

S15

Plastic and stainless steel tubular M18 photoelectric sensors every environment

- Short case models for cost and space savings
- Plastic and stainless steel case with IP69K protection
- All optic functions at optimal operating distances
- Models with fixed settings or adjustment trimmer
- Cable, M12 connector and pig-tail models



APPLICATIONS

- Processing and Packaging machinery
- Assembling and Conveyor lines



(*) Stainless steel models.
ATEX II 3DG

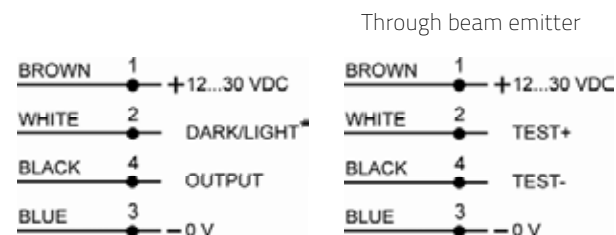
| S15 | | |
|---|-----------|--|
| Through beam | | 0...20 m |
| Retroreflective (on R2 reflector) | | 0,1...5 m |
| Polarized retroreflective | | 0,1...4 m |
| Retroreflective for transparent (on R2 reflector) | | 0,1...0,8 m |
| Diffuse proximity | | short distance 0...100 mm medium distance 0...350 mm long distance 1 m |
| Fixed focus | | 0...50 mm |
| Background suppression | | 40...120 mm |
| Power supply | Vdc | 10...30 V |
| | Vac | |
| | Vac/dc | |
| | PNP | ▪ |
| | NPN | ▪ |
| | NPN/PNP | |
| Output | relay | |
| | other | |
| | cable | ▪ |
| | connector | ▪ |
| Connection | pig-tail | ▪ |
| | | |
| Approximate dimensions (mm) | | M18x44/48 |
| Housing material | | ABS, INOX AISI 316L |
| Mechanical protection | | IP65 - IP67 - IP69K |

Tubular Sensors – S15

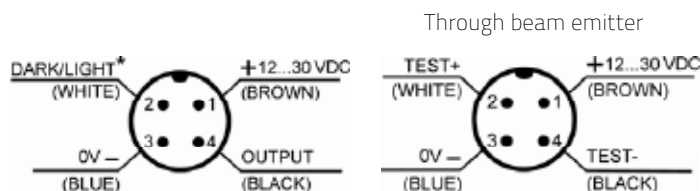
| TECHNICAL DATA | |
|-------------------------|---|
| Power supply | 12 ... 30 Vdc (limit values) |
| Ripple | 2 Vpp max. |
| Consumption | 25 mA max. |
| Light emission | red LED 660 nm (mod. S15...B/D/T/M) IR LED 880 nm (mod. S15...A/C/G) |
| Setting | mono-turn trimmer (mod. S15...A01/B01/Cx1/T01/F01) and 4 turns (mod. S15...M01) |
| Operating mode | white wire or pin 2 not connected: LIGHT mode (mod. S15...C/D/M)/DARK mode (mod. S15...A/B/T/F) white wire or pin 2 connected to: 0 V DARK mode,+Vcc LIGHT mode |
| Indicators | yellow OUTPUT LED green STABILITY LED, POWER LED (mod. S15...G) |
| Output | PNP or NPN |
| Output current | 100 mA max. |
| Saturation voltage | 2 V max. |
| Response time | 1 ms (mod. S15...A/B/C/T/M) 2 ms (mod. S15...F) 500 µs (mod. S15...D) |
| Switching frequency | 500 Hz (mod. S15...A/B/C/T/M) 250 Hz (mod. S15...F) 1 kHz (mod. S15...D) |
| Connection | M12 4-pole connector, 2 m cable Ø 4 mm, 150 mm length Ø 4 mm cable with M12 4-pole connector (pig-tail vers.) |
| Dielectric strength | 500 Vac 1 min., between electronics and housing |
| Insulation resistance | >20 MΩ 500 Vdc, between electronics and housing |
| Mechanical protection | IP65, IP67, IP69K |
| Ambient light rejection | according to EN 60947-5-2 |
| Vibrations | 0.5 mm amplitude, 10 ... 55 Hz frequency, for each axis (EN60068-2-6) |
| Housing material | ABS TERLURAN, INOX AISI 316L (mod. S15-PA) - (mod. S15-NA) |
| Lens material | plastic PMMA |
| Operating temperature | -25 ... 55°C |
| Storage temperature | -25 ... 70°C |
| Weight | 40 g max. conn. vers., 55 g max. cable vers., 35 g max. pig-tail vers. |

CONNECTIONS

CABLE AND PIG-TAIL



M12 CONNECTOR

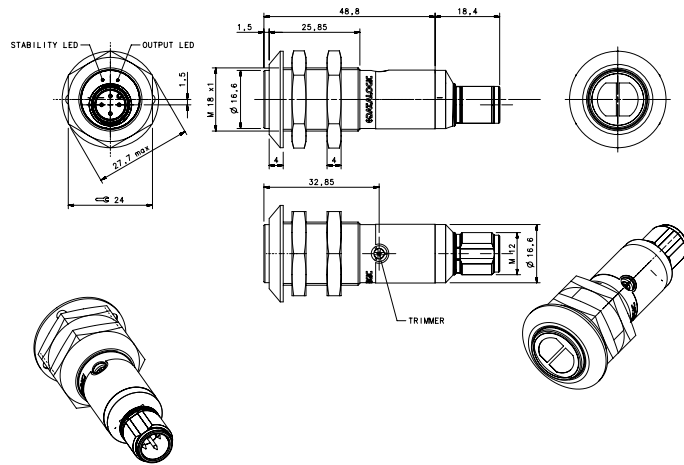


Tubular Sensors - S15

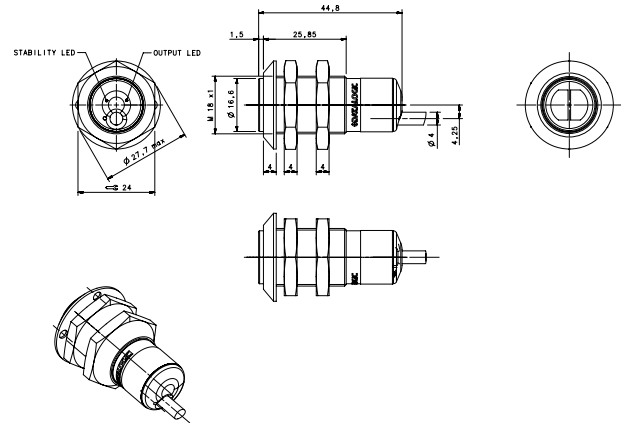
DIMENSIONS

PLASTIC

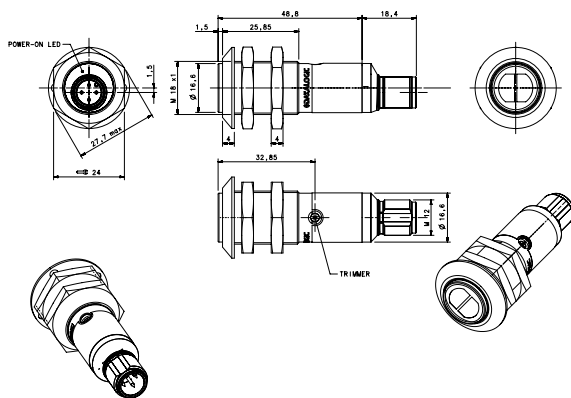
M12 connector version



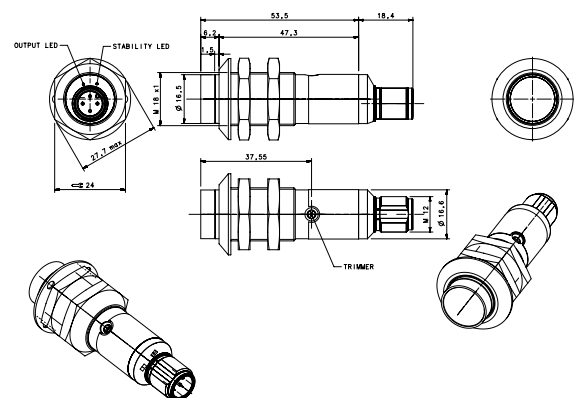
Cable version



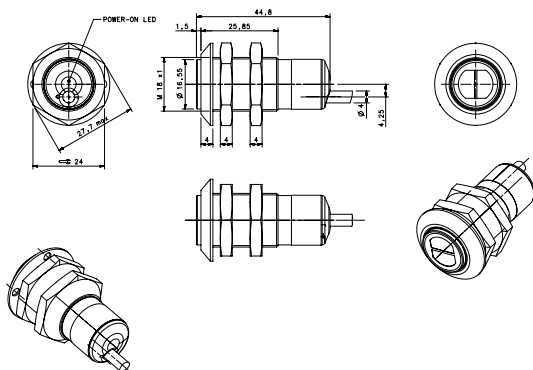
Through beam emitter - M12 connector version



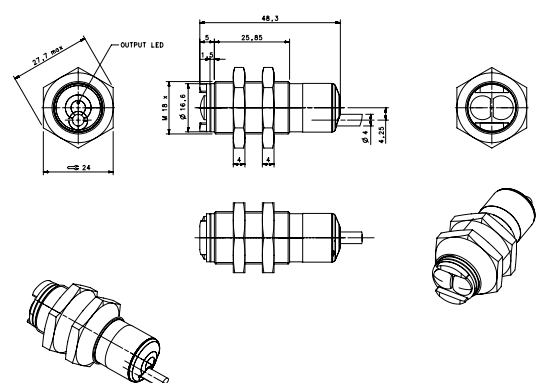
Background suppression - M12 connector version



Through beam emitter - cable version



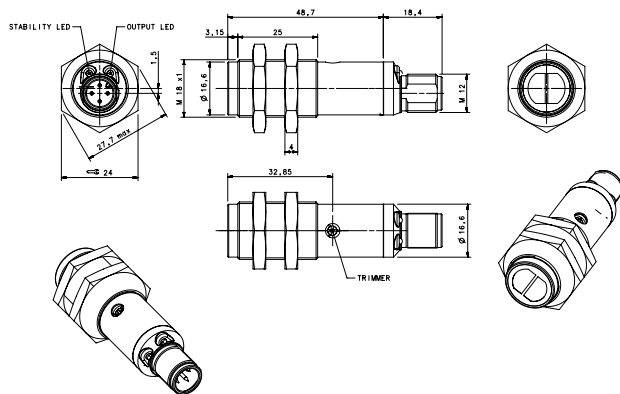
Diffuse proximity - cable version



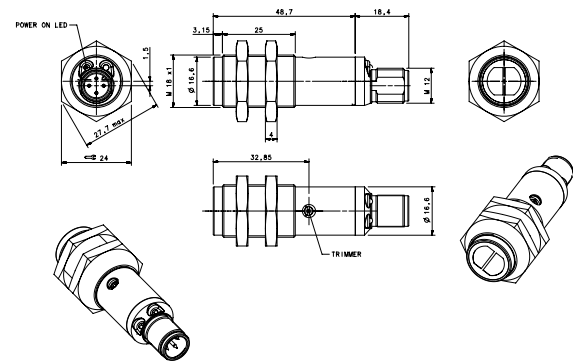
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STAINLESS STEEL

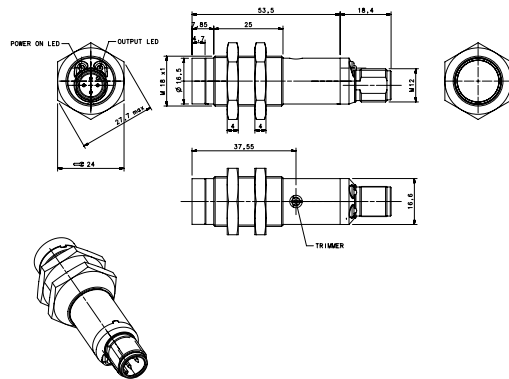
M12 connector version



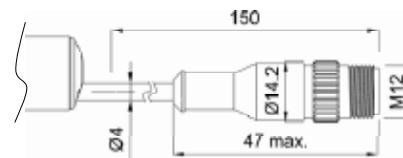
Through beam emitter – M12 connector version



Background suppression – M12 connector version

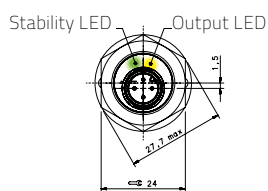


Pig-tail version

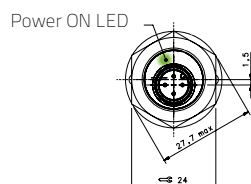


INDICATORS AND SETTINGS

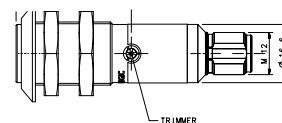
Plastic/metal case with trimmer, M12 connector



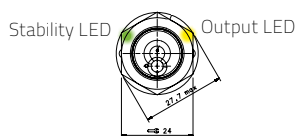
A01, B01, C11, C31, T01, F01, M01



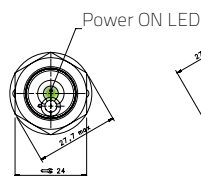
G01



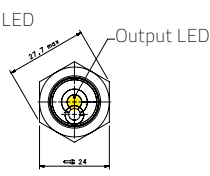
Plastic, no trimmer, Cable, Pig Tail



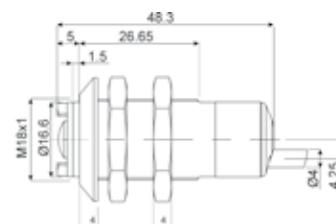
A00, B00, C10, C00, T01, D50



G00

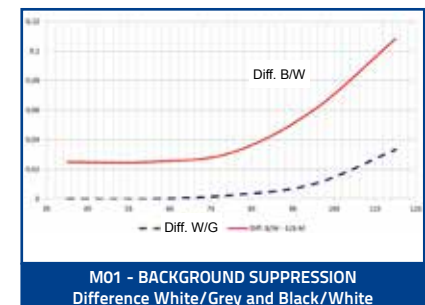
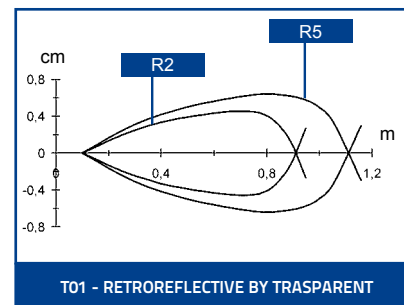
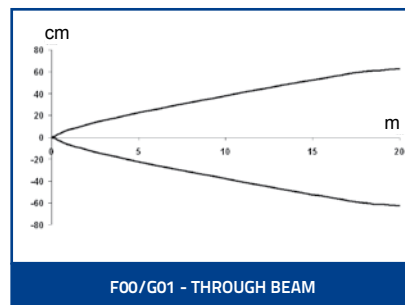
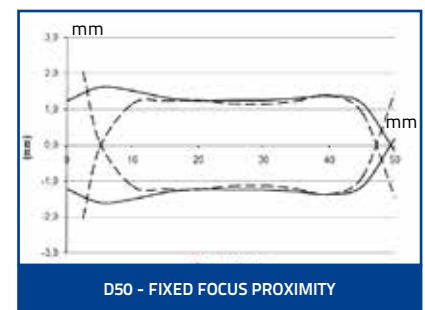
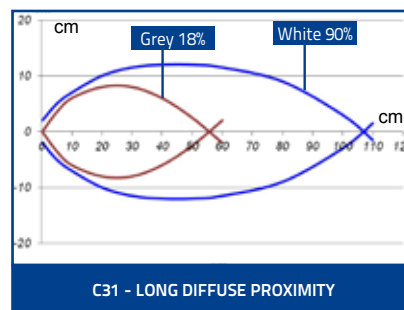
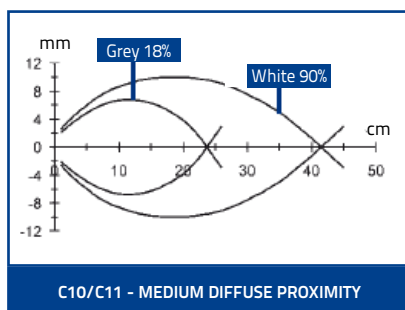
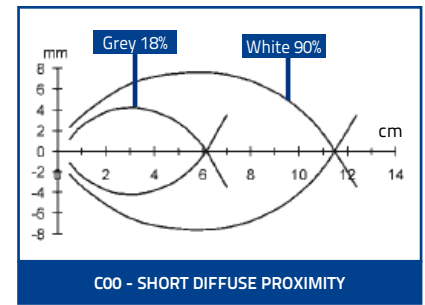
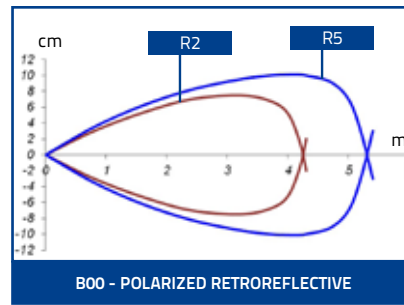
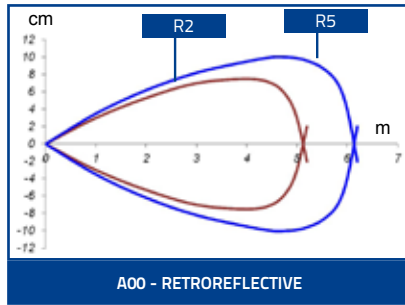


F00



Tubular Sensors - S15

DETECTION DIAGRAMS



Tubular Sensors – S15

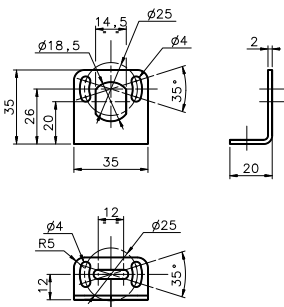


MODEL SELECTION AND ORDER INFORMATION

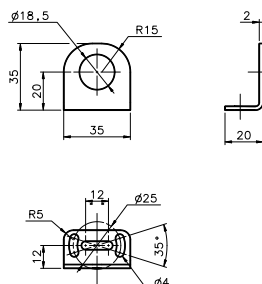
| OPTIC FUNCTION | HOUSING | CONNECTION | OUTPUT | MODEL | ORDER No. |
|-------------------------------------|-----------------|---------------|--------|-----------------|-----------|
| Retroreflective | Plastic | 2 m cable | NPN | S15-PA-2-A00-NK | 952301051 |
| | | | PNP | S15-PA-2-A00-PK | 952301001 |
| | | M12 connector | NPN | S15-PA-5-A01-NK | 952301300 |
| | | | PNP | S15-PA-5-A01-PK | 952301220 |
| | | pig-tail | NPN | S15-PA-3-A00-NK | 952301161 |
| | | | PNP | S15-PA-3-A00-PK | 952301111 |
| | Stainless Steel | M12 connector | NPN | S15-NA-5-A01-NK | 952301450 |
| | | | PNP | S15-NA-5-A01-PK | 952301370 |
| Polarized Retroreflective | Plastic | 2 m cable | NPN | S15-PA-2-B00-NK | 952301061 |
| | | | PNP | S15-PA-2-B00-PK | 952301011 |
| | | M12 connector | NPN | S15-PA-5-B01-NK | 952301310 |
| | | | PNP | S15-PA-5-B01-PK | 952301230 |
| | | pig-tail | NPN | S15-PA-3-B00-NK | 952301171 |
| | | | PNP | S15-PA-3-B00-PK | 952301121 |
| | Stainless Steel | M12 connector | NPN | S15-NA-5-B01-NK | 952301460 |
| | | | PNP | S15-NA-5-B01-PK | 952301380 |
| Diffuse proximity (short distance) | Plastic | 2 m cable | NPN | S15-PA-2-C00-NK | 952301071 |
| | | | PNP | S15-PA-2-C00-PK | 952301021 |
| | | pig-tail | NPN | S15-PA-3-C00-NK | 952301181 |
| | | | PNP | S15-PA-3-C00-PK | 952301131 |
| Diffuse proximity (medium distance) | Plastic | 2 m cable | NPN | S15-PA-2-C10-NK | 952301081 |
| | | | PNP | S15-PA-2-C10-PK | 952301031 |
| | | M12 connector | NPN | S15-PA-5-C11-NK | 952301330 |
| | | | PNP | S15-PA-5-C11-PK | 952301250 |
| | | pig-tail | NPN | S15-PA-3-C10-NK | 952301191 |
| | | | PNP | S15-PA-3-C10-PK | 952301141 |
| | Stainless Steel | M12 connector | NPN | S15-NA-5-C11-NK | 952301480 |
| | | | PNP | S15-NA-5-C11-PK | 952301400 |
| Diffuse proximity (long distance) | Plastic | M12 connector | NPN | S15-PA-5-C31-NK | 952301340 |
| | Stainless Steel | | PNP | S15-PA-5-C31-PK | 952301260 |
| | | | NPN | S15-NA-5-C31-NK | 952301490 |
| | | | PNP | S15-NA-5-C31-PK | 952301410 |
| Fixed focus | Plastic | 2 m cable | NPN | S15-PA-2-D50-NK | 952301530 |
| | | | PNP | S15-PA-2-D50-PK | 952301520 |
| | | pig-tail | NPN | S15-PA-3-D50-NK | 952301550 |
| | | | PNP | S15-PA-3-D50-PK | 952301540 |
| Through beam receiver | Plastic | 2 m cable | NPN | S15-PA-2-F00-NK | 952301091 |
| | | | PNP | S15-PA-2-F00-PK | 952301041 |
| | | M12 connector | NPN | S15-PA-5-F01-NK | 952301360 |
| | | | PNP | S15-PA-5-F01-PK | 952301280 |
| | | pig-tail | NPN | S15-PA-3-F00-NK | 952301201 |
| | | | PNP | S15-PA-3-F00-PK | 952301151 |
| | Stainless Steel | M12 connector | NPN | S15-NA-5-F01-NK | 952301510 |
| | | | PNP | S15-NA-5-F01-PK | 952301430 |
| Through beam emitter | Plastic | 2 m cable | - | S15-PA-2-G00-XG | 952301101 |
| | | M12 connector | - | S15-PA-5-G01-XG | 952301290 |
| | | pig-tail | - | S15-PA-3-G00-XG | 952301211 |
| | Stainless Steel | M12 connector | - | S15-NA-5-G01-XG | 952301440 |
| Background suppression | Plastic | M12 connector | NPN | S15-PA-5-M01-NK | 952301350 |
| | Stainless Steel | | PNP | S15-PA-5-M01-PK | 952301270 |
| | | | NPN | S15-NA-5-M01-NK | 952301500 |
| | | | PNP | S15-NA-5-M01-PK | 952301420 |
| Transparent | Plastic | M12 connector | NPN | S15-PA-5-T01-NK | 952301320 |
| | | | PNP | S15-PA-5-T01-PK | 952301240 |
| | Stainless Steel | | NPN | S15-NA-5-T01-NK | 952301470 |
| | | | PNP | S15-NA-5-T01-PK | 952301390 |

ACCESSORIES

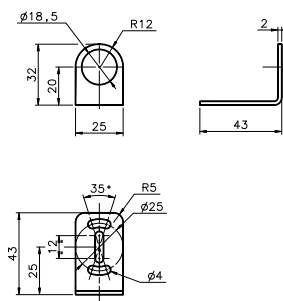
ST-5010



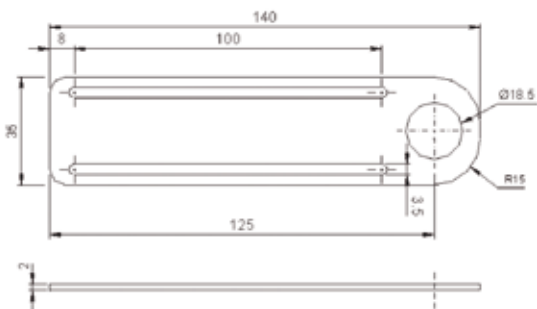
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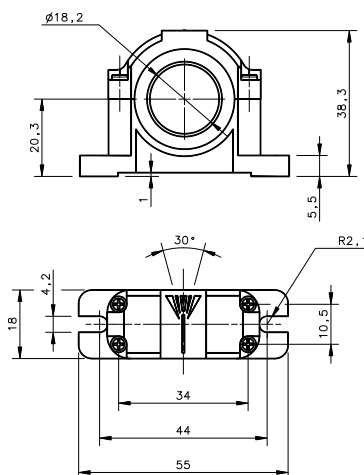
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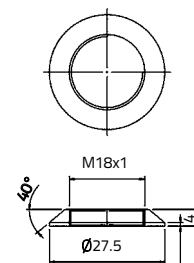
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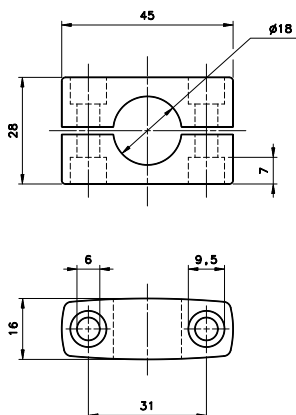
SWING-18



PLASTIC NUT



SP-40



mm

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| MODEL | DESCRIPTION | ORDER No. |
|-------------|--|-----------|
| ST-5010 | M18/14 mounting bracket | 95ACC5230 |
| ST-5011 | M18 mounting bracket short | 95ACC5240 |
| ST-5012 | M18 mounting bracket long | 95ACC5250 |
| ST-5017 | M18 mounting bracket | 95ACC5270 |
| ST1218 | M12/M18 mounting brackets | 95ACC3340 |
| ST1830 | M18/M30 mounting brackets | 95ACC3350 |
| SP-40 | mounting bracket tubular | 95ACC1370 |
| SWING-18 | Adjustable support for M18 tubular sensors | 895000006 |
| PLASTIC NUT | flared mounting nut | 95ACC2630 |

CABLES

| TYPE | DESCRIPTION | LENGTH | MODEL | ORDER No. |
|----------------------|---------------------------------|-----------------------|---------------|-----------|
| Axial M12 Connector | 4-pole, grey, P.V.C. | 3 m | CS-A1-02-G-03 | 95A251380 |
| | | 5 m | CS-A1-02-G-05 | 95A251270 |
| | | 7 m | CS-A1-02-G-07 | 95A251280 |
| | | 10 m | CS-A1-02-G-10 | 95A251390 |
| | 4-pole, P.U.R. | 2 m | CS-A1-02-R-02 | 95A251540 |
| | | 5 m | CS-A1-02-R-05 | 95A251560 |
| Radial M12 Connector | 4-pole, grey, P.V.C. | 3 m | CS-A2-02-G-03 | 95A251360 |
| | | 5 m | CS-A2-02-G-05 | 95A251240 |
| | | 7 m | CS-A2-02-G-07 | 95A251245 |
| | | 10 m | CS-A2-02-G-10 | 95A251260 |
| | 4-pole, P.U.R. | 2 m | CS-A2-02-R-02 | 95A251550 |
| | | 5 m | CS-A2-02-R-05 | 95A251570 |
| Axial M12 Connector | 4-pole, shielded, black, P.V.C. | 3 m | CV-A1-22-B-03 | 95ACC1480 |
| | | 5 m | CV-A1-22-B-05 | 95ACC1490 |
| | | 10 m | CV-A1-22-B-10 | 95ACC1500 |
| | | 15 m | CV-A1-22-B-15 | 95ACC2070 |
| | | 25 m | CV-A1-22-B-25 | 95ACC2090 |
| Radial M12 Connector | 4-pole, shielded, black, P.V.C. | 3 m | CV-A2-22-B-03 | 95ACC1540 |
| | | 5 m | CV-A2-22-B-05 | 95ACC1550 |
| | | 10 m | CV-A2-22-B-10 | 95ACC1560 |
| | | 15 m | CV-A2-22-B-15 | 95ACC1570 |
| Axial M12 Connector | 4-pole, U.L., black, P.V.C. | 3 m | CS-A1-02-U-03 | 95ASE1120 |
| | | 5 m | CS-A1-02-U-05 | 95ASE1130 |
| | | 10 m | CS-A1-02-U-10 | 95ASE1140 |
| | | 15 m | CS-A1-02-U-15 | 95ASE1150 |
| | | 25 m | CS-A1-02-U-25 | 95ASE1160 |
| Radial M12 Connector | 4-pole, black | Connector- not cabled | CS-A1-02-B-NC | G5085002 |
| | | Connector- not cabled | CS-A2-02-B-NC | G5085003 |