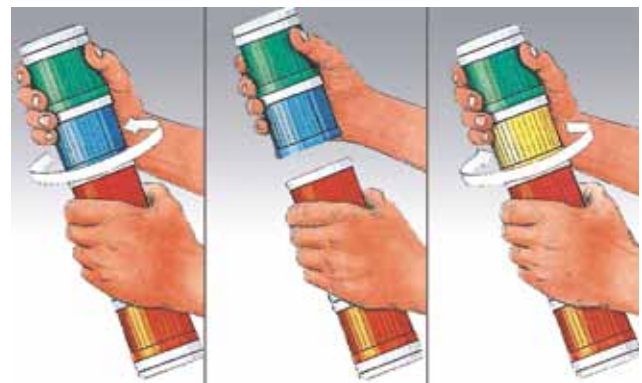




- ▶ modular construction with bayonet locking system
- ▶ fast and easy to operate, mount, configure and change of modules
- ▶ troublefree and fingersafe bulb change at any position without using any tools



## QUICK MOUNT SYSTEM „FOOT ADAPTER“ (Pat.No. 501053) (Base type BFR)

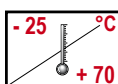


Quick mounting system "Foot adapter" saves the customer the electrical connection and eases considerably mounting of signal tower for machine manufacturers and their customers. Detailed description see page 51.

### Features

- ▶ modularly designed, versatile, flexible and powerful signal towers
- ▶ any desired combination possible for many different kind of applications
- ▶ complete range of visual and audible modules in all conventional voltages
- ▶ extensive mounting options
- ▶ 6 lens colours
- ▶ PLC fit (leakage/inrush current)
- ▶ Protection class IP 65, UL certified, UL type 4, 4X, 13
- ▶ Integration into field bus system with AS-Interface module BAZ

module contacts



## CONFIGURATION

### SIGNAL TOWER modulSIGNAL70



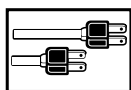
| LIGHT MODULES                                                                                            | Light source           | Type |
|----------------------------------------------------------------------------------------------------------|------------------------|------|
| Steady light                                                                                             | bulb or<br>LED-bulb    | SLL  |
| Flashing light                                                                                           |                        | SLB  |
| Strobe light                                                                                             | xenon tube             | SLF  |
| LED-Steady light                                                                                         | LED                    | SDC  |
| LED-Flashing light                                                                                       |                        | SDA  |
| LED-Rotating light                                                                                       |                        | SDR  |
| LIGHT-BUZZER-MODULES                                                                                     |                        |      |
| Steady light - Buzzer                                                                                    | bulb<br>or<br>LED-bulb | SLP  |
| Steady light - Buzzer<br>light and tone separately<br>addressable                                        |                        | SLD  |
| Flashing light - Buzzer                                                                                  |                        | SBP  |
| Strobe light - Buzzer                                                                                    | xenon tube             | SFP  |
| LED-Steady light - Buzzer                                                                                | LED                    | SCP  |
| LED-Flashing light - Buzzer                                                                              |                        | SAP  |
| LED-Rotating light - Buzzer                                                                              |                        | SRP  |
| PIEZO BUZZER MODULES                                                                                     | Volume                 |      |
| Continuous or pulsing tone<br>and sound pressure selectable<br>with DIP switches                         | 85-107 dB              | SDE  |
|                                                                                                          |                        | SPE  |
| Continuous and pulsing tone ex-<br>ternally switchable, sound pres-<br>sure selectable with DIP switches |                        | SDZ  |
|                                                                                                          |                        | SPZ  |
| ELECTRONIC SOUNDER MODULES                                                                               |                        |      |
| (15 tone types available – pls. refer to sound table page 47.)                                           |                        |      |
| Tone type selectable by<br>DIP switch                                                                    | 64-103 dB              | STE  |
| 2 tone types externally<br>switchable                                                                    |                        | STZ  |

continuous or pulsing  
tone and volume  
(92-107 dB) select-  
able by DIP switch



## BASES



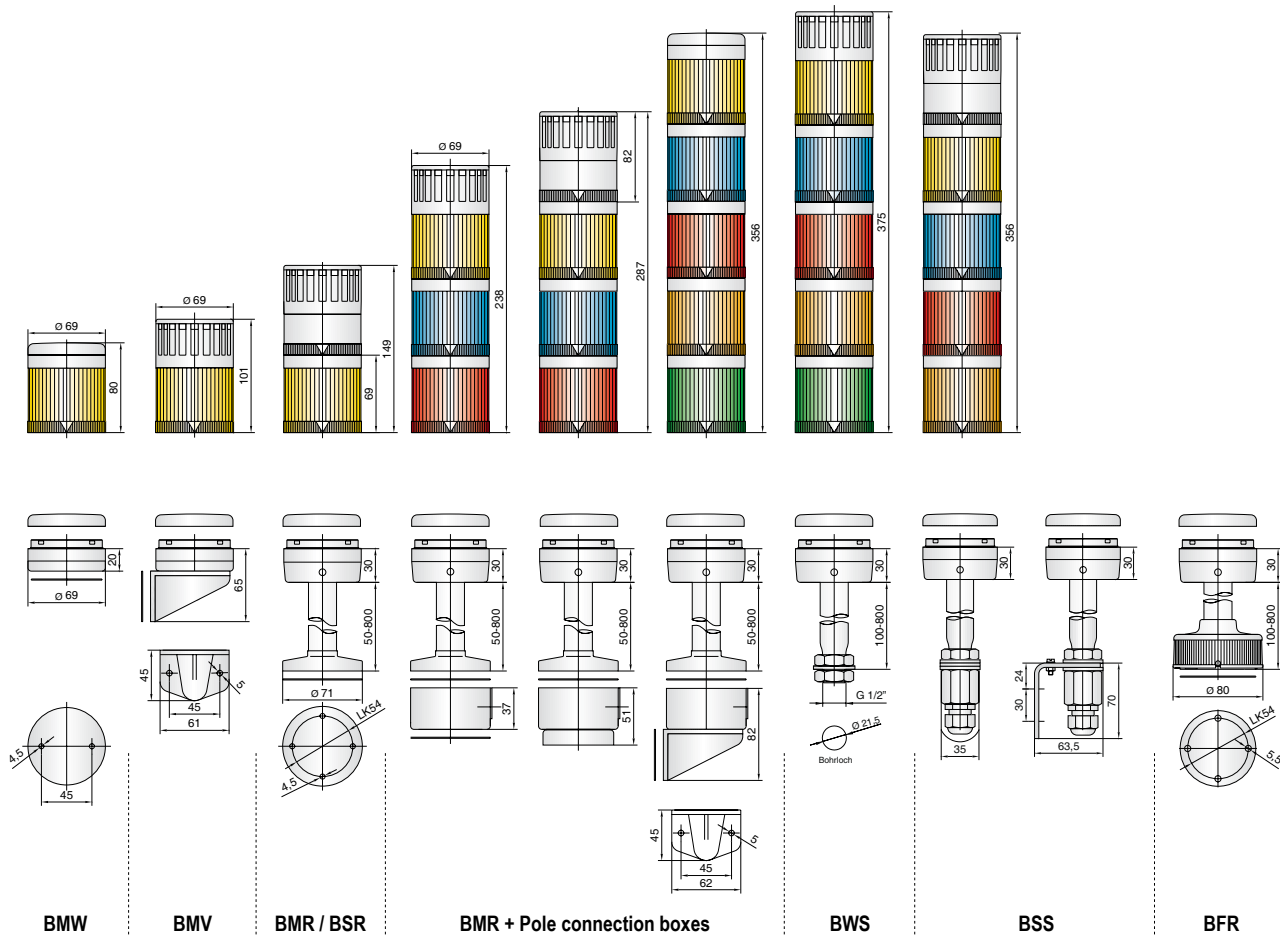


## Technical data

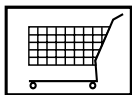
### for all modul SIGNAL70 modules/products:

|                  |                                                         |                   |                   |
|------------------|---------------------------------------------------------|-------------------|-------------------|
| Housing material | polycarbonate, grey RAL 7035,<br>black RAL 9005, silver | Temperature range | -25 °C bis +70 °C |
| Lens material    | polycarbonate                                           |                   |                   |
| Lens colours     | amber, red, clear, blue, green, yellow                  |                   |                   |
| Terminals        | up to 2,5 mm <sup>2</sup>                               |                   |                   |

| Light modules                    |           | SLL                                                    |                  | SLB               | SLF                      | SDC               | SDA                | SDR                |
|----------------------------------|-----------|--------------------------------------------------------|------------------|-------------------|--------------------------|-------------------|--------------------|--------------------|
| Bulb W                           |           | 7 W                                                    |                  |                   |                          |                   |                    |                    |
| Socket (BA 15 d)                 |           | X                                                      |                  |                   |                          |                   |                    |                    |
| Flashing-/Strobe frequency       |           |                                                        | 2 Hz             |                   | 1,4 Hz                   |                   | 2 Hz               |                    |
| Strobe energy                    |           |                                                        |                  |                   | 3 J                      |                   |                    |                    |
| Lifetime                         |           |                                                        |                  |                   | ~ 5 Mio. flashes         |                   |                    |                    |
| Light source LED                 |           |                                                        |                  |                   |                          | X                 |                    |                    |
| Light emission                   |           | 360°                                                   |                  |                   |                          |                   |                    |                    |
| Light type                       |           | steady light                                           | flashing light   |                   | strobe light             | LED-steady light  | LED-flashing light | LED-rotating light |
| Leakage                          |           | 3                                                      |                  |                   |                          |                   |                    |                    |
| Nominal current                  | 12 V      | max. 7 W                                               |                  |                   | 285 mA                   | 120 mA            |                    |                    |
|                                  | 24 V      |                                                        |                  |                   | 180 mA                   | 70 mA             |                    |                    |
|                                  | 110/120 V |                                                        |                  |                   | 50 mA                    | 43 mA             |                    |                    |
|                                  | 230/240 V |                                                        |                  |                   | 35 mA                    | 41 mA             |                    |                    |
| Protection class                 |           | IP 65, UL type 4, 4X, 13                               |                  |                   |                          |                   |                    |                    |
| Weight                           |           | 100 g                                                  |                  |                   |                          |                   |                    |                    |
| Light Buzzer modules             |           | SLP                                                    | SLD              | SBP               | SFP                      | SCP               | SAP                | SRP                |
| Bulb                             |           | 7 W                                                    |                  |                   |                          |                   |                    |                    |
| Socket (BA15 d)                  |           | X                                                      |                  |                   |                          |                   |                    |                    |
| Flashing-/Strobe frequency       |           |                                                        |                  | 2 Hz              | 1,4 Hz                   |                   |                    |                    |
| Strobe energy                    |           |                                                        |                  |                   | 3 J                      |                   |                    |                    |
| Light source LED                 |           |                                                        |                  |                   |                          | X                 |                    |                    |
| Light emission                   |           | 360°                                                   |                  |                   |                          |                   |                    |                    |
| Light type                       |           | steady light                                           |                  | flashing light    | strobe light             | LED-steady l.     | LED-flashing l.    | LED-rotating light |
| Leakage                          |           | 3 mA                                                   |                  |                   |                          |                   |                    |                    |
| Nominal current                  | 12 V      | 5 W, 27 mA                                             |                  |                   | 310 mA                   | 150 mA            |                    |                    |
|                                  | 24 V      | 7 W, 45 mA                                             |                  |                   | 220 mA                   | 110 mA            |                    |                    |
|                                  | 110/120 V | 7 W, 43 mA                                             |                  |                   | 93 mA                    | 64 mA             |                    |                    |
|                                  | 230/240 V | 7 W, 40 mA                                             |                  |                   | 75 mA                    | 61 mA             |                    |                    |
| Tone-/light-operation            |           | synchronous                                            | separate control | synchronous       | synchronous              | synchronous       | synchronous        | synchronous        |
| Tone type                        |           | continuous- or pulsing tone (selectable by DIP switch) |                  |                   |                          |                   |                    |                    |
| Tone frequency                   |           | 3.300 Hz                                               |                  |                   |                          |                   |                    |                    |
| Sound pressure (dB)              |           | 92 / 107 dB (selectable by DIP switch)                 |                  |                   |                          |                   |                    |                    |
| Protection class                 |           | IP 65, UL type 4, 4X, 13                               |                  |                   |                          |                   |                    |                    |
| Weight                           |           | 130 g                                                  |                  |                   |                          |                   |                    |                    |
| Piezo Buzzer and Sounder modules |           | SDE                                                    |                  | SPE               | SDZ                      | SPZ               | STE                | STZ                |
| Tone type                        |           | continuous and pulsing tone                            |                  |                   |                          |                   | 15 tone types      |                    |
| Tone frequency                   |           | 3.300 Hz                                               |                  |                   |                          |                   | 100 - 1.500 Hz     |                    |
| Sound pressure (dB)              |           | 92 / 107 dB                                            | 85 / 97 dB       | 92 / 107 dB       | 85 / 97 dB               | 64 - 103 dB       |                    |                    |
|                                  |           | selectable by DIP switch                               |                  |                   |                          |                   | potentiometer      |                    |
| Leakage                          |           | 3 mA                                                   |                  |                   |                          |                   |                    |                    |
| Nominal current                  | 12 V      | 27 mA                                                  |                  |                   |                          | 35 mA             |                    |                    |
|                                  | 24 V      | 45 mA                                                  |                  |                   |                          | 75 mA             |                    |                    |
|                                  | 110/120 V | 43 mA                                                  |                  |                   |                          | 65 mA             |                    |                    |
|                                  | 230/240 V | 40 mA                                                  |                  |                   |                          | 65 mA             |                    |                    |
| Tone selection                   |           | DIP switch                                             |                  |                   | externally switchable    |                   |                    | DIP switch         |
| Protection class                 |           | IP 65, UL type 4, 4X, 13                               |                  | IP 54, UL type 12 | IP 65, UL type 4, 4X, 13 | IP 54, UL type 12 | IP 54, UL type 12  |                    |
| Weight                           |           | 90 g                                                   |                  | 100 g             |                          | 110 g             |                    | 140 g              |
| Weight (Bases)                   |           | pls. refer to general weight list                      |                  |                   |                          |                   |                    |                    |

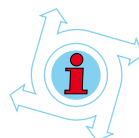


| Tone table           |                               |           |            |                     |              |              |                              |           |
|----------------------|-------------------------------|-----------|------------|---------------------|--------------|--------------|------------------------------|-----------|
| DIP switch           | STE (tone 1 only)             |           |            |                     |              |              | STZ (tone 1 + 2)             |           |
|                      | Tone 1                        |           | Speed      | Tone frequency (Hz) |              | Volume       | Tone 2                       |           |
|                      |                               |           |            | lower               | upper        |              |                              |           |
|                      | Triangle tone                 |           | 7-22 Hz    | 500 Hz              | 1.500 Hz     | 80-100 dB(A) | Continuous tone              |           |
|                      | Continuous tone               |           | -          | 500-1.000 Hz        | 500-1.500 Hz | 83-103 dB(A) | Changing tone                |           |
|                      | Continuous tone               |           | -          | 500-1.000 Hz        | 500-1.500 Hz | 83-103 dB(A) | Interrupted tone             |           |
|                      | Interrupted tone              |           | 0.5-1.5 Hz | 500-1.500 Hz        | 500-1.500 Hz | 83-103 dB(A) | Three tone gong              |           |
|                      | Interrupted tone              |           | 0.5-1.5 Hz | 500-1.500 Hz        | 500-1.500 Hz | 83-103 dB(A) | Siren (non repeating)        |           |
|                      | Changing tone                 |           | 0.5-1.5 Hz | 500-1.500 Hz        | 500-1.500 Hz | 83-103 dB(A) | DIN Emergency Signal         | DIN 33404 |
|                      | Saw tooth tone ascending      |           | 0.5-1.5 Hz | 500-1.500 Hz        | 500-1.500 Hz | 83-103 dB(A) | Continuous tone              |           |
|                      | Saw tooth tone descending     |           | 0.5-1.5 Hz | 500-1.500 Hz        | 500-1.500 Hz | 83-103 dB(A) | Interrupted tone             |           |
|                      | Sinus wave tone               |           | 0.5-1.5 Hz | 500-1.500 Hz        | 500-1.500 Hz | 82-102 dB(A) | DIN Emergency Signal         | DIN 33404 |
|                      | DIN Emergency Signal          | DIN 33404 | 1 Hz       | 500 Hz              | 1.200 Hz     | 82-102 dB(A) | Three tone gong (n. repeat.) |           |
|                      | Siren (non repeating)         |           | 2-4 s      | 1.500 Hz            | 500 Hz       | 83-103 dB(A) | Triangle tone                |           |
|                      | Signal horn (Continuous tone) |           | -          | 100-350 Hz          | 500 Hz       | 64-80 dB(A)  | Continuous tone              |           |
|                      | Three tone gong               |           | 2-4 s      | 660-550-440 Hz      |              | 76-95 dB(A)  | Sinus wave tone              |           |
|                      | Two tone gong                 |           | 2-3 s      | 550-440 Hz          |              | 75-93 dB(A)  | Two tone gong (n. repeat.)   |           |
|                      | Gong                          |           | 1-3 s      | 500-1.500 Hz        | 500 Hz       | 75-93 dB(A)  | Continuous tone              |           |
| ■ set to maximum (+) |                               |           |            |                     |              |              |                              |           |



## Order data

| Type                | Denomination                                                                      | Light options   |          | Tone options                                                 |                                                                | Order No.                                                    |                                                                |                | Nominal voltage (V) |             |              |             |              |
|---------------------|-----------------------------------------------------------------------------------|-----------------|----------|--------------------------------------------------------------|----------------------------------------------------------------|--------------------------------------------------------------|----------------------------------------------------------------|----------------|---------------------|-------------|--------------|-------------|--------------|
|                     |                                                                                   | Bulb            | LED-bulb | Tone types                                                   | Sound pressure                                                 | Housing grey                                                 | Housing black                                                  | Housing silver |                     |             |              |             |              |
| Light-Modules       |                                                                                   |                 |          |                                                              |                                                                |                                                              |                                                                |                |                     |             |              |             |              |
| SLL                 | Steady light                                                                      | GL              | LLL, LLB |                                                              |                                                                | 210 10C 900                                                  | 210 50C 900                                                    | 210 80C 900    | to 250 V AC/DC      |             |              |             |              |
| SLB                 | Flashing light                                                                    | GL              | LLL      |                                                              |                                                                | 220 10C 405                                                  | 220 50C 405                                                    | 220 80C 405    | 12-24 V AC/DC       |             |              |             |              |
|                     |                                                                                   |                 |          |                                                              |                                                                | 220 10C 310                                                  | 220 50C 310                                                    | 220 80C 310    | 110/120 V AC        |             |              |             |              |
|                     |                                                                                   |                 |          |                                                              |                                                                | 220 10C 313                                                  | 220 50C 313                                                    | 220 80C 313    | 230/240 V AC        |             |              |             |              |
| SLF                 | Strobe light                                                                      | 3 J. xenon tube |          |                                                              |                                                                | 230 10C 405                                                  | 230 50C 405                                                    | 230 80C 405    | 12-24 V AC/DC       |             |              |             |              |
|                     |                                                                                   |                 |          |                                                              |                                                                | 230 10C 310                                                  | 230 50C 310                                                    | 230 80C 310    | 110/120 V AC        |             |              |             |              |
|                     |                                                                                   |                 |          |                                                              |                                                                | 230 10C 313                                                  | 230 50C 313                                                    | 230 80C 313    | 230/240 V AC        |             |              |             |              |
| SDC                 | LED-Steady light                                                                  | integrated LED  |          |                                                              |                                                                | 211 10C 404                                                  | 211 50C 404                                                    | 211 80C 404    | 12 V AC/DC          |             |              |             |              |
|                     |                                                                                   |                 |          |                                                              |                                                                | 211 10C 405                                                  | 211 50C 405                                                    | 211 80C 405    | 24 V AC/DC          |             |              |             |              |
|                     |                                                                                   |                 |          |                                                              |                                                                | 211 10C 310                                                  | 211 50C 310                                                    | 211 80C 310    | 110/120 V AC        |             |              |             |              |
|                     |                                                                                   |                 |          |                                                              |                                                                | 211 10C 313                                                  | 211 50C 313                                                    | 211 80C 313    | 230/240 V AC        |             |              |             |              |
| SDA                 | LED-Flashing light                                                                |                 |          |                                                              |                                                                | 221 10C 404                                                  | 221 50C 404                                                    | 221 80C 404    | 12 V AC/DC          |             |              |             |              |
|                     |                                                                                   |                 |          |                                                              |                                                                |                                                              |                                                                |                |                     | 221 10C 405 | 221 50C 405  | 221 80C 405 | 24 V AC/DC   |
|                     |                                                                                   |                 |          |                                                              |                                                                |                                                              |                                                                |                |                     | 221 10C 310 | 221 50C 310  | 221 80C 310 | 110/120 V AC |
|                     |                                                                                   |                 |          |                                                              |                                                                |                                                              |                                                                |                |                     | 221 10C 313 | 221 50C 313  | 221 80C 313 | 230/240 V AC |
| SDR                 | LED-Rotating light                                                                |                 |          |                                                              |                                                                | 231 10C 404                                                  | 231 50C 404                                                    | 231 80C 404    | 12 V AC/DC          |             |              |             |              |
|                     |                                                                                   |                 |          |                                                              |                                                                |                                                              |                                                                |                |                     | 231 10C 405 | 231 50C 405  | 231 80C 405 | 24 V AC/DC   |
|                     |                                                                                   |                 |          |                                                              |                                                                |                                                              |                                                                |                |                     | 231 10C 310 | 231 50C 310  | 231 80C 310 | 110/120 V AC |
|                     |                                                                                   |                 |          |                                                              |                                                                |                                                              |                                                                |                |                     | 231 10C 313 | 231 50C 313  | 231 80C 313 | 230/240 V AC |
| Light-Sound-Modules |                                                                                   |                 |          |                                                              |                                                                |                                                              |                                                                |                |                     |             |              |             |              |
| SLP                 | Steady light - Buzzer                                                             | GL              | LLL, LLB | <div><div></div> conti.</div> <div><div></div> pulsing</div> | <div><div></div> ~ 107 dB</div> <div><div></div> ~ 92 dB</div> | 250 10C 404                                                  | 250 50C 404                                                    | 250 80C 404    | 12 V AC/DC          |             |              |             |              |
|                     |                                                                                   |                 |          |                                                              |                                                                | 250 10C 405                                                  | 250 50C 405                                                    | 250 80C 405    | 24 V AC/DC          |             |              |             |              |
|                     |                                                                                   |                 |          |                                                              |                                                                | 250 10C 310                                                  | 250 50C 310                                                    | 250 80C 310    | 110/120 V AC        |             |              |             |              |
|                     |                                                                                   |                 |          |                                                              |                                                                | 250 10C 313                                                  | 250 50C 313                                                    | 250 80C 313    | 230/240 V AC        |             |              |             |              |
| SLD                 | Steady light - Buzzer<br>Light/Tone separately switchable<br>2 required positions | GL              | LLL, LLB | <div><div></div> conti.</div> <div><div></div> pulsing</div> | <div><div></div> ~ 107 dB</div> <div><div></div> ~ 92 dB</div> | 212 10C 404                                                  | 212 50C 404                                                    | 212 80C 404    | 12 V AC/DC          |             |              |             |              |
|                     |                                                                                   |                 |          |                                                              |                                                                | 212 10C 405                                                  | 212 50C 405                                                    | 212 80C 405    | 24 V AC/DC          |             |              |             |              |
|                     |                                                                                   |                 |          |                                                              |                                                                | 212 10C 310                                                  | 212 50C 310                                                    | 212 80C 310    | 110/120 V AC        |             |              |             |              |
|                     |                                                                                   |                 |          |                                                              |                                                                | 212 10C 313                                                  | 212 50C 313                                                    | 212 80C 313    | 230/240 V AC        |             |              |             |              |
| SBP                 | Flashing light - Buzzer                                                           | GL              | LLL      | <div><div></div> conti.</div> <div><div></div> pulsing</div> | <div><div></div> ~ 107 dB</div> <div><div></div> ~ 92 dB</div> | 260 10C 404                                                  | 260 50C 404                                                    | 260 80C 404    | 12 V AC/DC          |             |              |             |              |
|                     |                                                                                   |                 |          |                                                              |                                                                | 260 10C 405                                                  | 260 50C 405                                                    | 260 80C 405    | 24 V AC/DC          |             |              |             |              |
|                     |                                                                                   |                 |          |                                                              |                                                                | 260 10C 310                                                  | 260 50C 310                                                    | 260 80C 310    | 110/120 V AC        |             |              |             |              |
|                     |                                                                                   |                 |          |                                                              |                                                                | 260 10C 313                                                  | 260 50C 313                                                    | 260 80C 313    | 230/240 V AC        |             |              |             |              |
| SFP                 | Strobe light - Buzzer                                                             | 3 J. xenon tube |          | <div><div></div> conti.</div> <div><div></div> pulsing</div> | <div><div></div> ~ 107 dB</div> <div><div></div> ~ 92 dB</div> | 270 10C 404                                                  | 270 50C 404                                                    | 270 80C 404    | 12 V AC/DC          |             |              |             |              |
|                     |                                                                                   |                 |          |                                                              |                                                                | 270 10C 405                                                  | 270 50C 405                                                    | 270 80C 405    | 24 V AC/DC          |             |              |             |              |
|                     |                                                                                   |                 |          |                                                              |                                                                | 270 10C 310                                                  | 270 50C 310                                                    | 270 80C 310    | 110/120 V AC        |             |              |             |              |
|                     |                                                                                   |                 |          |                                                              |                                                                | 270 10C 313                                                  | 270 50C 313                                                    | 270 80C 313    | 230/240 V AC        |             |              |             |              |
| SCP                 | LED-Steady light - Buzzer                                                         | integrated LED  |          | <div><div></div> conti.</div> <div><div></div> pulsing</div> | <div><div></div> ~ 107 dB</div> <div><div></div> ~ 92 dB</div> | 251 10C 404                                                  | 251 50C 404                                                    | 251 80C 404    | 12 V AC/DC          |             |              |             |              |
|                     |                                                                                   |                 |          |                                                              |                                                                | 251 10C 405                                                  | 251 50C 405                                                    | 251 80C 405    | 24 V AC/DC          |             |              |             |              |
|                     |                                                                                   |                 |          |                                                              |                                                                | 251 10C 310                                                  | 251 50C 310                                                    | 251 80C 310    | 110/120 V AC        |             |              |             |              |
|                     |                                                                                   |                 |          |                                                              |                                                                | 251 10C 313                                                  | 251 50C 313                                                    | 251 80C 313    | 230/240 V AC        |             |              |             |              |
| SAP                 | LED-Flashing light - Buzzer                                                       |                 |          |                                                              |                                                                | <div><div></div> conti.</div> <div><div></div> pulsing</div> | <div><div></div> ~ 107 dB</div> <div><div></div> ~ 92 dB</div> | 261 10C 404    | 261 50C 404         | 261 80C 404 | 12 V AC/DC   |             |              |
|                     |                                                                                   |                 |          |                                                              |                                                                |                                                              |                                                                | 261 10C 405    | 261 50C 405         | 261 80C 405 | 24 V AC/DC   |             |              |
|                     |                                                                                   |                 |          |                                                              |                                                                |                                                              |                                                                | 261 10C 310    | 261 50C 310         | 261 80C 310 | 110/120 V AC |             |              |
|                     |                                                                                   |                 |          |                                                              |                                                                |                                                              |                                                                | 261 10C 313    | 261 50C 313         | 261 80C 313 | 230/240 V AC |             |              |
| SRP                 | LED-Rotating light - Buzzer                                                       |                 |          |                                                              |                                                                | <div><div></div> conti.</div> <div><div></div> pulsing</div> | <div><div></div> ~ 107 dB</div> <div><div></div> ~ 92 dB</div> | 271 10C 404    | 271 50C 404         | 271 80C 404 | 12 V AC/DC   |             |              |
|                     |                                                                                   |                 |          |                                                              |                                                                |                                                              |                                                                | 271 10C 405    | 271 50C 405         | 271 80C 405 | 24 V AC/DC   |             |              |
|                     |                                                                                   |                 |          |                                                              |                                                                |                                                              |                                                                | 271 10C 310    | 271 50C 310         | 271 80C 310 | 110/120 V AC |             |              |
|                     |                                                                                   |                 |          |                                                              |                                                                |                                                              |                                                                | 271 10C 313    | 271 50C 313         | 271 80C 313 | 230/240 V AC |             |              |

**NOTE:**

Light sources have to be ordered separately (pls. refer to order data- accessories).





## Order data

| Type | Denomination                                                                                                              | Tone options                                                                                 |                                                                                            | Order No.    |               |                | Nominal voltage (V) |
|------|---------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------|---------------|----------------|---------------------|
|      |                                                                                                                           | Tone type                                                                                    | Sound pressure                                                                             | Housing grey | Housing black | Housing silver |                     |
|      | Sound-Modules                                                                                                             |                                                                                              |                                                                                            |              |               |                |                     |
| SDE  | Piezo Buzzer, IP 65<br>tone type and sound pressure<br>selectable by DIP switch                                           |  continuous |  ~ 107 dB | 247 100 404  | 247 500 404   | 247 800 404    | 12 V AC/DC          |
|      |                                                                                                                           |                                                                                              |                                                                                            | 247 100 405  | 247 500 405   | 247 800 405    | 24 V AC/DC          |
|      |                                                                                                                           |  pulsing    |  ~ 92 dB  | 247 100 310  | 247 500 310   | 247 800 310    | 110/120 V AC        |
|      |                                                                                                                           |                                                                                              |                                                                                            | 247 100 313  | 247 500 313   | 247 800 313    | 230/240 V AC        |
| SPE  | Piezo Buzzer, IP 54<br>tone type and sound pressure<br>selectable by DIP switch                                           |  continuous |  ~ 97 dB  | 243 100 404  | 243 500 404   | 243 800 404    | 12 V AC/DC          |
|      |                                                                                                                           |                                                                                              |                                                                                            | 243 100 405  | 243 500 405   | 243 800 405    | 24 V AC/DC          |
|      |                                                                                                                           |  pulsing    |  ~ 85 dB  | 243 100 310  | 243 500 310   | 243 800 310    | 110/120 V AC        |
|      |                                                                                                                           |                                                                                              |                                                                                            | 243 100 313  | 243 500 313   | 243 800 313    | 230/240 V AC        |
| SDZ  | Piezo Buzzer, IP 65<br>tone type externally switchable<br>sound pressure adjustable by DIP switch<br>2 required positions | continuous<br>and pulsing                                                                    |  ~ 107 dB | 248 100 404  | 248 500 404   | 248 800 404    | 12 V AC/DC          |
|      |                                                                                                                           |                                                                                              |                                                                                            | 248 100 405  | 248 500 405   | 248 800 405    | 24 V AC/DC          |
|      |                                                                                                                           |                                                                                              |  ~ 92 dB  | 248 100 310  | 248 500 310   | 248 800 310    | 110/120 V AC        |
|      |                                                                                                                           |                                                                                              |                                                                                            | 248 100 313  | 248 500 313   | 248 800 313    | 230/240 V AC        |
| SPZ  | Piezo Buzzer, IP 54<br>tone type externally switchable<br>sound pressure adjustable by DIP switch<br>2 required positions |                                                                                              |  ~ 97 dB  | 244 100 404  | 244 500 404   | 244 800 404    | 12 V AC/DC          |
|      |                                                                                                                           |                                                                                              |                                                                                            | 244 100 405  | 244 500 405   | 244 800 405    | 24 V AC/DC          |
|      |                                                                                                                           |                                                                                              |  ~ 85 dB  | 244 100 310  | 244 500 310   | 244 800 310    | 110/120 V AC        |
|      |                                                                                                                           |                                                                                              |                                                                                            | 244 100 313  | 244 500 313   | 244 800 313    | 230/240 V AC        |
|      | Electronic Sounder-Modules                                                                                                |                                                                                              |                                                                                            |              |               |                |                     |
| STE  | Electronic Sounder, IP 54<br>tone type selectable by DIP switch, upper/lower<br>frequency and speed infinitely variable   | 15 tone<br>types<br>see sound<br>table                                                       | 64-103 dB                                                                                  | 241 100 405  | 241 500 405   | 241 800 405    | 12-24 V AC/DC       |
|      |                                                                                                                           |                                                                                              |                                                                                            | 241 100 310  | 241 500 310   | 241 800 310    | 110/120 V AC        |
|      |                                                                                                                           |                                                                                              |                                                                                            | 241 100 313  | 241 500 313   | 241 800 313    | 230/240 V AC        |
| STZ  | Electronic Sounder, IP 54<br>2 tone types externally switchable, upper/lower<br>frequency and speed infinitely variable   |                                                                                              |                                                                                            | 242 100 405  | 242 500 405   | 242 800 405    | 12-24 V AC/DC       |
|      |                                                                                                                           |                                                                                              |                                                                                            | 242 100 310  | 242 500 310   | 242 800 310    | 110/120 V AC        |
|      |                                                                                                                           |                                                                                              |                                                                                            | 242 100 313  | 242 500 313   | 242 800 313    | 230/240 V AC        |

| ORDER DATA ACCESSORIES |                     |             |
|------------------------|---------------------|-------------|
| Type                   | Nominal Voltage (V) | Order No.   |
| GL01                   | 12 V 5 W            | 890 010 904 |
| GL02                   | 24 V 7 W            | 890 010 905 |
| GL03                   | 48 V 7 W            | 890 010 908 |
| GL04                   | 60 V 7 W            | 890 010 909 |
| GL05                   | 110/120 V 7 W       | 890 010 910 |
| GL06                   | 230/240 V 7 W       | 890 010 913 |

| Type                   | Nominal voltage (V) | Order No.   |
|------------------------|---------------------|-------------|
| <b>LED-Lampe BA15d</b> |                     |             |
| LLL                    | 12 V AC/DC          | 893 00C 404 |
|                        | 24 V AC/DC          | 893 00C 405 |
|                        | 48 V AC/DC          | 893 00C 408 |
|                        | 110/120 V AC        | 893 00C 310 |
|                        | 230/240 V AC        | 893 00C 313 |
| <b>Flashing light</b>  |                     |             |
| LLB                    | 12 V AC/DC          | 893 01C 404 |
|                        | 24 V AC/DC          | 893 01C 405 |
|                        | 48 V AC/DC          | 893 01C 408 |
|                        | 110/120 V AC        | 893 01C 310 |
|                        | 230/240 V AC        | 893 01C 313 |

### Colour code for lens

C

|   |       |   |        |
|---|-------|---|--------|
| 1 | amber | 5 | blue   |
| 2 | red   | 6 | green  |
| 4 | clear | 7 | yellow |

### Length code for tubes

L

|   |                     |   |        |
|---|---------------------|---|--------|
| 1 | 50 mm (not for BFR) | 5 | 500 mm |
| 2 | 100 mm              | 6 | 600 mm |
| 3 | 250 mm              | 7 | 800 mm |
| 4 | 400 mm              |   |        |



## Order data

| Type | Bases                                                                          | Order No.    |               |                |
|------|--------------------------------------------------------------------------------|--------------|---------------|----------------|
|      |                                                                                | Housing grey | Housing black | Housing silver |
| BMW  | Base for horizontal mounting                                                   | 200 100 900  | 200 500 900   | 200 810 900    |
| BMV  | Base for vertical mounting                                                     | 200 200 900  | 200 600 900   | 200 820 900    |
| BMR  | Pole mount base on aluminium tube with plastic foot                            | 200 30L 900  | 200 70L 900   | 200 80L 900    |
| BSR  | Pole mount base on stainless steel tube with zinc die-cast foot, powder coated | 200 31L 900  | 200 71L 900   | 200 81L 900    |
| BWS  | Pole mount base for horizontal mounting with screw                             | 200 33L 900  | 200 73L 900   | 200 83L 900    |
| BSS  | Set for vertical mounting (for BWS)                                            | 200 400 900  | 200 800 900   |                |
| BFR  | Pole mount base on aluminium tube with foot adapter for quick mounting         | 200 34L 900  | 200 74L 900   | 200 84L 900    |
|      | Cap - is automatically included with each base                                 |              |               |                |

## AS-INTERFACE

The integration of the modulSIGNAL70 signal tower into AS-Interface field bus systems is easily possible with the new AS-Interface module type BAZ. The new AS-Interface module BAZ is optionally available with standard-slave or the new A/B technique.

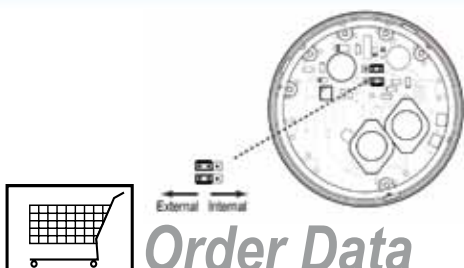
The AS-Interface module with standard slave can address up to 31 modules and maximum 4 modules on the signal tower. The option with A/B technique is able to address up to 62 modules and 3 or 4 modules on the signal tower.

When using internal power supply from the bus system maximum 200 mA are available for the signal tower elements.

### Features

- LED-status indicator – check routine
- modules for 31 or 62 addresses
- available with standard or A/B technique
- internal (via bus system) or external power supply selectable
- easy integration of signal tower as actor into the actor-sensor-interface system BAZ-module is mounted as first module directly onto the signal tower base
- significantly reduced wiring work

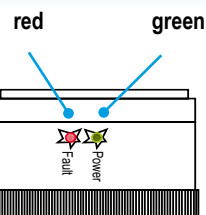
### Selection of module powering



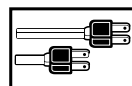
## Order Data

| Type | Description                                                    | Order-Nr.   |
|------|----------------------------------------------------------------|-------------|
| BAZ  | AS-Interf. module for 31 slaves - up to 3 signal tower modules | 280 500 510 |
|      | AS-Interf. module for 62 slaves - up to 3 signal tower modules | 280 500 000 |
|      | AS-Interf. module for 62 slaves - up to 4 signal tower modules | 280 500 100 |

### Status indication



| green | red | Status                                                     |
|-------|-----|------------------------------------------------------------|
| ●     | ○   | Normal operation                                           |
| ●     | ●   | No data exchange                                           |
| ★     | ●   | No data exchange, Slave-adress = 0                         |
| ★     | ★   | Peripheral fault, overcurrent or low voltage on the output |



## Technical data

| Type                                    | BAZ                                          |             |             |
|-----------------------------------------|----------------------------------------------|-------------|-------------|
| order number                            | 280 500 510                                  | 280 500 000 | 280 500 100 |
| number of slaves                        | 31                                           | 62          | 62          |
| number of modules                       | 4                                            | 3           | 4           |
| IO-Code                                 | 8                                            | 7           | 7           |
| ID-Code                                 | F                                            | A           | A           |
| ID2-Code                                |                                              | E           | 7           |
| Datenbits                               | D0...Modul 0                                 |             |             |
|                                         | D1...Modul 1                                 |             |             |
|                                         | D2...Modul 2                                 |             |             |
|                                         | D3...Modul 3                                 |             |             |
| current from A S-Interface line         | max. 250 mA                                  |             |             |
| temperature range                       | -20° bis +50° C                              |             |             |
| protection class                        | IP 65                                        |             |             |
| AS-Interface voltage range              | 26,5 - 31,6 V                                |             |             |
| module power from the AS-Interface line | max. 200 mA                                  |             |             |
| external power supply                   | PELV, 24 V DC +/- 10%, max. 300 mA per Modul |             |             |
| housing material                        | polycarbonate, black                         |             |             |

## ACCESSORIES POLE CONNECTION BOXES

For additional installation possibilities of pole mount assemblies BMR:

- Surface cable conduits in protection class IP 65 – horizontally or vertically
- Model with magnetic base for mobile mounting, signalling device in protection class IP 65 on metal surfaces

### Code for thread

|   |          |   |       |
|---|----------|---|-------|
| 1 | M 20     | 3 | PG 16 |
| 2 | NPT 1/2" |   |       |

### BDW



### BDV



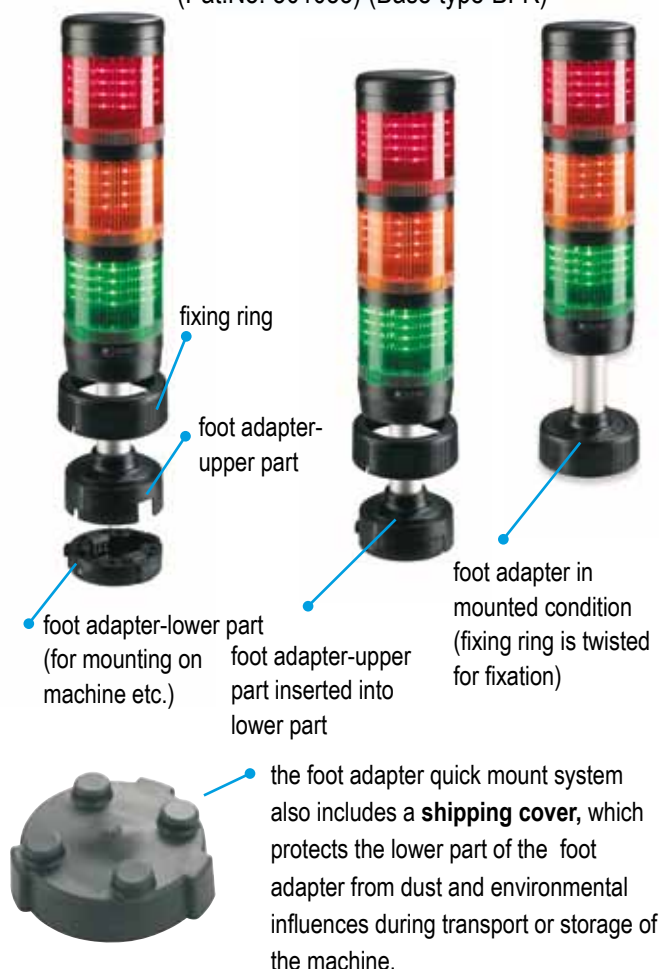
### BDM



| Type | Pole connection box     | Order No.    |               |                | Weight (g) |
|------|-------------------------|--------------|---------------|----------------|------------|
|      |                         | Housing grey | Housing black | Housing silver |            |
| BDW  | for horizontal mounting | 841 10T 900  | 841 50T 900   | 841 80T 900    | 90         |
| BDV  | for vertical mounting   | 841 11T 900  | 841 51T 900   | 841 81T 900    | 110        |
| BDM  | for magnetic mounting   | 841 12T 900  | 841 52T 900   | 841 82T 900    | 330        |

## QUICK MOUNT SYSTEM „FOOT ADAPTER“

(Pat.No. 501053) (Base type BFR)



### Function

- the signal tower with pole mount base on aluminium tube with foot adapter for quick mounting (BFR) is electrically pre-wired
- the foot adapter lower part is mounted on the machine etc. and electrically connected
- the signal tower with foot adapter upper part is inserted into the lower part and firmly mounted by twisting the fixing ring
- the signal tower is immediately fully operable

### Advantages

- simple and cost saving disassembly of signal tower for transport of machine etc.
- quick cost saving installation of complete signal tower at client
- immediate function, no electrical connection required at client
- safe transport of signal tower (separately packed)
- additional locking option of signal tower with safety screw that cannot be lost
- signal tower fits only in one position onto the foot adapter lower part – no wrong installation of signal tower possible

## How to order Signal Tower modul SIGNAL70

| Configuration 24 V AC/DC     | Position | Type | Order No. Catalogue | correct order no. |
|------------------------------|----------|------|---------------------|-------------------|
| Steady light blue            | 5        | SLL  | 210 50C 900         | 210 505 900       |
| Steady light amber           | 4        | SLL  | 210 50C 900         | 210 501 900       |
| Steady light clear           | 3        | SLL  | 210 50C 900         | 210 504 900       |
| Steady light red             | 2        | SLL  | 210 50C 900         | 210 502 900       |
| Steady light green           | 1        | SLL  | 210 50C 900         | 210 506 900       |
| Base for horizontal mounting |          | BMW  | 200 500 900         | 200 500 900       |
| 5 x bulb                     |          | GL02 | 890 010 905         | 890 010 905       |

| Configuration 230 V AC                  | Position | Type | Order No. Catalogue | correct order no. |
|-----------------------------------------|----------|------|---------------------|-------------------|
| Electronic Sounder module 15 tone types | 3        | STE  | 241 100 313         | 241 100 313       |
| LED-flashing light red                  | 2        | SDA  | 221 10C 313         | 221 102 313       |
| LED-steady l. green                     | 1        | SDC  | 211 10C 313         | 211 106 313       |
| Base for vertical mounting              |          | BMV  | 200 200 900         | 200 200 900       |

| Configuration 230 V AC       | Position | Type | Order No. Catalogue | correct order no. |
|------------------------------|----------|------|---------------------|-------------------|
| Flashing module, red         | 1        | SBP  | 260 50C 313         | 260 502 313       |
| Base for horizontal mounting |          | BMW  | 200 500 900         | 200 500 900       |
| 1 x bulb                     |          | GL06 | 890 010 913         | 890 010 913       |

| Configuration 24 V AC/DC                                                                    | Position | Type | Order No. Catalogue | correct order no. |
|---------------------------------------------------------------------------------------------|----------|------|---------------------|-------------------|
| LED-rotating light-buzzer module, red                                                       | 1        | SRP  | 271 50C 405         | 271 502 405       |
| Pole mount base on stainless steel tube with zinc die cast foot, powder coated, 100 mm long |          | BSR  | 200 71L 900         | 200 712 900       |

| Configuration 24 V AC/DC                                         | Position | Type | Order No. Catalogue | correct order no. |
|------------------------------------------------------------------|----------|------|---------------------|-------------------|
| Strobe light blue                                                | 1        | SLF  | 230 10C 405         | 230 105 405       |
| Pole mount base on aluminium tube with plastic foot, 100 mm long |          | BMR  | 200 30L 900         | 200 302 900       |
| Pole connection box for horizontal mounting                      |          | BDW  | 841 10T 900         | 841 101 900       |

