ACC1500 |
|                      |                                 | 15 m                  | CV-A1-22-B-15 | 95ACC2070 |
|                      |                                 | 25 m                  | CV-A1-22-B-25 | 95ACC2090 |
| Radial M12 Connector | 4-pole, shielded, black, P.V.C. | 3 m                   | CV-A2-22-B-03 | 95ACC1540 |
|                      |                                 | 5 m                   | CV-A2-22-B-05 | 95ACC1550 |
|                      |                                 | 10 m                  | CV-A2-22-B-10 | 95ACC1560 |
| Axial M12 Connector  | 4-pole, U.L., black, P.V.C.     | 3 m                   | CS-A1-02-U-03 | 95ASE1120 |
|                      |                                 | 5 m                   | CS-A1-02-U-05 | 95ASE1130 |
|                      |                                 | 10 m                  | CS-A1-02-U-10 | 95ASE1140 |
|                      |                                 | 15 m                  | CS-A1-02-U-15 | 95ASE1150 |
|                      |                                 | 25 m                  | CS-A1-02-U-25 | 95ASE1160 |
| Radial M12 Connector | 4-pole, black                   | Connector- not cabled | CS-A1-02-B-NC | G5085002  |
| Radial M12 Connector | 4-pole, black                   | Connector- not cabled | CS-A2-02-B-NC | G5085003  |



## DATALOGIC PRODUCT OFFERING



Sensors



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scanners



Mobile Computers



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Systems



Safety Laser  
Scanner



Vision  
Systems



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Industrial  
Scanners



Safety Light  
Curtains