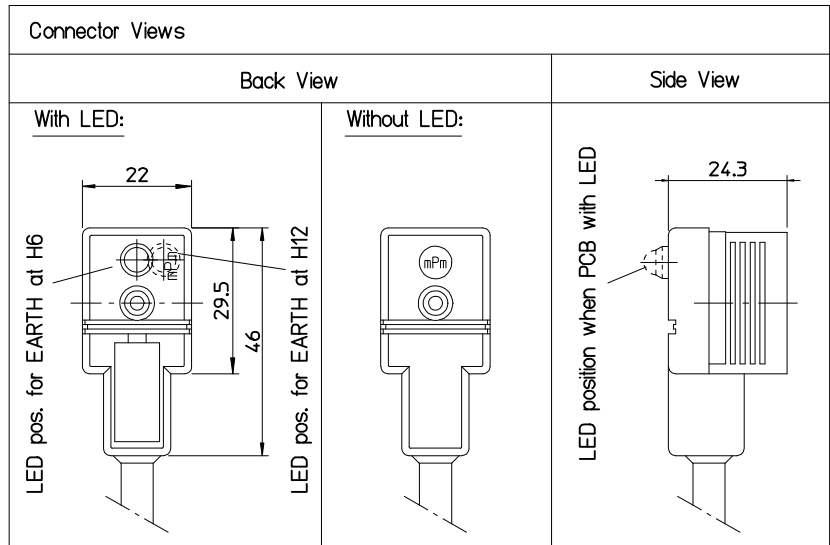
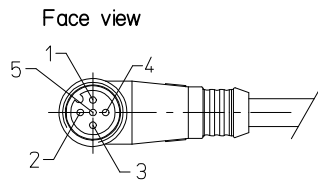
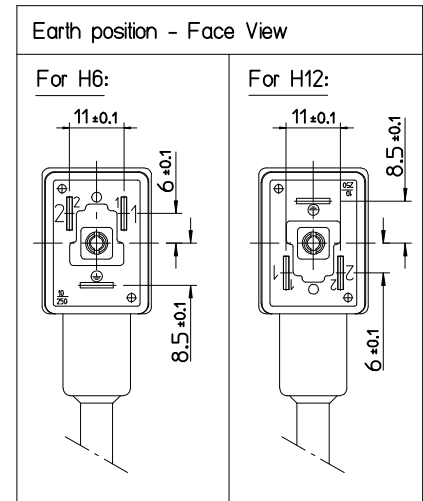
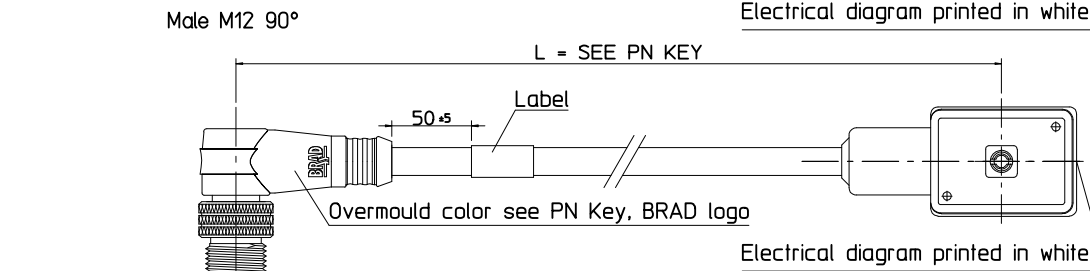
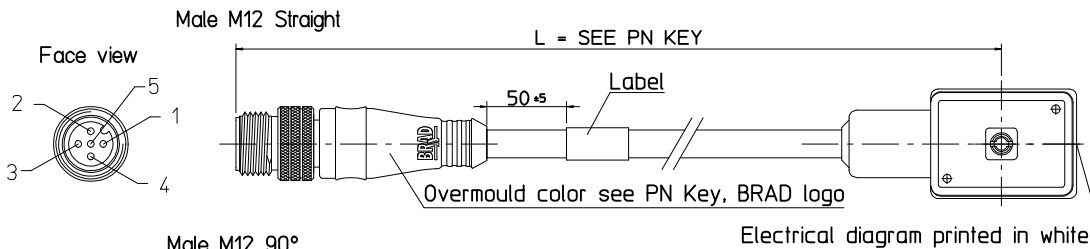
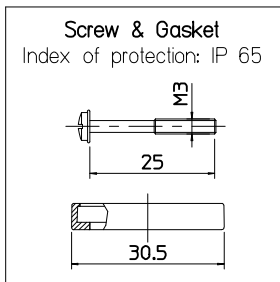
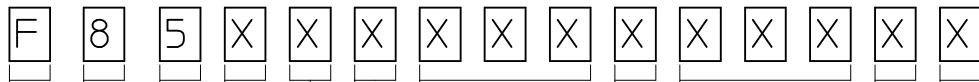


| Over | Up to and including | Tolerance |
|-------|---------------------|-----------|
| 0 | 1000 | ±20 |
| 1000 | 3000 | ±30 |
| 3000 | 5000 | ±40 |
| 5000 | 10000 | ±50 |
| 10000 | 15000 | ±100 |
| 15000 | 20000 | ±150 |
| 20000 | | ±L/100 |



PART No MATRIX - PN Key

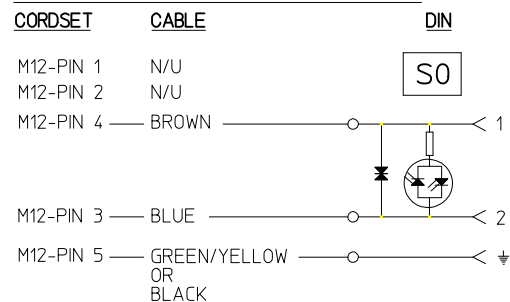


- F** = Form B Industrial Standard (11mm contact spacing)
- 8** = MMC Single Keyway
- 5** = 5-5 Pole
- Wiring details:**
 - 0 = Positive Switching (pin 3&4)
 - 1 = Negative Switching (pin 1&4)
- Electrical configurations:**
 - 0 = Without LED/without circuit
 - A = S0 24V Yellow LED
 - B = C4 24V Yellow LED
 - C = S0 110V Yellow LED
 - D = C4 110V Yellow LED
 - E = S0 24V Green LED
 - F = C4 24V Green LED
 - G = S0 110V Green LED
 - H = C4 110V Green LED
 - J = S0 24V Red LED
 - K = C4 24V Red LED
 - L = S0 110V Red LED
 - M = C4 110V Red LED
 - S = C4 230V Yellow LED
- XXX** = Cable Type
- M** = Metres
- F** = Feet
- Lengths:**
 - 020-2 Meters
 - 050-5 Meters
 - 200-20 Meters
- Options:**
 - H/D Carrier:**
 - M12 Overmoulding color:
 - Blank-Black Standard
 - Y=Yellow
 - A=Grey
 - Coupling Nut Material:**
 - Blank-Standard
 - 1=Stainless Steel
 - 5-Delrin
 - 7-Teflon coat
- DIN Earth Position - o'clock & M12 connector body:**
 - 0 = EARTH H6, MALE Straight
 - 1 = EARTH H12, MALE Straight
 - 2 = EARTH H6, MALE 90°
 - 3 = EARTH H12, MALE 90°

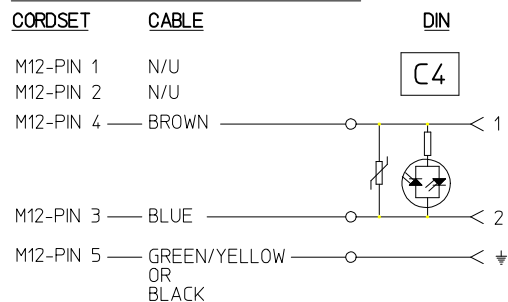
| | | | | | | | | | | |
|---|----------------------------|--|--|--|--------------------|---|-------------------------------|--------------------------------------|-------------------------------|----------------------------|
| ADD CABLE B31 EC NO: IPG2014-0850 DRWN: JMARSZALEK 2013/11/07 CHKD: MSZWAJKOWSKI 2013/11/07 APPR: MIWASIECZKO 2013/11/08 | QUALITY SYMBOLS | GENERAL TOLERANCES (UNLESS SPECIFIED) | | DIMENSION STYLE MM ONLY | | SCALE METRIC | DESIGN UNITS METRIC | | FIRST ANGLE PROJECTION | |
| | | | | DRAWN BY JMARSZALEK | DATE 2012/11/08 | TITLE F85XXXXXXXXXX DIN B IND + CORDSETS M12 | | | | |
| | | | | CHECKED BY MSZWAJKOWSKI | DATE 2012/11/08 | molex | | | | |
| | | | | APPROVED BY MIWASIECZKO | DATE 2013/11/08 | MATERIAL NO. SEE SHEET 3 | | DOCUMENT NO. SD-121036-002 | | SHEET NO. 1 OF 3 |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | ANGULAR ±---° | | SIZE A3 | | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | | |

Electrical diagrams

Electrical diagram with circuit S0 (zener diode) for:



Electrical diagram with circuit C4 (VDR) for:






Cable type

| Cable Type | Jacket Material | Jacket Color | Wire cross section | Braid |
|------------|-----------------|--------------|---------------------|-------|
| A23 | PVC | Black | 0.75mm ² | no |
| A58 | PVC | Black | 20AWG | no |
| B08 | PUR | Yellow | 18AWG | no |
| E03 | PVC | Black | 0.34mm ² | no |
| E12 | PVC | Black | 0.5mm ² | no |
| I12 | CEI PVC | Grey | 0.5mm ² | no |
| P12 | PUR | Black | 0.5mm ² | no |
| P82 | PUR IRR | Orange | 0.34mm ² | no |
| S26 | PVC | Yellow | 0.34mm ² | yes |
| B31 | PUR | Black | 0.5mm ² | no |

| | | | | | | | |
|--|---|--|-------------------------------|---------------------|--------------|--|--|
| ADD CABLE B31 EC NO: IPG2014-0850 DRWN: JMARSZALEK 2013/11/07 CHKD: MSZWAJKOWSKI 2013/11/07 APPR: MIWASIECZKO 2013/11/08 | QUALITY SYMBOLS | GENERAL TOLERANCES (UNLESS SPECIFIED) | DIMENSION STYLE | SCALE | DESIGN UNITS | FIRST ANGLE PROJECTION | |
| | =0 =0 | mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± --- ± --- 1 PLACE ± --- ± --- 0 PLACE ± --- ± --- | MM ONLY | 1:1 | METRIC | DRAWN BY: JMARSZALEK DATE: 2012/11/08 CHECKED BY: MSZWAJKOWSKI DATE: 2012/11/08 APPROVED BY: MIWASIECZKO DATE: 2013/11/08 | TITLE F85XXXXXXXXXX DIN B IND + CORDSETS M12 |
| | ANGULAR ± --- ° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | SEE SHEET 3 MATERIAL NO. | DOCUMENT NO. SD-121036-002 | SHEET NO. 2 OF 3 | | | |
| | SIZE A3 | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | | | |

PART LIST

| Pos. | Molex PN: | Engineering No.: | Pos. | Molex PN: | Engineering No.: | Pos. | Molex PN: | Engineering No.: | Pos. | Molex PN: | Engineering No.: | Pos. | Molex PN: | Engineering No.: |
|------|------------|------------------|------|------------|------------------|------|------------|------------------|------|-----------|------------------|------|-----------|------------------|
| 1 | 1210350196 | F85000E12M050 | 41 | 1210360606 | F850B1E12M010 | 81 | 1210360901 | F850B0B31M006 | 121 | | | 161 | | |
| 2 | 1210350197 | F85000E12M060 | 42 | 1210360607 | F850B1P12M003 | 82 | 1210360902 | F850B0B31M010 | 122 | | | 162 | | |
| 3 | 1210350216 | F85001E12M003 | 43 | 1210360608 | F850B1P12M008 | 83 | 1210360903 | F850B0B31M015 | 123 | | | 163 | | |
| 4 | 1210350217 | F85001E12M030 | 44 | 1210360609 | F850B1P12M070 | 84 | 1210360904 | F850B0B31M030 | 124 | | | 164 | | |
| 5 | 1210350286 | F85000P12M006 | 45 | 1210360660 | F850B0A58M006 | 85 | 1210360905 | F850B2B31M006 | 125 | | | 165 | | |
| 6 | 1210350287 | F85000P12M010 | 46 | 1210360661 | F850B0A58M015 | 86 | 1210360906 | F850B2B31M010 | 126 | | | 166 | | |
| 7 | 1210350288 | F85000P12M020 | 47 | 1210360670 | F850B3B08M050 | 87 | 1210360907 | F850B2B31M015 | 127 | | | 167 | | |
| 8 | 1210350303 | F85000E12M006 | 48 | 1210360671 | F850A0A58M100 | 88 | 1210360908 | F850B2B31M030 | 128 | | | 168 | | |
| 9 | 1210350312 | F85000E12M030 | 49 | 1210360673 | F850B0P82M015 | 89 | | | 129 | | | 169 | | |
| 10 | 1210350325 | F85000E12M003 | 50 | 1210360674 | F850B0E12M050 | 90 | | | 130 | | | 170 | | |
| 11 | 1210350344 | F85000P12M011 | 51 | 1210360690 | F850A0A58M005 | 91 | | | 131 | | | 171 | | |
| 12 | 1210350345 | F85000P12M009 | 52 | 1210360691 | F850B0A58M010 | 92 | | | 132 | | | 172 | | |
| 13 | 1210350346 | F85000P12M012 | 53 | 1210360693 | F850B0A58M030 | 93 | | | 133 | | | 173 | | |
| 14 | 1210350347 | F85000P12M013 | 54 | 1210360728 | F850B0A23M010 | 94 | | | 134 | | | 174 | | |
| 15 | 1210360247 | F850A3P12M010 | 55 | 1210360740 | F850A3A58M050 | 95 | | | 135 | | | 175 | | |
| 16 | 1210360248 | F850A3P12M040 | 56 | 1210360741 | F850B1A58M100 | 96 | | | 136 | | | 176 | | |
| 17 | 1210360251 | F850B0I12M006 | 57 | 1210360759 | F850B0P82M005 | 97 | | | 137 | | | 177 | | |
| 18 | 1210360252 | F850B0I12M010 | 58 | 1210360763 | F850A0A58M070 | 98 | | | 138 | | | 178 | | |
| 19 | 1210360255 | F850B0P12M010 | 59 | 1210360790 | F850D0P12M006 | 99 | | | 139 | | | 179 | | |
| 20 | 1210360256 | F850B0P12M020 | 60 | 1210360791 | F850D0P12M020 | 100 | | | 140 | | | 180 | | |
| 21 | 1210360257 | F850B0P12M030 | 61 | 1210360800 | F850A0P12M006 | 101 | | | 141 | | | 181 | | |
| 22 | 1210360352 | F850B0P12M006 | 62 | 1210360801 | F850C0P12M006 | 102 | | | 142 | | | 182 | | |
| 23 | 1210360398 | F850B1P12M020 | 63 | 1210360802 | F850A0P12M010 | 103 | | | 143 | | | 183 | | |
| 24 | 1210360437 | F850B1E03M010 | 64 | 1210360803 | F850C0P12M010 | 104 | | | 144 | | | 184 | | |
| 25 | 1210360461 | F850B0P12M050 | 65 | 1210360804 | F850A0P12M020 | 105 | | | 145 | | | 185 | | |
| 26 | 1210360462 | F850B1P12M006 | 66 | 1210360805 | F850C0P12M020 | 106 | | | 146 | | | 186 | | |
| 27 | 1210360463 | F850B1P12M010 | 67 | 1210360806 | F850B1P12M0087 | 107 | | | 147 | | | 187 | | |
| 28 | 1210360464 | F850D0P12M010 | 68 | 1210360809 | F850B0I12M020 | 108 | | | 148 | | | 188 | | |
| 29 | 1210360499 | F850B1P82M010 | 69 | 1210360810 | F850B1P82M0087 | 109 | | | 149 | | | 189 | | |
| 30 | 1210360502 | F850A0A58M030 | 70 | 1210360811 | F850B1P82M0067 | 110 | | | 150 | | | 190 | | |
| 31 | 1210360503 | F850A0A58M050 | 71 | 1210360818 | F850B0I12M010Y | 111 | | | 151 | | | 191 | | |
| 32 | 1210360504 | F850B0A58M100 | 72 | 1210360820 | F850B0I12M020Y | 112 | | | 152 | | | 192 | | |
| 33 | 1210360505 | F850B2P12M006 | 73 | 1210360822 | F850B0P12M015 | 113 | | | 153 | | | 193 | | |
| 34 | 1210360506 | F850B2P12M010 | 74 | 1210360823 | F850B2P12M015 | 114 | | | 154 | | | 194 | | |
| 35 | 1210360545 | F850B0E12M010 | 75 | 1210360824 | F850B2P12M030 | 115 | | | 155 | | | 195 | | |
| 36 | 1210360548 | F850B1E12M006 | 76 | 1210360839 | F850B0P82M0067 | 116 | | | 156 | | | 196 | | |
| 37 | 1210360561 | F850B2E12M010 | 77 | 1210360840 | F850B0P82M0067Y | 117 | | | 157 | | | 197 | | |
| 38 | 1210360571 | F850B0P82M0107 | 78 | 1210360860 | F850B0P12M010H | 118 | | | 158 | | | 198 | | |
| 39 | 1210360603 | F850B0A58M020 | 79 | 1210360863 | F850B1P12M015 | 119 | | | 159 | | | 199 | | |
| 40 | 1210360605 | F850B0E12M020 | 80 | 1210360865 | F850B0P12M020H | 120 | | | 160 | | | 200 | | |

| | | | | | | | | | |
|---|--|---|--|---|--|--|--|--|--|
| <p>ADD NEW PN'S EC NO: IPG2014-0850 DRWN: JMARSZALEK 2013/11/07 CHKD: MSZWAJKOWSKI 2013/11/07 APPR: MIWASIECZKO 2013/11/08</p> | <p>QUALITY SYMBOLS  = 0  = 0</p> | <p>GENERAL TOLERANCES (UNLESS SPECIFIED)</p> | | <p>DIMENSION STYLE MM ONLY</p> | <p>SCALE 1:1</p> | <p>DESIGN UNITS METRIC</p> | <p>FIRST ANGLE PROJECTION </p> | | |
| | | <p>4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± --- ± --- 1 PLACE ± --- ± --- 0 PLACE ± --- ± ---</p> | <p>mm INCH ± --- ± --- ± --- ± --- ± --- ± --- ± --- ± ---</p> | <p>DRAWN BY DATE JMARSZALEK 2012/11/08</p> | <p>CHECKED BY DATE MSZWAJKOWSKI 2012/11/08</p> | <p>TITLE F85XXXXXXXXXX DIN B IND + CORDSETS M12</p> | | | |
| | | <p>ANGULAR ± --- °</p> | | <p>MATERIAL NO. SEE TABLE</p> | <p>DOCUMENT NO. SD-121036-002</p> | | | | |
| | | <p>DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS</p> | | <p>SIZE A3</p> | <p>THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION</p> | | | | |