

Safety Light Curtains for point-of-operation protection

| TYPICAL APPLICATIONS |                                                                         | RESOLUTION                             | APPROVALS | ELECTRICAL CONNECTION | DIMENSIONS OF THE PROTECTED AREA |                           |                   |                           |            |                |               |                |               |                           |                         |                      |                             |        |           |                      |                        |         |          |                     |
|----------------------|-------------------------------------------------------------------------|----------------------------------------|-----------|-----------------------|----------------------------------|---------------------------|-------------------|---------------------------|------------|----------------|---------------|----------------|---------------|---------------------------|-------------------------|----------------------|-----------------------------|--------|-----------|----------------------|------------------------|---------|----------|---------------------|
|                      |                                                                         |                                        |           |                       | SCANNING RANGE (m/ft)            | PROTECTION HEIGHT (mm/in) | Automatic restart | Start & Restart interlock | Test input | FSD monitoring | Response time | Static outputs | Relay outputs | Self-diagnostic indicator | Output status indicator | Cross-talk reduction | Blanking/Reduced resolution | Muting | Cascading | Single/double stroke | Weld splash protection | Sealing | Voltages |                     |
| TYPE 4               | Compact Type 4 light curtain with static safety outputs                 | Heavy industry and material conversion |           |                       |                                  |                           |                   |                           |            |                |               |                |               |                           |                         |                      |                             |        |           |                      |                        |         |          | FF-SYA14 / FF-SYA30 |
|                      |                                                                         |                                        |           |                       |                                  |                           |                   |                           |            |                |               |                |               |                           |                         |                      |                             |        |           |                      |                        |         |          |                     |
| TYPE 4               | Compact Type 4 light curtain with static safety outputs                 | Heavy industry and material conversion |           |                       |                                  |                           |                   |                           |            |                |               |                |               |                           |                         |                      |                             |        |           |                      |                        |         |          | FF-SG18 / FF-SG30   |
|                      |                                                                         |                                        |           |                       |                                  |                           |                   |                           |            |                |               |                |               |                           |                         |                      |                             |        |           |                      |                        |         |          |                     |
| TYPE 4               | Harsh-duty Type 4 self-contained light curtain with relay outputs       | Heavy industry and material conversion |           |                       |                                  |                           |                   |                           |            |                |               |                |               |                           |                         |                      |                             |        |           |                      |                        |         |          | FF-SB12 / FF-SB14   |
|                      |                                                                         |                                        |           |                       |                                  |                           |                   |                           |            |                |               |                |               |                           |                         |                      |                             |        |           |                      |                        |         |          |                     |
| TYPE 4               | Type 4 light curtain with separate control unit and blanking capability | Heavy industry and material conversion |           |                       |                                  |                           |                   |                           |            |                |               |                |               |                           |                         |                      |                             |        |           |                      |                        |         |          | DETECTOR™ 3         |
|                      |                                                                         |                                        |           |                       |                                  |                           |                   |                           |            |                |               |                |               |                           |                         |                      |                             |        |           |                      |                        |         |          |                     |

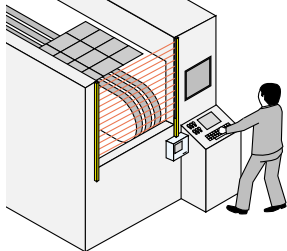
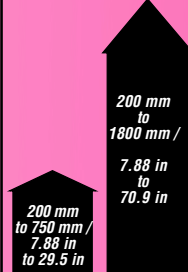
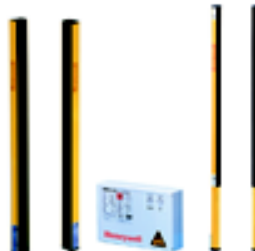
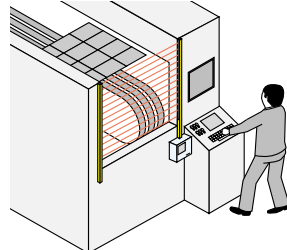
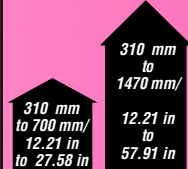
Through external accessory

On specific models, with increased response time

□ Through external accessory

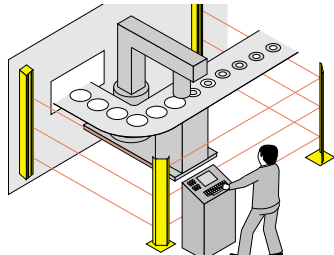
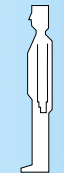
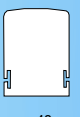
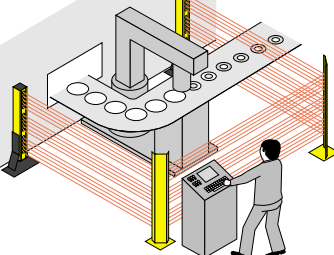
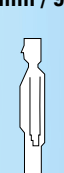
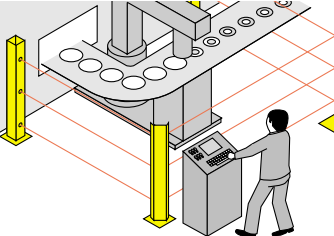
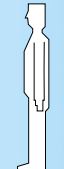
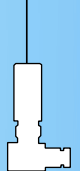
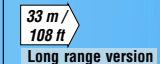
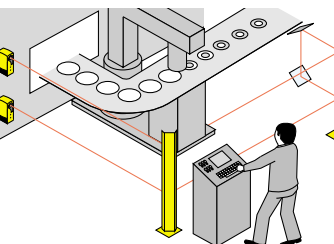
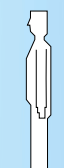
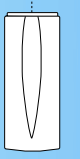
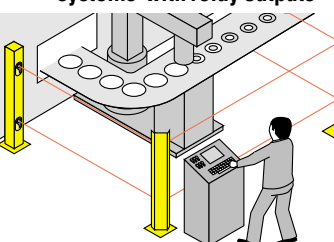
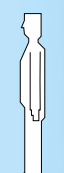
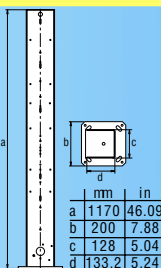
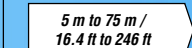
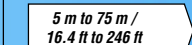
① On specific models, with increased response time

Safety Light Curtains for point-of-operation protection

|        | TYPICAL APPLICATIONS                                                                                                                                                    | RESOLUTION                                                                                                                                                                                                                  | APPROVALS                                                                                                                                                                                                                                              | ELECTRICAL CONNECTION                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                     | DIMENSIONS OF THE PROTECTED AREA                                                                                                                         |                                                                                                                                                                                                    |                                                                                                                                                                                                      |                           |            |                |               |                |               |                           |                         |                      |                             |        |           |                      |                        |         |         |   |   |                                                                                                          |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------------|----------------|---------------|----------------|---------------|---------------------------|-------------------------|----------------------|-----------------------------|--------|-----------|----------------------|------------------------|---------|---------|---|---|----------------------------------------------------------------------------------------------------------|
|        |                                                                                                                                                                         |                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                     | SCANNING RANGE<br>(m/ft)                                                                                                                                 | PROTECTION HEIGHT<br>(mm/in)                                                                                                                                                                       | Automatic restart                                                                                                                                                                                    | Start & Restart interlock | Test input | FSD monitoring | Response time | Static outputs | Relay outputs | Self-diagnostic indicator | Output status indicator | Cross talk detection | Blanking/reduced resolution | Muting | Cascading | Single/double stroke | Weld splash protection | Sealing | Voltage |   |   |                                                                                                          |
| TYPE 4 | <b>Slim line Type 4 light curtain with separate control unit and relay outputs</b><br> | <b>Light industry</b> <ul style="list-style-type: none"><li>• Paper cutting machines</li><li>• Pick-and-place robots</li><li>• Light electronic assembly machines</li><li>• Goods lifts</li><li>• Small carousels</li></ul> | <br>FINGER DETECTION<br>ø14 mm / 0.55 in<br><br>HAND DETECTION<br>ø30 mm / 1.18 in | <br>Approved as<br><b>Type 4</b><br>per pr EN 50100 - 1/2                                                                                                       | • M8 connectors<br><br><b>FF-LS14</b><br><br>23 mm x 35 mm / 0.90 in x 1.38 in<br><br><b>FF-LS30</b><br><br>19 mm x 12 mm / 0.74 in x 0.47 in | <br>3.5 m / 11.48 ft<br><b>FF-LS14 / FF-LS30</b>                      | <br>200 mm to 1800 mm / 7.88 in to 70.9 in<br>200 mm to 750 mm / 7.88 in to 29.5 in<br><b>FF-LS14 / FF-LS30</b> | ■                                                                                                                                                                                                    | ■                         | ■          | ■              | 50 ms         | 2 NO<br>1 NC   | ■             | ■                         | ■                       | ■                    | ■                           | ■      | ■         | ■                    | ■                      | ■       | ■       | ■ | ■ | FF-LS14 / FF-LS30<br> |
|        | TYPE 2                                                                                                                                                                  | <b>Compact Type 2 light curtain with static safety outputs</b><br>                                                                         | <b>Heavy industry and material conversion</b> <ul style="list-style-type: none"><li>• Moulding and thermoforming machines</li><li>• Electronic assembly</li><li>• Assembly lines</li><li>• Textile, packaging machines</li></ul>                       | <br>FINGER DETECTION<br>ø18 mm / 0.7 in<br><br>HAND DETECTION<br>ø30 mm/1.2 in | <br>Approved as<br><b>Type 2</b><br>per IEC/EN 61496 - 1/2                                                                                                                                                                       | • M12 (8 pin) connectors<br><br><br>55 mm x 42 mm / 2.16 in x 1.65 in | <br>4 m / 13.12 ft<br><b>FF-SLG18/FF-SLG30</b>                                                                  | <br>310 mm to 1470 mm/ 12.21 in to 57.91 in<br>310 mm to 700 mm/ 12.21 in to 27.58 in<br><b>FF-SLG18/FF-SLG30</b> | ■                         | ■          | ■              | ■             | 15 to 21.5ms   | ■             | ■                         | ■                       | ■                    | ■                           | ■      | ■         | ■                    | ■                      | ■       | ■       | ■ | ■ | ■                                                                                                        |

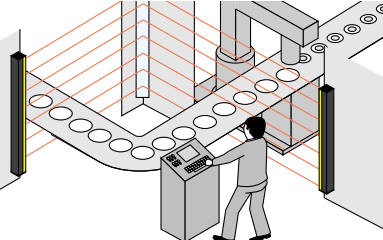
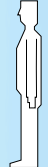
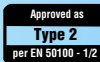
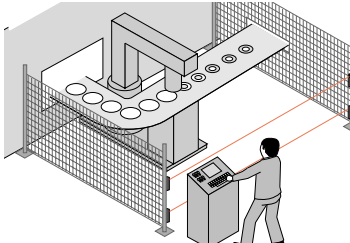
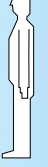
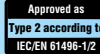
□ Through external accessory

Multiple Light Beams for Access Detection to Hazardous Areas

|        | TYPICAL APPLICATIONS                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                    | NUMBER OF BEAMS                                                                                                                                                             | APPROVALS                                                                             | ELECTRICAL CONNECTION                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                      | DIMENSIONS OF THE PROTECTED AREA                                                      |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                 |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------------|
|        |                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                             |                                                                                       | DIMENSIONS                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                      |                                                                                       |                                                                                       | SCANNING RANGE (m/ft)                                                                 | PROTECTION HEIGHT (mm/in)                                                             | Automatic restart                                                                     | Start & Restart interlock                                                             | Test input                                                                            | FSD monitoring                                                                        | Response time                                                                         | Static outputs                                                                        | Relay outputs                                                                         | Self-diagnostic indicator                                                             | Output status indicator                                                               | Cross-talk detection reduction                                                        | Muting                                                                                | Weld splash protection                                                                |                 |
| TYPE 4 | <b>Compact Type 4 multibeam system with static safety outputs</b><br>                                   | <b>Heavy industry and material conversion</b> <ul style="list-style-type: none"><li>Access detection for:<ul style="list-style-type: none"><li>- Robotic and transfer areas</li><li>- Machinery centers</li><li>- Palletising areas</li><li>- Storage and stacking areas</li></ul></li><li>Max. length of a U-shaped perimeter: 64 m / 210 ft</li></ul>                            | <b>2, 3 or 4 beams</b><br><br><br>BODY DETECTION according to EN 999                      |    | <ul style="list-style-type: none"><li>• M12 (5 pin, 8 pin)</li><li>• DIN 43651 plugs</li><li>• Brad Harrison Mini-Change® plugs</li><li>• Terminal strips (cable glands)</li></ul>  |                                                                                                                                                                                                                                                                                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | FF-SYA234       |
|        |                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                             |                                                                                       |                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                      |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                 |
| TYPE 4 | <b>Harsh-duty Type 4 self-contained light curtain with relay outputs</b><br>                            | <b>Heavy industry and material conversion</b> <ul style="list-style-type: none"><li>Access detection for:<ul style="list-style-type: none"><li>- Robotic and transfer areas</li><li>- Machinery centers</li><li>- Palletising areas</li><li>- Storage and stacking areas</li></ul></li><li>Max. length of a U-shaped perimeter: 19 m / 62.32 ft</li></ul>                          | <b>2, 3 or 4 beams</b><br>ø235 mm / 9.25 in<br><br><br>BODY DETECTION according to EN 999 |    | <ul style="list-style-type: none"><li>• Metal connectors DIN 43652</li></ul>                                                                                                        |                                                                                                                                                                                                                                                                                   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    | FF-SB15         |
|        |                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                             |                                                                                       |                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                      |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                 |
| TYPE 4 | <b>Type 4 modular light curtain with M18 sensors and separate control unit with relay outputs</b><br> | <b>Heavy industry and material conversion</b> <ul style="list-style-type: none"><li>Access protection on palletising areas</li><li>Access detection of areas containing robots or automatic machines</li><li>Detection of automatic guided vehicles</li><li>Thermoforming, agglomerating and moulding press</li><li>Max. length of a U-shaped perimeter: 27 m / 88.56 ft</li></ul> | <b>2 to 8 beams</b><br><br><br>BODY DETECTION according to EN 999                       |  | <ul style="list-style-type: none"><li>• Connectors Hirschmann ELWIKA</li></ul>                                                                                                    | <br>                                                                                                                                                                                       | <b>2 to 8 beams</b>                                                                   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | FF-SCAN         |
|        |                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                             |                                                                                       |                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                      |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                 |
| TYPE 4 | <b>Compact Type 4 self-contained single beam with relay outputs</b><br>                               | <b>Heavy industry and material conversion</b> <ul style="list-style-type: none"><li>Access detection of perimeter protection around a robot zone, trip device at the entrance and the exit of a paint shop, etc.</li><li>Access detection at the rear of a press brake</li><li>Max. length of a U-shaped perimeter: 19 m / 62.32 ft</li></ul>                                      | <b>1 beam</b><br><br><br>BODY DETECTION according to EN 999                             |  | <ul style="list-style-type: none"><li>• Metal connector DIN 43652</li><li>• Terminal strips</li></ul>                                                                             | <br>                                                                                                                                                                                       | <b>1 beam</b>                                                                         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | FF-SPS4         |
|        |                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                             |                                                                                       |                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                      |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                                                                                       |                 |
| TYPE 4 | <b>Harsh-duty Type 4 access detection systems with relay outputs</b><br>                              | <b>Heavy industry and material conversion</b> <ul style="list-style-type: none"><li>Access detection for perimeter protection around a robot zone, trip device at the entrance and the exit of a paint shop, etc.</li><li>Access detection at the rear of a press brake</li><li>Max. length of a U-shaped perimeter: 60 m / 196.8 ft</li></ul>                                     | <b>2 or 3 beams</b><br><br><br>BODY DETECTION according to EN 999                       |  | <ul style="list-style-type: none"><li>• Metal connector DIN 43652</li></ul>                                                                                                       | <br><br><br><br> |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | FF-SPS4 systems |

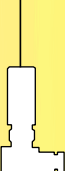
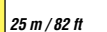
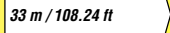
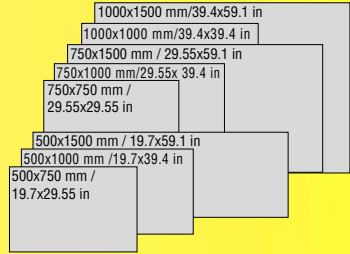
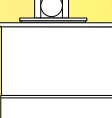
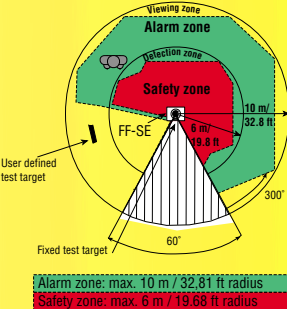


Multiple Light Beams for Access Detection into Low Risk Areas

|        | TYPICAL APPLICATIONS                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                               | RESOLUTION                                                                                                                              | APPROVALS                                                                                                                                                                                                                                                                                                                                                | ELECTRICAL CONNECTION                                                                                                                              | DIMENSIONS OF THE PROTECTED AREA |                                  |                                          |                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                             |                |               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                           |                         |          |           |         |         |  |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|----------------------------------|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-------------------------|----------|-----------|---------|---------|--|
|        |                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                          | DIMENSIONS                                                                                                                                         |                                  |                                  | Automatic restart                        | Start & Restart interlock                                                                                                                                                                                                                                   | Test input                                                                                                                                                                                                                                                  | FSD monitoring | Response time | Relay outputs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Self-diagnostic indicator | Output status indicator | Muting   | Cascading | Sealing | Voltage |  |
| TYPE 2 | Type 2 light curtain with separate control unit and relay outputs<br> | Light industry and material conversion, transportation and storage: <ul style="list-style-type: none"><li>• Access detection for robotic areas</li><li>• Access detection in transfer areas</li><li>• Perimetric protection</li><li>• Max. length of a U-shaped perimeter: 8 m / 26.2 ft</li></ul>                                                            | 3 to 9 beams<br><br>BODY DETECTION<br>ø184 mm/7.24 in  | <br><br><br> | • Hirschmann connector<br><br>70 mm x 50 mm / 2.75 in x 1.97 in |                                  | 12 m / 39.4 ft                   | 600 mm to 1100 mm / 23.64 in to 43.34 in |    |    | 28 to 30 ms    | 2 NO + 1 NC   |                         | IP 65 NEMA 4              | Sensors: 24 Vac/dc      | FF-SLC18 |           |         |         |  |
| TYPE 2 | Type 2 single beam with separate control unit and relay outputs<br>   | Light industry and material conversion, transportation and storage: <ul style="list-style-type: none"><li>• Access detection for robotic areas :</li><li>• Packaging OEMs</li><li>• Textile Machinery Industries</li><li>• Automated industrial warehousing systems</li><li>• Handling, palletising/de-palletising systems</li><li>• Assembly lines</li></ul> | 1 to 4 beams<br><br>BODY DETECTION according to EN 999 | <br><br>                                                                                        | • M8 connector<br><br>25 mm x 15 mm / 0.98 in x 0.59 in         |                                  | 0.8 m to 6 m / 2.6 ft to 16.7 ft | 1 to 4 beams                             |    |    | 28 to 30 ms    | 2 NO + 1 NC   |                         | IP 65 NEMA 4              | Sensors: 24 Vdc         | FF-SLB   |           |         |         |  |

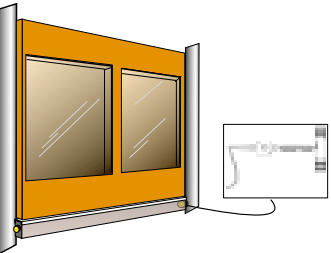
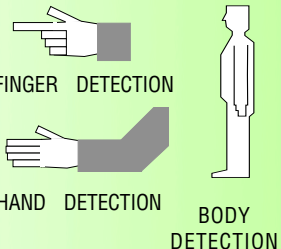
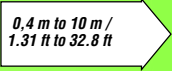
□ Through external accessory

Electro-Sensitive Protective Equipment for Presence Detection in Hazardous Areas

| TYPICAL APPLICATIONS |                                                                                            | RESOLUTION                                  | APPROVALS                                                                                                                                                                                                                                                                                         | ELECTRICAL CONNECTION                                                                                                                                                                                                                                          | DIMENSIONS OF THE PROTECTED AREA                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                           |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                     |                                                          |                                                                                                     |                                                                                                    |                                                                                                    |
|----------------------|--------------------------------------------------------------------------------------------|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|                      |                                                                                            |                                             |                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                |                                                                                                                                                                                  | SCANNING RANGE (m/ft)                                                                                                                                                                                                                                                                                                                                                       | PROTECTION HEIGHT (mm/in)                                                                                                                                                                                                                                                                                                                                              | Automatic restart                                                                                                                                                                                                                                                         | Start & Restart interlock           | Test input                          | FSD monitoring                      | Response time                       | Static outputs                      | Relay outputs                       | Self-diagnostic indicator           | Output status indicator             | Cross-talk detection reduction      | Muting                              | Cascading                           | Weld splash protection              | Sealing                             | Voltage                                                  |                                                                                                     |                                                                                                    |                                                                                                    |
| TYPE 4               | Compact Type 4 light curtain with static safety outputs                                    | Heavy industry and material conversion      | <ul style="list-style-type: none"><li>• Presence control for:<ul style="list-style-type: none"><li>- Robotic and transfer areas</li><li>- Machinery centers</li><li>- Palletizing areas</li><li>- Storage and stacking areas</li></ul></li></ul>                                                  | <br><br>BODY DETECTION<br>ø60 mm / 2.36 in                                                                                                                                   | <br><br>Approved as<br>Type 4<br>per IEC/EN 61496-1/2                                         | <ul style="list-style-type: none"><li>• M12 (5 pin, 8 pin)</li><li>• DIN 43651 plugs</li><li>• Brad Harrison Mini-Change® plugs</li><li>• Terminal strips (cable glands)</li></ul> <br>60 mm x 42 mm/<br>2.36 in x 1.65 in                                                               | <br>20 m / 65.6 ft                                                                                                                                                                                                                                                                  | <br>320 mm to 1760 mm /<br>25.2 in to 63.04 in                                                                                                                                         | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 14 ms to 23 ms                      | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | IP 65<br>NEMA 4                     | 24 Vdc                                                   | <br><br>FF-SYA60 | FF-SYA                                                                                             |                                                                                                    |
|                      | Type 4 modular light curtain with M18 sensors and separate control unit with relay outputs | Heavy industry and material conversion      | <ul style="list-style-type: none"><li>• Protection on palletising areas</li><li>• Presence control of areas containing robots or automatic machines</li><li>• Detection of automatic guided vehicles</li><li>• Thermoforming, agglomerating and moulding presses</li></ul>                        | <br><br>BODY DETECTION<br>according to EN 999                                                                                                                                | <br><br>Approved as<br>Type 4<br>per pr EN 50100 - 1/2                                        | <ul style="list-style-type: none"><li>• Connectors Hirschmann ELWIK</li></ul> <br>99 mm x Ø18 mm/<br>3.9 in x 0.7 in                                                                                                                                                                     | <br>25 m / 82 ft                                                                                                                                                                                                                                                                    | <br>33 m / 108.24 ft                                                                                                                                                                   | 2 to 8 beams                        | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 30 ms                               | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <b>Sensors:</b><br>IP 67<br>NEMA 6                       | 120 Vac<br>230 Vac<br>24 to 48 Vdc                                                                  |                                                                                                    | <br><br>FF-SCAN |
| CAT.3 / CAT.4        | Category 3 Pressure sensitive mat and separate control unit with relay outputs             | Heavy industry and material conversion      | <ul style="list-style-type: none"><li>• Presence sensing device for the control of dangerous areas such as robot areas, automotive transfer lines</li><li>• Additional protection for optoelectronic trip devices</li><li>• Suitable for cutting oils, welding splashes, shavings, etc.</li></ul> | <br><br>BODY DETECTION<br>Sensitivity<br>≥ 30 kg/66 lbs                                                                                                                    | <br><br>EN 1760<br>Mat<br>Category 3<br>EN 954-1<br>Control unit:<br>Category 4<br>EN 954-1 | <ul style="list-style-type: none"><li>• Terminal strips (cable glands) for control unit</li><li>• Fiber optic cables for safety mat</li></ul><br><ul style="list-style-type: none"><li>• Max. surface per control unit: 6 m²/64.5 ft²</li><li>• Width: ≤ 20 mm/0.78 in</li><li>• Dimensions of the control unit:<br/>211 x 211 x 96 mm/<br/>8.31 x 8.31 x 3.78 in</li></ul> | Standard dimensions available:<br><br>1000x1500 mm/39.4x59.1 in<br>1000x1000 mm/39.4x39.4 in<br>750x1500 mm / 29.55x59.1 in<br>750x1000 mm/29.55x 39.4 in<br>750x750 mm / 29.55x29.55 in<br>500x1500 mm / 19.7x59.1 in<br>500x1000 mm /19.7x39.4 in<br>500x750 mm / 19.7x29.55 in | <input checked="" type="checkbox"/>                                                                                                                                                                                                                                       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 25 ms                               | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <b>Sensor:</b><br>IP 67<br><b>Control unit:</b><br>IP 65 | 120 Vac<br>240 Vac<br>24 Vdc                                                                        | <br><br>FF-SM | FF-SM                                                                                              |
|                      | TYPE 3                                                                                     | Category 3 laser scanner with relay outputs | Light industry                                                                                                                                                                                                                                                                                    | <ul style="list-style-type: none"><li>• Ground level trip device</li><li>• Industrial robot areas</li><li>• Automatically guided vehicles</li><li>• For the control of large areas of any shape</li><li>• Suitable for relatively clean environments</li></ul> | <br><br>BODY DETECTION<br>ø70 mm / 2.75 in                                                   | <br><br>Approved as<br>Type 3 according to<br>IEC/EN 61496-1/2                                                                                                                                                                                                                         | <ul style="list-style-type: none"><li>• Binder cordset (5 m/ 16.4 ft) for power and signal</li><li>• Binder RS232 cordset (3 m/9.84 ft) for PC connection</li></ul> <br>172 x 176 x 107 mm/<br>6.77 x 6.93 x 4.21 in                                                              | <br>Viewing zone<br>Alarm zone<br>Safety zone<br>User defined test target<br>Fixed test target<br>Alarm zone: max. 10 m / 32.81 ft radius<br>Safety zone: max. 6 m / 19.68 ft radius | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 280 ms                              | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | IP 65                                                    | 24 Vdc                                                                                              | <br><br>FF-SE | FF-SE                                                                                              |

☐ Through external accessory

Safety Sensitive Edges

| CATEGORY 4             | TYPICAL APPLICATIONS                                                              |                                                                                                                                                                                                                                                                        | DETECTION CAPABILITY                                                               | APPROVALS                                                                           | ELECTRICAL CONNECTION                                                                                                                                                                                      | DIMENSIONS OF THE PROTECTED ZONE<br>SCANNING RANGE (m/ft)                           |                                                                                     |                                                                                     |                                                                                     |                                                                                     |       |   |      |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                           |        |                                                                                     |  |
|------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------|---|------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------|--------|-------------------------------------------------------------------------------------|--|
|                        |                                                                                   |                                                                                                                                                                                                                                                                        |                                                                                    |                                                                                     | DIMENSIONS                                                                                                                                                                                                 |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |       |   |      |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                           |        |                                                                                     |  |
|                        |                                                                                   |                                                                                                                                                                                                                                                                        |                                                                                    |                                                                                     |                                                                                                                                                                                                            |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |       |   |      |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                           |        |                                                                                     |  |
| Safety Sensitive Edges |  | <ul style="list-style-type: none"><li>Industrial doors (sectional doors, sliding doors, etc.)</li><li>- Machine guards and doors</li><li>- Auto-Guided vehicle</li><li>- Automatic handling systems or manipulators (robots, material feeding systems, etc.)</li></ul> |  |  | Electrical Connection:<br>3 wires                                                                                                                                                                          |  |  |  |  |  | 32 ms | 1 | 2 NO |  |  |  |  | <b>Sensors:</b><br>IP 68<br><b>Control unit:</b><br>IP 40 | 24 Vdc |  |  |
|                        |                                                                                   |                                                                                                                                                                                                                                                                        |                                                                                    |                                                                                     | <ul style="list-style-type: none"><li><b>Sensors:</b><br/>37 mm x 11,5 mm /<br/>145 in x 0.45 in</li><li><b>Control unit:</b><br/>22,5 mm x 11 mm<br/>x 120 mm / 0.88 in<br/>x 0.43 in x 0.02 in</li></ul> |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |       |   |      |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                           |        |                                                                                     |  |
| FF-SD                  |                                                                                   |                                                                                                                                                                                                                                                                        |                                                                                    |                                                                                     |                                                                                                                                                                                                            |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                                                     |       |   |      |                                                                                     |                                                                                     |                                                                                     |                                                                                     |                                                           |        |                                                                                     |  |

Non Contact Safety Switches

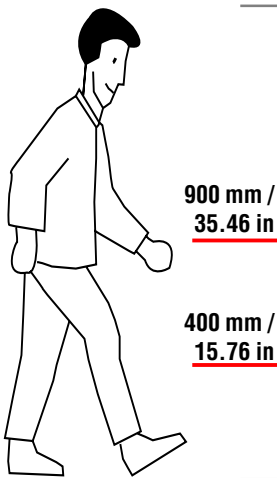
| CATEGORY 3                          | TYPICAL APPLICATIONS |                                                                                                                                                                                                                                                                                                                                                                                                              | DETECTION CAPABILITY                                                                                  | APPROVALS                                                                                                         | ELECTRICAL CONNECTION             | FUNCTION                                                                                                                                                                                                       |                                                                                                                                                   |   |   |    |   |       |    |             |   |   |                                             |                       |        |                            |        |
|-------------------------------------|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|---|---|----|---|-------|----|-------------|---|---|---------------------------------------------|-----------------------|--------|----------------------------|--------|
|                                     |                      |                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                       |                                                                                                                   | DIMENSIONS                        |                                                                                                                                                                                                                |                                                                                                                                                   |   |   |    |   |       |    |             |   |   |                                             |                       |        |                            |        |
|                                     |                      |                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                       |                                                                                                                   |                                   |                                                                                                                                                                                                                |                                                                                                                                                   |   |   |    |   |       |    |             |   |   |                                             |                       |        |                            |        |
| Safety magnetic multi-sensor system |                      | <ul style="list-style-type: none"><li>Interlocking guards for non-locked mechanical screens offering free access</li><li>Machine door or casing position detection</li><li>Guard-in-place detection, gate or access door detection</li><li>Control of mechanical screens used in addition to a safety light curtain</li><li>Meet the requirements of the following industries: Food &amp; Beverage</li></ul> | Operating range:<br>5 mm - 7 mm /<br>0.20 in - 0.27 in ON,<br>8 mm - 12 mm /<br>0.32 in - 0.47 in OFF | <div>CE</div> <div>UL</div> <div>Available for interfaces up to Category 3 per EN 954-1</div> <div>TUV NORD</div> | Electrical Connection:<br>2 wires | <ul style="list-style-type: none"><li>FF-SNC200R2/<br/>FF-SNC1EXT<br/>W: 22,5/0.88<br/>H: 84/3.30<br/>D: 119/4.68</li><li>FF-SNC400R2/<br/>FF-SNC400RE<br/>W: 75/2.95<br/>H: 74/2.91<br/>D: 119/4.68</li></ul> | <ul style="list-style-type: none"><li>Tamper resistant keyed magnetic field actuated sensors</li><li>Multi-sensor safety control module</li></ul> | ■ | ■ | NA | ■ | 15 ms | NA | 2 NO + 1 NC | ■ | □ | Sensors:<br>IP 67<br>Control unit:<br>IP 40 | 24 Vac/Vdc<br>110 Vac | FF-SNC | <div>New</div> <div></div> | FF-SNC |



## ACCESS DETECTION

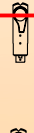
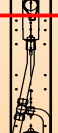
## IN DANGEROUS AREAS

**2 BEAMS (OR EQUIVALENT) ACCESS DETECTION SOLUTIONS (EN 999 STANDARD)**

| Body detection                                                                    | Integrated safety light curtain<br>FF-SYA60                                                                                       | Integrated multibeam safety<br>light curtain FF-SB15                                                |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| <b>Advantages</b>                                                                 | <ul style="list-style-type: none"> <li>• Compact housing</li> <li>• Static outputs</li> <li>• Good cross-talk immunity</li> </ul> | <ul style="list-style-type: none"> <li>• Integrated advanced functions</li> <li>• Robust</li> </ul> |
| <b>Type according to IEC/EN 61496-1</b>                                           | Type 4                                                                                                                            | Type 4                                                                                              |
|  |                                                  |                  |
| <b>References</b>                                                                 | FF-SYA60064C2 (24 Vdc)                                                                                                            | FF-SB15E/R064-S2 (24 V)<br>FF-SB15E/R06K-S2 (120/240 V)                                             |
| <b>Scanning range (straight line)</b>                                             | 20 m / 65 ft                                                                                                                      | 24 m / 78.72 ft                                                                                     |
| <b>L-shaped mirror for perimetric protection</b>                                  | 1x FF-SLC06MIR (range: 14 m / 45.9 ft)<br>1x FF-SBSMIR06 (range: 18 m / 59.04 ft)                                                 | 1x FF-SBZ02MIR (range: 21,5 m / 70.52 ft)<br>1x FF-SBSMIR06 (range: 21,5 m / 70.52 ft)              |
| <b>U-shaped mirror for perimetric protection</b>                                  | 2x FF-SLC06MIR (range: 10 m / 32.8 ft)<br>2x FF-SBSMIR06 (range: 16 m / 52.48 ft)                                                 | 2x FF-SBZ02MIR (range: 19,5 m / 63.96 ft)<br>2x FF-SBSMIR06 (range: 19,5 m / 63.96 ft)              |

### 3 BEAMS (OR EQUIVALENT) ACCESS DETECTION SOLUTIONS (EN 999 STANDARD)

|                                                  |                                                                                                 |                                                                                                      |
|--------------------------------------------------|-------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
|                                                  |                                                                                                 |                                                                                                      |
| <b>References</b>                                | <b>FF-SYA60096C2</b> (24 Vdc)                                                                   | <b>FF-SB15E/R104-S2</b> (24 V)<br><b>FF-SB15E/R10K-S2</b> (120/240 V)                                |
| <b>L-shaped mirror for perimetric protection</b> | 1x <b>FF-SLC09MIR</b> (range: 14 m / 45.9 ft)<br>1x <b>FF-SBSMIR10</b> (range: 18 m / 59.04 ft) | 1x <b>FF-SBZ03MIR</b> (range: 21,5 m / 70.52 ft)<br>1x <b>FF-SBSMIR10</b> (range: 21,5 m / 70.52 ft) |
| <b>U-shaped mirror for perimetric protection</b> | 2x <b>FF-SLC09MIR</b> (range: 10 m / 32.8 ft)<br>2x <b>FF-SBSMIR10</b> (range: 16 m / 52.48 ft) | 2x <b>FF-SBZ03MIR</b> (range: 19,5 m / 63.96 ft)<br>2x <b>FF-SBSMIR10</b> (range: 19,5 m / 63.96 ft) |
| <b>Options</b>                                   | Interface control module<br>FF-SRS59392<br>Muting FF-SRM100P2                                   | Muting FF-SRM100P2                                                                                   |

| <b>Multibeam safety light curtain FF-SLC18 and separate control unit</b>                         | <b>Safety single beam FF-SPS4 + mirrors</b>                                                                           | <b>FF-SPS4 Columns</b>                                                                                         |
|--------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• Low cost solution</li> <li>• Compact housing</li> </ul> | <ul style="list-style-type: none"> <li>• Small housing</li> <li>• Long range</li> <li>• Flexible placement</li> </ul> | <ul style="list-style-type: none"> <li>• Robust</li> <li>• Floor mounting</li> <li>• Easy alignment</li> </ul> |
| Type 2                                                                                           | Type 4                                                                                                                | Type 4                                                                                                         |
|               |                                    |                             |
|               |                                    |                             |
| <b>FF-SLC18062 + FF-SLU100R2 (24 V)</b>                                                          | <b>FF-SPS44TR2 (24 V)</b><br><b>FF-SPS44TRE (120 V)</b><br><b>FF-SPS44TRG (240 V)</b>                                 | <b>FF-SPS4ERX□□ + FF-SPZ12MIR (20 m / 65.6 ft)</b><br><b>FF-SPS4EEX□□-1 + FF-SPS4RRX□□-1 (75 m / 246 ft)</b>   |
| 12 m / 39.4 ft                                                                                   | 40 m or 75 m / 131.2 ft or 246 ft                                                                                     | 8 m, 20 m or 75 m / 26.24 ft, 65.6 ft or 246 ft                                                                |
| 1x <b>FF-SLC06MIR</b> (range: 9 m / 29.52 ft)<br>1x <b>FF-SBSMIR06</b> (range: 11 m / 36.08 ft)  | 1x <b>FF-SCZ02MIR</b> (range: up to 56 m / 183.68 ft)                                                                 | 1x <b>FF-SCZ02MIR</b> (range: up to 56 m / 183.68 ft)                                                          |
| 2x <b>FF-SLC06MIR</b> (range: 7 m / 22.96 ft)<br>2x <b>FF-SBSMIR06</b> (range: 9,5 m / 31.16 ft) | 2x <b>FF-SCZ02MIR</b> (range: up to 42 m / 137.76 ft)                                                                 | 2x <b>FF-SCZ02MIR</b> (range: up to 42 m / 137.76 ft)                                                          |

|                                                                                                                |                                                                                                                                         |                                                                                                                       |
|----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
|  <p>870 mm / 34.27 in</p> |                                                    |                                  |
| <p><b>FF-SLC18092 +<br/>FF-SLU100R2 (24 V)</b></p>                                                             | <p><b>FF-SPS44TR2 (24 V)<br/>FF-SPS44TRE (120 V)<br/>FF-SPS44TRG (240 V)</b></p>                                                        | <p><b>FF-SPS4EM1□-□ + FF-SPS4RM1□-□<br/>(8 m / 26.24 ft)</b></p>                                                      |
| <p>1x <b>FF-SLC09MIR</b> (range: 9 m / 29.52 ft)<br/>1x <b>FF-SBSMIR10</b> (range: 11 m / 36.08 ft)</p>        | <p>1x <b>FF-SCZ03MIR</b> (range: up to 56 m / 183.68 ft)</p>                                                                            | <p><b>FF-SPS4RER□-1 + FF-SPS4ERE□-1 (75 m / 246 ft)</b><br/>1x <b>FF-SCZ03MIR</b> (range: up to 56 m / 183.68 ft)</p> |
| <p>2x <b>FF-SLC09MIR</b> (range: 7 m / 22.96 ft)<br/>2x <b>FF-SBSMIR10</b> (range: 9,5 m / 31.16 ft)</p>       | <p>2x <b>FF-SCZ03MIR</b> (range: up to 42 m / 137.76 ft)</p>                                                                            | <p>2x <b>FF-SCZ03MIR</b> (range: up to 42 m / 137.76 ft)</p>                                                          |
| <p>Muting FF-SLM200R2<br/>(replaces the FF-SLU100R2)</p>                                                       | <p>Muting FF-SRM100P2<br/>Mirror FF-SPZ01MIR (10 % scanning range reduction)<br/>Mirror FF-SPZ11MIR (25 % scanning range reduction)</p> | <p>Muting FF-SRM100P2</p>                                                                                             |

## HONEYWELL 压力传感器

公司由传感器销售部、仪表销售部、工程部和总务部四个部组成。我公司是美国霍尼韦尔（HONEYWELL）公司中国区指定的专业代理商, 传感器部 2000 年成为美国 HONEYWELL 中国区指定代理商。专业销售 HONEYWELL 传感与控制部产品（Sensing and Control）我们不仅销售给客户最合适的产品同时也积极的为客户的开发工作提供帮助及解决客户在应用中所遇到的困难。为了更加方便用户，我们长期备有大量现货。传感器的应用十分广泛。通过我们几年来的努力，我们已经在 HAVE，医疗，马达控制，航空航天，财务设备，汽车仪表，阀门控制，车辆导航，气象仪器，色谱分析，水电煤气表等行业有了较好的业绩。这些都源于我们有一个优秀的团队，传感部目前有 10 多名销售工程师，90%都是大专以上学历，且长期服务于自动化行业第一线。有着丰富的经验。我司还代理美国 ICSensors, MSI 的传感器, 变送器。我部门专业从事传感器的销售, 有专业人员为您提供售后服务。HONEYWELL, MSI, ICSensors, MOTOROLA 的 24PC, 26PC, SCC, SX, ASDX, XPCL, XSSL, XSCL, SLP, CPC, SDX, SCX, HPX, 40PC, 4040PC, SDXL, SCXL, DCXL, DUXL, DC, PPT, MLH, ST, EC; MSP300, MSP310, MSP320, MSP400, MSP600, US300, US600; 1451 型, 1471 型, 1210A 型, 1220A 型, 1230A 型, 1240A 型, 13 型, 23 型, 33 型, 43 型, 17 型, 27 型, 37 型, 47 型, 84 型, 85 型, 154N 型, MPX 全系列系列正被广泛的应用到医疗器械, 环保, 水处理工程, HVAC, 仪器仪表, 航空航天, 自动控制系统。

产品或服务: (HONEYWELL, MSI, ICSensors, MOTOROLA) 压力传感器, 霍尔传感器, 弱磁传感器, 流量传感器, 电流传感器, 温度传感器, 液位传感器, 湿度传感器, 红外传感器, 齿轮传感器, 触力传感器, 及工业开关类产品。

主要价格优势产品: HONEYWELL 传感器, 变送器; MSI, ICSensors 传感器, 变送器, MOTOROLA 传感器。

### AWM40000 系列气体质量流量传感器

[▶ 点击此处进入产品详细说明](#)



AWM40000 系列放大输出气体质量流量传感器, 多个集中安装 / O 形密封圈, 陶瓷流量管 (无引气管), 0-1000sccm, 塑料流量管 (无引气管), 0-6SLPM, 高共模压力 (150psi), 工作温度可至 125℃, 零点和满量程高稳定性<br>

### MLH 系列压力传感器 (Honeywell)

[▶ 点击此处进入产品详细说明](#)

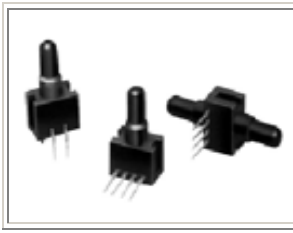


MLH 型压力传感器结合了应用特殊集成电路 (ASIC) 技术中的最新技术以及证明可靠的隔离介质的金属隔膜设计。MLH 型压力传感器全部进行补偿, 校准和放大, MLH 可适用于 50psi-8000psi 的压力范围。

### 24PC 系列差压, 表压和绝压传感器 (进口)

[▶ 点击此处进入产品详细说明](#)





24PC 系列差压，表压和绝压/无放大，无补偿，2mA 恒流供电可以显著的改善灵敏度温飘，可以测量负压，正压，绝压。

#### 40PC 系列 压力传感器

▶ [点击此处进入产品详细说明](#)



最新的经济型 40PC 产品是由 Honeywell/MicroSwitch 分部推出的最小体积放大压力传感器。完全校整和温度补偿，是霍尼韦尔压力产品中最坚固、适用温度最宽的传感器。另外，40PC 可与很大范围的介质兼容，从干燥空气和水到冷却液和机油。40PC 提供模拟放大信号输出，传感器利用了独创的单硅片的设计，把所有温度补偿、输出零点、满量程校整、放大功能集中在一块硅片中。

#### 26PC 系列 差压，表压传感器

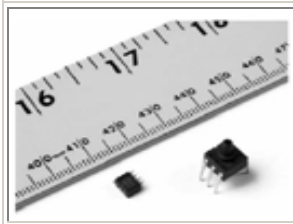
▶ [点击此处进入产品详细说明](#)



专利的导电密封弹性连接系统消除了传统的导线粘结和带状连接，增加了介质的测量兼容性，专利的结构导致了多样化的测量孔形式，最低价格的带温度补偿和校整的小型封装压力传感器，不同的引脚可选（1X4 或 2X2），可以测量负压、正压，激光刻蚀电阻保证极好的器件一致性

#### HPX 系列压力传感器

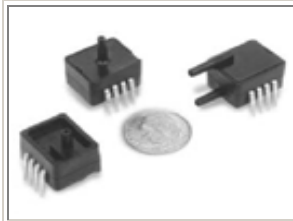
▶ [点击此处进入产品详细说明](#)



微型封装尺寸，可供表压型和绝压型，不带补偿和校准，压力范围自 0psi 至 100psi，响应时间一般为 1mS，两种封装形式：DIP 和 SOIC（双列式封装和小型集成电路），工作温度范围宽，表面贴装和通孔安装

#### ASDX 压力传感器

▶ [点击此处进入产品详细说明](#)



传感器可以用来测量绝压差压和表压，范围从 1psi（ASDX01DN）到 100psi（ASDX100）。绝压传感器具有一个内部的真空标准，其输出电压与绝对压力成正比。差压传感器允许将压力施加在检测膜片的两边，可以用在表压和差压的测量中。

### HONEYWELL 传感器型号大全

## 详细资料:

我公司长期提供以下型号的传感器。

### 开关量霍尔

103SR11A-1, 103SR12A-1, 103SR13A-1, 103SR14A-1, 103SR17A-1,  
103SR18A-1, 2SS52M, 2SS52M-S, SR13C-A1, SR13D-A1, SR13F-A1, SR13R-A1,  
SR15C-A3, SR16C-J6, SRC17C-J6, SR3F-A1, SR3B-A1, SR3G-A1, SR3C-A1,  
SR4P2-A1, SS11, SS11T, SS111A, SS113A, SS141A, SS143A, SS149A, SS161A,  
SS166A, SS41, SS411A, SS413A, SS441A, SS443A, SS449A, SS461A, SS466A,  
SS51T, SS500, SS526DT。

### 模拟量霍尔

103SR3F-5, SS49, SS19, SS19T, SS495A, SS495A1, SS495A2, SS94A1,  
SS94A1B, SS94A1E, SS94A1F, SS94A2, SS94A2C, SS94A2D, SS94B1。

### 内置磁铁霍尔传感器

2AV54, 1GT101DC, GTN1A111, GTN1A112, GTN1A113, GTN1A114, GTN1A115,  
GTN1A116, GTN1A117, GTN1A211, GTN1A131, VX10, VX80, VX10-A1, VX80-A1,  
VX10-A2, VX80-A2, VX10-A3, VX80-A3, VX10-B1, VX80-B1, VX10-C1, VX80-C1,  
RPN1A112。

### 带放大压力传感器

142PC01D, 142PC02D, 142PC03D, 142PC05D, 142PC15D, 142PC30D, 142PC15A,  
142PC30A, 142PC30G, 141PC01D, 141PC02D, 141PC03D, 141PC05D, 141PC15D,  
141PC30D, 143PC01D, 143PC02D, 143PC03D, 143PC05D, 143PC15D, 143PC30D,  
141PC01G, 141PC02G, 141PC05G, 142PC01G, 142PC02G, 142PC03G, 142PC05G,  
142PC15G, 163PC01D36, 163PC01D48, 163PC01D75, 164PC01D76, 163PC01D37,  
163PC01D76, 161PC01D36, 162PC01D36, 164PC01D36, 189PC15GM,  
189PC100GM, 189PC150GM, ASCX01DN, ASCX05DN, ASCX15AN, ASCX15DN,  
ASCX30AN, ASCX30DN, ASCX100AN, ASCX100DN, ASCX150DN, ASCX150AN,  
ASDX015A24R, ASDX030A24R, ASDX100A24R, ASDX001G24R, ASDX005G24R,  
ASDX015G24R, ASDX020G24R, ASDX100G44R, ASDX001D44R, ASDX005D44R,  
ASDX015D44R, ASDX030D44R, ASDX100D44R, 40PC001G2A, 40PC015G2A,  
40PC100G2A, 40PC150G2A, 40PC250G2A, 40PC500G2A, 4040PC001G5D,  
4040PC015G5D, 4040PC100G5D, 4040PC150G5D, 4040PC250G5D,  
4040PC500G5D。

### 无带放大压力传感器

26PCCFG5G, 26PC01SMT, 26PC05SMT, 26PC15SMT, 24PCAFA6G, 24PCBFA6G,  
24PCCFA6G, 24PCDFA6G, 24PCEFA6G, 24PCFFA6G, 24PCGFA6G, 24PCAFA6D,  
24PCBFA6D, 24PCCFA6D, 24PCDFA6D, 24PCEFA6D, 24PCFFA6D, 24PCGFA6D,  
24PCCFD6A, 24PCGFH6G, 26PCAFA6G, 26PCBFA6G, 26PCCFA6G, 26PCDFA6G,  
26PCFFA6G, 26PCAFA6D, 26PCBFA6D, 26PCCFA6D, 26PCDFA6D, 26PCFFA6D,

1865-01G-KDN, 1865-02G-KDN, 1865-03G-KDN, 1865-05G-KDN,  
1865-07G-KDN, 1865-01G-LDN, 1865-02G-LDN, 1865-03G-LDN,  
1865-05G-LDN, 1865-07G-LDN, 1800-00G-KOL-B, 1800-01G-KOL-B,  
1800-02G-KOL-B, 1800-03G-KOL-B, 1800-07G-KOL-B, 1800-08G-KOL-B,  
1800-09G-KOL-B, 1800-10G-KOL-B, 1800-00D-K4L-B, 1800-01D-K4L-B,  
1800-02D-K4L-B, 1800-03D-K4L-B, 1800-04D-K4L-B, 1800-00D-K4L-C,  
1800-08D-K4L-B, 1800-08D-K4L-C, SCC15ASMT, SCC30ASMT, SCC100ASMT,  
SCC300ASMT, SCC05GSMT, SCC15GSMT, SCC30GSMT, SCC100GSMT, SCC300GSMT,  
SCC15ASMT, SCC30ASMT, SCC15GSMT, SCC05GSMT, SCC30GSMT, SCC05D,  
SCC15D, SCC30D, SCC100D, SCC15A, SCC30A, SCC100A, SCC05DN, SCC15DN,  
SCC30DN, SCC100DN, SCC05AN, SCC15AN, SCC30AN, SCC100AN, SCC05GS0,  
SCC15GS0, SCC30GS0, SCC100GS0, SCC15AH0, SCC30AH0, SCC100AH0,  
SCC300AH0, SCC05DP1, SCC15DP1, SCC30DP1, SCC15AP1, SCC30AP1, SCC05GD2,  
SCC15GD2, SCC30GD2, SCC100GD2, SCC15AD2, SCC30AD2, SCC100AD2,  
SCC05DD4, SCC15DD4, SCC30DD4, SCC100DD4, SCX01DN90, SCX05DN90,  
SCX15DN90, SCX30DN90, SCX100DN90, SCX150DN90, SCX01DNC90, SCX05DNC90,  
SCX15DNC90, SCX30DNC90, SCX100DNC90, SCX150DNC90, SCX01ANC90,  
SCX05ANC90, SCX15ANC90, SCX30ANC90, SCX100ANC90, SCX150ANC90,  
SCX01AN90, SCX05AN90, SCX15AN90, SCX30AN90, SCX100AN90, SCX150AN90,  
SDX15A2, SDX15A4, SDX30A2, SDX30A4, SDX100A2, SDX100A4, SDX01G2,  
SDX05G2, SDX15G2, SDX30G2, SDX100G2, SDX01D4, SDX05D4, SDX15D4,  
SDX30D4, SDX100D4, SDX01D4-A, SDX05D4-A, SDX15D4-A, SDX30D4-A,  
SDX100D4-A, SDX01G2-A, SDX05G2-A, SDX15G2-A, SDX30G2-A, SDX100G2-A,  
SDX15A2-A, SDX15A4-A, SDX30A2-A, SDX30A4-A, SDX100A2-A, SDX100A4-A,  
SX7001D, SX7005D, SX7015D, SX7030D, SX7100D, SX7150D, SX7300D, SX01D,  
SX05D, SX15D, SX30D, SX100D, SX150D, SX15A, SX30A, SX100A, SX150A,  
SX01DP1, SX05DP1, SX15DP1, SX30DP1, SX15AP1, SX30AP1, SX01DN, SX05DN,  
SX15DN, SX30DN, SX100DN, SX15AN, SX30AN, SX100AN, SX150AN, SX01GS0,  
SX05GS0, SX15GS0, SX30GS0, SX100GS0, SX150GS0, SX15AH0, SX30AH0,  
SX100AH0, SX150AH0, SX01GD2, SX05GD2, SX15GD2, SX30GD2, SX100GD2,  
SX01DD4, SX05DD4, SX15DD4, SX30DD4, SX100DD4, SX15AD4, SX30AD4,  
SX100AD4, SX15AD2, SX30AD2, SX100AD2。

#### 微压传感器

CPCL04DC, CPCL10DC, CPCL04DFC, CPCL10DFC, CPXL04DFC, CPXL10DFC,  
CPXL01DC, CPXL10DC, XPCL04DC, XPCL10DC, XPCL04DTC, XPCL10DTC, XPX50D,  
XPXL04DC, XPXL10DC, XPXL04DTC, XPXL10DTC, XSXL04D, XSXL10D, XSCL04DC,  
XSCL10DC, SDXL005D4, SDXL010D, SLP004D, SLP010D, DCXL01DN, DCXL05DN,  
DCXL10DN, DCXL20DN, DCXL30DN, DC001NDC4, DC002NDC4, DC005NDC4,  
DC010NDC4, DC020NDC4, DC030NDC4, DC001NDR4, DC002NDR4, DC005NDR4,  
DC010NDR4, DC020NDR4, DC030NDR4, DC001NDR5, DC002NDR5, DC005NDR5,  
DC010NDR5, DC020NDR5, DC030NDR5, DC2R5BDC4, DC005BDC4, DC075BDC4,  
DUXL01D, DUXL05D, DUXL10D, DUXL20D, DUXL30D。

#### 高精度智能压力传感器

HPB100, HPB200, HPA100, HPA200, PPT-R, PPT0015AWN2VA-A, RDD100。



闭环线性电流

CSNA111, CSNB121, CSNB131, CSNC241, CSNE151, CSNE151-100, CSNF163,  
CSNF173, CSNP661, CSNP661-002, CSNT651, CSNT651-001, CSNF161,  
CSNF161-002, CSNF151, CSNF151-001, CSNR161, CSNR161-002, CSNR151,  
CSNJ481, CSNJ481-001, CSNJ481-002, CSNJ481-003, CSNK591, CSNK591-001,  
CSNK591-002, CSNK591-003, CSNE151-100, CSNX25DTS,

开关型电流

CSDA1BA, CSDA1BC, CSDC1BA, CSDC1BC, CSDA1AA, CSDA1AC, CSDC1AA, CSDC1AC,  
CSDC1DA, CSDA1DA, CSDC1DC, CSDD1EC, CSDD1EE, CSDD1EF, CSDD1EG, CSDD1EH,  
CSLH3A45。

开环线性电流

CSLA1CD, CSLA1CE, CSLA1DE, CSLA1CF, CSLA1DG, CSLA1CH, CSLA1DJ, CSLA1EJ,  
CSLA1DK, CSLA1EK, CSLA1EL, CSLA2CD, CSLA2CE, CSLA2DE, CSLA2CF, CSLA2DG,  
CSLA2DJ, CSLA2DH, CSLA2EJ, CSLA2DK, CSLA2EL, CSLA2EM, CSLA2EN, CSLA1GD,  
CSLA1GE, CSLA1GF, CSLA2GD, CSLA2GE, CSLA2GF, CSLA2GG。

气体流量质量传感器

AWM2100V, AWM2150V, AWM2200V, AWM2300V, AWM720P1, AWM3100V, AWM3200V,  
AWM3150V, AWM3300V, AWM42150VH, AWM42300V, AWM43300V, AWM43600V,  
AWM5101VN, AWM5102VN, AWM5103VN, AWM5104VN, FRN11112, FRN21112,  
FRN12212, FRN22212。

磁阻传感器

HMC1001, HMC1002, HMC1021, HMC1021Z, HMC1021S, HMC1023, HMC1052,  
HMC1501, HMC1512, HMC2003, HMR2300, HMR2300R, HMR3000, HMR3100,  
HMR3200, HMR3300。

温度传感器

HEL-700-U-O-A, HEL-700-U-O-B, HEL-700-U-O-C, HEL-700-T-O-A,  
HEL-700-T-O-B, HEL-700-T-O-C, HEL-700-U-1-A, HEL-700-U-1-B,  
HEL-700-U-1-C, HEL-700-T-1-A, HEL-700-T-1-B, HEL-700-T-1-C,  
HEL-775-A-U-0, HEL-775-A-U-1, HEL-775-A-T-0, HEL-775-A-T-1,  
HEL-775-B-U-0, HEL-775-B-U-1, HEL-775-B-T-0, HEL-775-B-T-1,  
HEL-776-A-U-0, HEL-776-A-U-1, HEL-776-A-T-0, HEL-776-A-T-1,  
HEL-777-A-U-0, HEL-777-A-U-1, HEL-777-A-T-0, HEL-777-A-T-1, TD4A,  
TD5A。

湿度传感器

HIH3610-003, HIH3602-L-CP, HIH3602-A, HIH3602-C,

液位传感器

LLE102000, LLE105000, LL101000, LL102000, LL103000, LL104000,  
LL105000, LL101101, LL102101, LL103101, LL10401, LL105100, LL20500-1,  
LL205102-1, LL305002-1, LRNH31S42, LRNH51S42。

混浊度传感器

APMS-10GRCF, APMS-10GRCF-50, APMS-10GRCF-18, APMS-10GRCF-KIT。

触力传感器

FSG-15N1A, FSL05N2C

MOTOROLA 压力传感器

MPX10D MPX10DP MPX10GP MPX10GS MPXV10GC6U MPXV10GC7U MPX12D MPX12DP  
MPX12GP MPX2010D MPX2010DP MPX2010GP MPXT2010G7U MPX2050D MPX2050DP  
MPX2050GP MPX2050GVP MPX2050GS MPX2050GSX MPX2050GVSX MPX2053D  
MPX2053DP MPX2053GP MPX2100A MPX2100DP MPX2100AP MPX2100AS  
MPX2100ASX MPX2102A MPX2102D MPX2102DP MPX2102AP MPX2102GP  
MPX2102GVP MPX2200A MPX2200D MPX2200DP MPX2200AP MPX2200GP MPX2200A  
MPX2200D MPX2200DP MPX2200AP MPX2200GP MPX21002A MPX2102D MPX2102DP  
MPX2102AP MPX2102GP MPX2102GVP MPX2200A MPX2200D MPX2200DP  
MPX2200AP MPX2200GP MPX2201GP MPX2300DT1 MPX4080D MPX4100A  
MPXA4100A6U MPX4100AP MPXA4100A6U MPX4100AS MPX4101A MPXA4101AC6U  
MPX4105A MPX4115A MPXA4115A6U MPX4115AP MPXA4115AC6U MPX4115AS  
MPX4200A MPX4200AP MPX4200SA MPX4200ASX MPX4250A MPX4250AP  
MPX4250A6U MPXA4250A6T1 MPXA4250AC6U MPXA4250AC6T1 MPX4250D  
MPX4250GP MPX4250DP MPX5010D MPX5010DP MPX5010GP MPX5010GS  
MPX5010GSX MPXV5010G6U MPXV5010G7U MPXV5010GC6U/T1 MPXV5010GC7U  
MPX5050D MPX5050DP MPX5050GP MPX5100A MPX5100D MPX5100DP MPX5100AP  
MPX5100GP MPX5100GVP MPX5100AS MPX5100GS MPX5100GVS MPX5100ASX  
MPX5100GSX MPX5100GVSX MPX53D MPX53GP MPX5500D MPX5500DP MPX5700D  
MPX5700A MPX5700DP MPX5700GP MPX5700AP MPX5700GS MPX5700AS MPX5999D  
MPXA6115A6U MPXA6115AC6U MPXA6115A MPXA6115A6T1 MPXA6115AC6T1  
MPXAZ4100A6U MPXAZ4100A MPXAZ4100A6T1 MPXAZ4100AC6U MPXAZ4100AC6T1  
MPXAZ4115A6U MPXZ4115A MPXAZ4115A6T1 MPXAX4115AC6U MPXAZ4115AC6T1  
MPXC2011DT1 MPXM2010D MPXM2010DT1 MPXM2010GS MPXM2010GST1 MPXM2053D  
MPXM2053DT1 MPXM2053GS MPXM2053GST1 MPXV4006GC6U MPXV4006G6U  
MPXV4115V6U MPXV4115V6T1 MPXV4115VC6U MPXV5004GC6U/T1  
MPXV5004G6U/T1 MPXV5004GC7U MPXV5004G7U MPXY8010 MPXY8020 MPXY8030  
MPXY8040

**SUNSTAR 商斯达实业集团**是集研发、生产、工程、销售、代理经销、技术咨询、信息服务等为一体的高科技企业，是专业高科技电子产品生产厂家，是具有 10 多年历史的专业电子元器件供应商，是中国最早和最大的仓储式连锁规模经营大型综合电子零部件代理分销商之一，是一家专业代理和分销世界各大品牌 IC 芯片和电子元器件的连锁经营综合性国际公司，专业经营进口、国产名厂名牌电子元件，型号、种类齐全。在香港、北京、深圳、上海、西安、成都等全国主要电子市场设有直属分公司和产品展示展销窗口门市部专卖店及代理分销商，已在全国范围内建成强大统一的供货和代理分销网络。我们专业代理经销、开发生产电子元器件、集成电路、传感器、微波光电元器件、工控机/DOC/DOM 电子盘、专用电路、单片机开发、MCU/DSP/ARM/FPGA 软件硬件、二极管、三极管、模块等，是您可靠的一站式现货配套供应商、方案提供商、部件功能模块开发配套商。商斯达实业公司拥有庞大的资料库，有数位毕业于著名高校——有中国电子工业摇篮之称的西安电子科技大学（西军电）并长期从事国防尖端科技研究的高级工程师为您精挑细选、量身订做各种高科技电子元器件，并解决各种技术问题。

更多产品请看本公司产品专用销售网站：

商斯达中国传感器科技信息网：<http://www.sensor-ic.com/>

商斯达工控安防网：<http://www.pc-ps.net/>

商斯达电子元器件网：<http://www.sunstare.com/>

商斯达微波光电产品网：[HTTP://www.rfoe.net/](http://www.rfoe.net/)

商斯达消费电子产品网：<http://www.icasic.com/>

商斯达实业科技产品网：<http://www.sunstars.cn/>

传感器销售热线：

地址：深圳市福田区福华路福庆街鸿图大厦 1602 室

电话：0755-83370250 83376489 83376549 83607652 83370251 82500323

传真：0755-83376182 (0) 13902971329 MSN: [SUNS8888@hotmail.com](mailto:SUNS8888@hotmail.com)

邮编：518033 E-mail:[szss20@163.com](mailto:szss20@163.com) QQ: 195847376

深圳赛格展销部：深圳华强北路赛格电子市场 2583 号 电话：0755-83665529 25059422

技术支持：0755-83394033 13501568376

欢迎索取免费详细资料、设计指南和光盘；产品凡多，未能尽录，欢迎来电查询。

北京分公司：北京海淀区知春路 132 号中发电子大厦 3097 号

TEL: 010-81159046 82615020 13501189838 FAX: 010-62543996

上海分公司：上海市北京东路 668 号上海赛格电子市场 2B35 号

TEL: 021-28311762 56703037 13701955389 FAX: 021-56703037

西安分公司：西安高新开发区 20 所(中国电子科技集团导航技术研究所)

西安劳动南路 88 号电子商城二楼 D23 号

TEL: 029-81022619 13072977981 FAX:029-88789382