

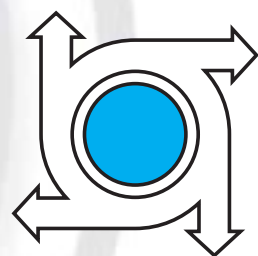
Signal Towers



*Your Signalling
Solution!*



DISCOVER
the largest
European made
all C€ and cⓈULⓈ certified
SIGNAL TOWER
Range



auer

S I G N A L G E R Ä T E

*Your Signalling
Solution!*



Original Size

*Your Signalling
Solution!*



single / dual tone buzzer
single / dual tone electronic
sounders

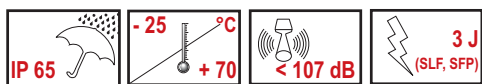
steady light - bulb / LED
flashing light - bulb / LED
rotating light - LED
xenon light

light-buzzer combinations
(bulb / LED / xenon-buzzer)

horizontal-vertical-pole-quick
mounting options



modul**SIGNAL**70



70 mm

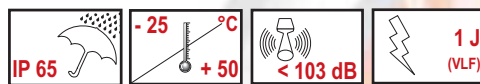


single / dual tone buzzer

steady light - bulb / LED
flashing light - bulb / LED
xenon light

horizontal-vertical-pole-
quick mounting options

modul**SIGNAL**50



50 mm

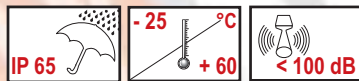


single / dual tone buzzer

steady light - LED
flashing light - LED

horizontal-vertical-pole-quick
mounting options

modul**COMPACT**70



70 mm

Page 16-21

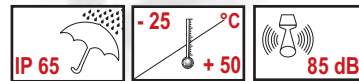


single / dual tone buzzer

steady light - LED
flashing light - LED

horizontal-vertical-pole-quick
mounting options

modul**COMPACT**30



30 mm

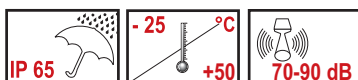
Page 22-27



halfDOME

dual tone buzzer

half**DOME**90

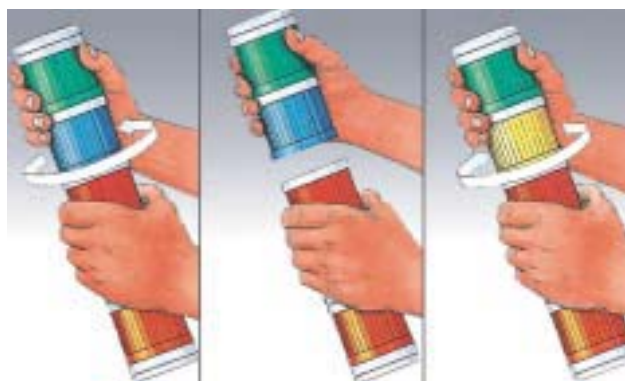


steady light - LED
flashing light - LED

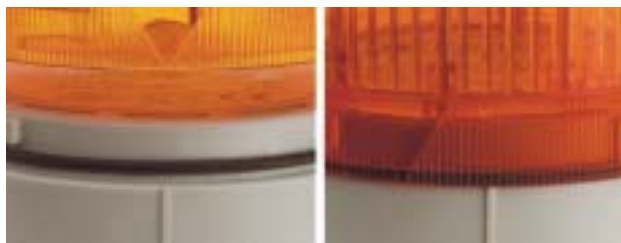
90 mm

direct mounting





- modularly constructed 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



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 ft (leakage/inrush current)
- UL certified, Protection class IP 65, UL type 4, 4X, 13

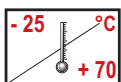
module contacts



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 9.



CONFIGURATION

SIGNAL TOWER moduSIGNAL70



LIGHT MODULES	Light source	Type
Steady light	bulb or 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 or LED-bulb	SLP
Steady light - Buzzer light and tone separately 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 and sound pressure selectable with DIP switches	85-107 dB	SDE
		SPE
Continuous and pulsing tone ex- ternally switchable, sound pres- 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 DIP switch	64-103 dB	STE
2 tone types externally switchable		STZ

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



BASES



horizontal
BMW

vertical
BMV



on aluminium tube
with plastic foot
BMR



on stainless steel
tube with zinc-die
cast foot
BSR



on aluminium
tube for horizontal
mounting with
screw
BWS



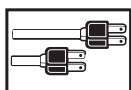
BWS + BSS



set for
vertical mounting
BSS
(for BWS)



on aluminium tube
with foot adapter
for quick mounting
BFR



Technical data

for all modul SIGNAL70 modules/products:

Housing material	polycarbonate, grey or black
Lens material	polycarbonate
Lens colours	amber, red, clear, blue, green, yellow
Terminals	up to 2,5 mm ²
Temperature range	-25 °C bis +70 °C

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 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 potentiometer		
		selectable by DIP switch						
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 54 UL type 12	IP 54 UL type 12	IP 54 UL type 12		
Weight		90 g	100 g			110 g	140 g	

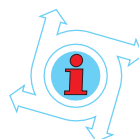


Tone table								
DIP switch	STE (tone 1 only)						STZ (tone 1 + 2)	
	Tone 1		Speed	Tone frequency (Hz)		Volume	Tone 2	
				lower	upper			
	Triangle tone		7-22 Hz	500 Hz	1.500 Hz	80-100 dB(A)	Continuous tone	
	Continuous tone		x	500-1.500 Hz		83-103 dB(A)	Changing tone	
	Continuous tone		x	500-1.500 Hz		83-103 dB(A)	Interrupted tone	
	Interrupted tone		0.5-1.5 Hz	500-1.500 Hz		83-103 dB(A)	Three tone gong	
	Interrupted tone		0.5-1.5 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	500 Hz	1.500 Hz	83-103 dB(A)	Triangle tone	
	Signal horn (Continuous tone)		x	100-350 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	75-93 dB(A)	Continuous tone	
set to maximum (+)								



Order data

Type	Leuchtenmodule	Light options		Tone options		Order No.			Nominal voltage (V)
		Bulb	LED-bulb	Tone type	Sound pressure	Housing grey	Housing black	Housing silver	
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	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	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
SLP	Steady light - Buzzer	GL	LLL, LLB	☐ continuous ☐ pulsing	☐ ~ 107 dB ☐ ~ 92 dB	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 Light/Tone separately switchable 2 required positions	GL	LLL, LLB	☐ continuous ☐ pulsing	☐ ~ 107 dB ☐ ~ 92 dB	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	☐ continuous ☐ pulsing	☐ ~ 107 dB ☐ ~ 92 dB	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	xenon tube		☐ continuous ☐ pulsing	☐ ~ 107 dB ☐ ~ 92 dB	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	LED		☐ continuous ☐ pulsing	☐ ~ 107 dB ☐ ~ 92 dB	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			☐ continuous ☐ pulsing	☐ ~ 107 dB ☐ ~ 92 dB	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			☐ continuous ☐ pulsing	☐ ~ 107 dB ☐ ~ 92 dB	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	Piezo-Buzzer-Modules	Tone options		Order No.			Nominal voltage (V)
		Tone type	Sound pressure	Housing grey	Housing black	Housing silver	
SDE	Piezo Buzzer, IP 65 tone type and sound pressure 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 tone type and sound pressure 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 tone type externally switchable sound pressure adjustable by DIP switch 2 required positions	continuous 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		
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 tone type externally switchable sound pressure adjustable by DIP switch 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
				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 tone type selectable by DIP switch, upper/lower frequency and speed infinitely variable	15 tone types see sound 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 2 tone types externally switchable, upper/lower 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.
LED-Lampe BA15d		
Steady light		
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
Flashing light		
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.

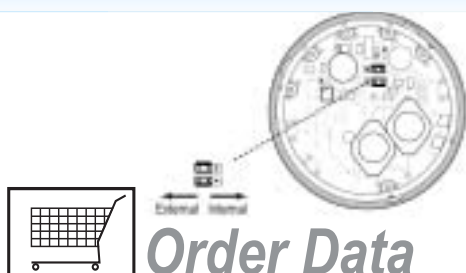
The AS-Interface module with standard slave can address up to 31 modules and maximum 4 modules on the signal tower. The option with A/B technique is able to address up to 62 modules and 3 or 4 modules on the signal tower.

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

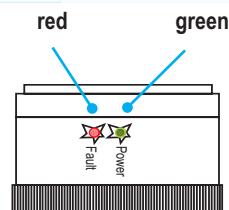
Selection of module powering



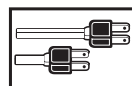
Order Data

Type	Description	Order-Nr.
BAZ	AS-Interface module for 31 slaves	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-address = 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



BDM



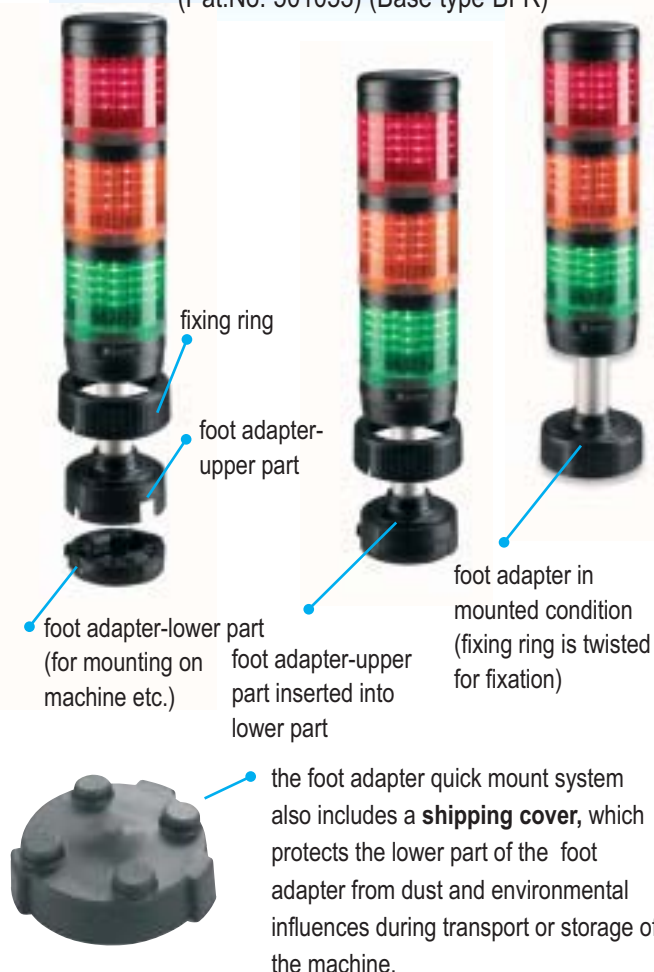
BDV



Type	Pole connection box	order-Nr.			Peso (g)
		Housing grey	Housing black	Gehäuse silber	
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

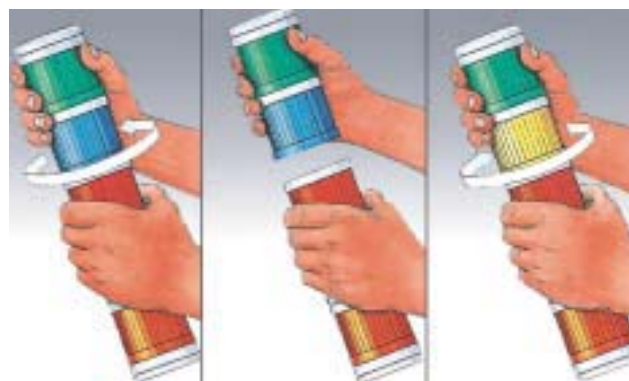
Configuration 230 V AC	Position	Type	Order No. Catalogue	correct order no.
Electronic Sounder module 15 tone types	3	STE	241 100 313	241 100 313
LED-flashing light red	2	SDA	221 10C 313	221 102 313
LED-steady l. green	1	SDC	211 10C 313	211 106 313
Base for vertical mounting		BMV	200 200 900	200 200 900

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





- modularly constructed 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

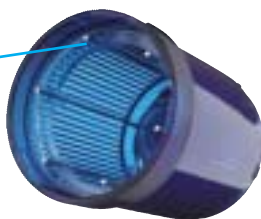


- safety screws for additional safety of modules against unauthorized opening

Features

- modularly designed, versatile, flexible and powerful signal towers for smaller machines
- any desired combination possible for many different kind of applications
- complete range of visual and audible modules in all conventional voltages
- extensive mounting options
- PLC ft (leakage/inrush current)
- UL certified, Protection class IP 65, UL type 4, 4X, 13

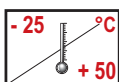
modul contacts



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



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 15.



CONFIGURATION

SIGNAL TOWER modulSIGNAL50

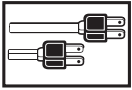


LIGHT MODULES	Light source	Type
Steady light	bulb or LED-bulb	VLL
Flashing light		VLB
Strobe light	xenon tube	VLF
PIEZO BUZZER	Sound pressure	Type
Continuous or pulsing tone and sound pressure selectable with DIP switches	88 -103 dB	VDE
Continuous and pulsing tone externally switchable sound pressure selectable with DIP-switch		VDZ



BASES





Technical data

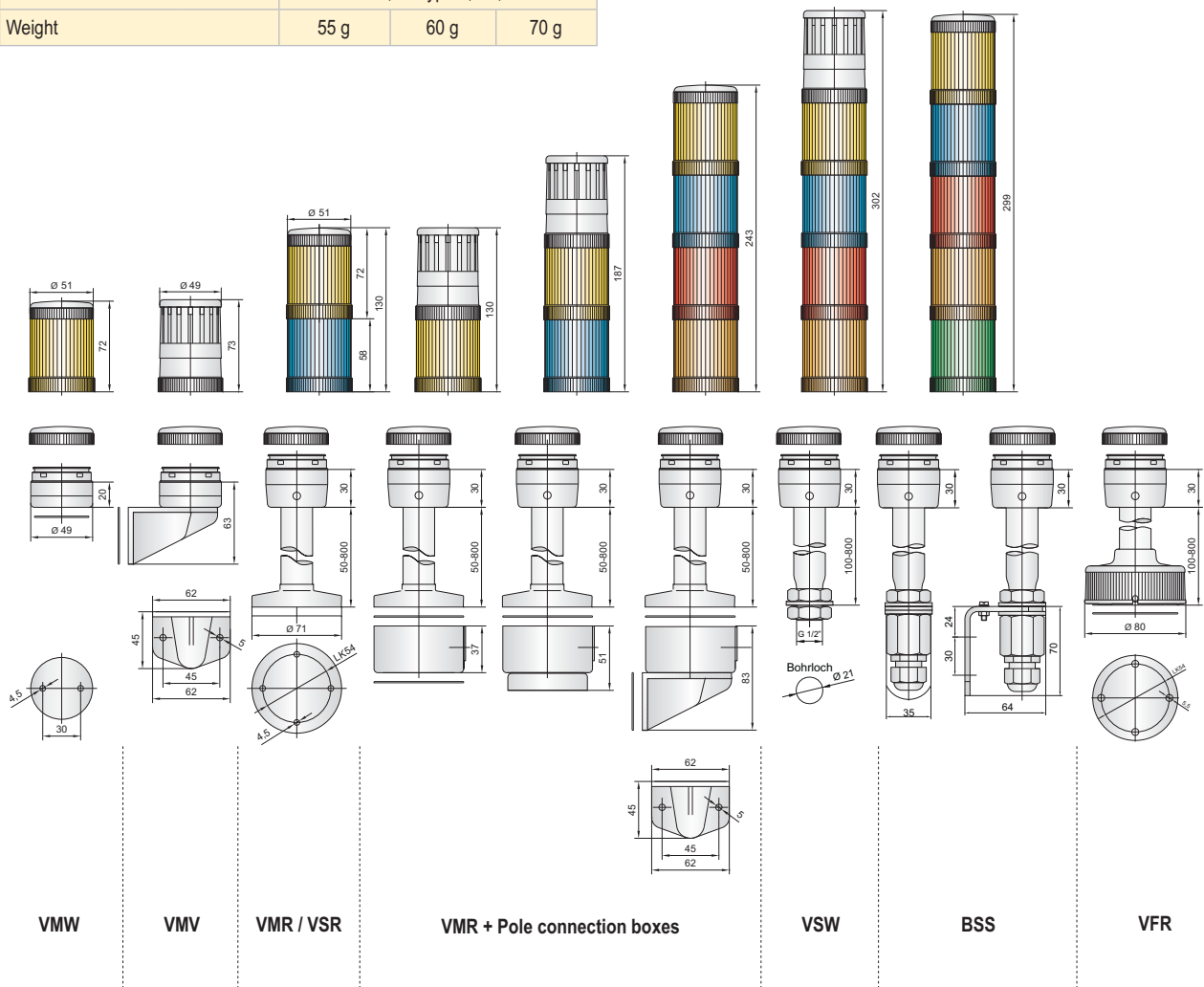
for all modulSIGNAL50 modules/products:

Housing material	polycarbonate, grey or black
Lens material	polycarbonate
Lens colours	amber, red, clear, blue, green, yellow

Terminals	up to 2,5 mm ²
Temperature range	-25 °C to +50 °C

Light modules		VLL	VLB	VLF
Bulb		7 W		
Socket BA15d		X		
Flashing-/Strobe frequency			2 Hz	1,4 Hz
Lifetime		~ 10 Mio. flashes		
Strobe energy				1 J
Light emission		360°		
Light type		steady light	flashing l.	strobe light
Leakage		3 mA		
Nominal current	12 V	max. 5 W		110 mA
	24 V	max. 7 W		70 mA
	110/120 V			26 mA
	230/240 V			15 mA
Protection class		IP 65, UL type 4, 4X, 13		
Weight		55 g	60 g	70 g

Buzzer modules		VDE	VDZ
Tone type		continuous and pulsing tone	
Tone frequency		2.800 Hz	
Sound pressure level		88 / 103 dB with DIP-switch selectable	
Leakage		3 mA	
Nominal current	12 V	12 mA	
	24 V	25 mA	
	110/120 V	33 mA	
	230/240 V	33 mA	
Tone selection		DIP-switch	externally switchable
Protection class		IP 65, UL type 4, 4X, 13	
Weight		100 g	





Order data

Type	Light modules	Light options		Order No.			Nominal voltage (V)
		Glühlampe	LED-Lampe				
VLL	Steady light	GL	LLL, LLB	750 00C 900			bis 250 V AC/DC
VLB	Flashing light	GL	LLL	760 00C 405			12-24 V AC/DC
				760 00C 310			110/120 V AC
				760 00C 313			230/240 V AC
VLF	Strobe light	Xenonröhre		770 00C 405			12-24 V AC/DC
				770 00C 310			110/120 V AC
				770 00C 313			230/240 V AC
	Piezo Buzzer modules	Tone options		Housing grey	Housing black	Housing silver	
		Tone type	Sound pressure				
VDE	Piezo Buzzer, IP 65 tone type and sound pressure selectable with DIP-switch	 continuous	 103 dB	781 100 404	781 500 404	781 800 404	12 V AC/DC
				781 100 405	781 500 405	781 800 405	24 V AC/DC
		 pulsing	 88 dB	781 100 310	781 500 310	781 800 310	110/120 V AC
				781 100 313	781 500 313	781 800 313	230/240 V AC
VDZ	Piezo Buzzer, IP 65 tone type extern. switch. sound pressure selectable by DIP-switch 2 required positions	continuous and pulsing	 103 dB  88 dB	782 100 404	782 500 404	782 800 404	12 V AC/DC
				782 100 405	782 500 405	782 800 405	24 V AC/DC
				782 100 310	782 500 310	782 800 310	110/120 V AC
				782 100 313	782 500 313	782 800 313	230/240 V AC
	Bases			Housing grey	Housing black	Housing silver	
VMW	Base for horizontal mounting			790 120 900	790 520 900	790 820 900	
VMV	Base for vertical mounting			790 140 900	790 540 900	790 840 900	
VMR	Pole mount base on aluminium tube with plastic foot			790 14L 900	790 54L 900	790 84L 900	
VSR	Pole mount base on stain. steel tube with zinc die-cast foot, powder coated			790 15L 900	790 55L 900	790 85L 900	
VSW	Pole mount base for horizontal mounting with screw			790 17L 900	790 57L 900	790 87L 900	
BSS	Set for vertical mounting (for VSW)			200 400 900	200 800 900	200 800 900	
VFR	Pole mount base on aluminium tube with foot adapter for quick mounting			790 18L 900	790 58L 900	790 88L 900	
	Cap - is automatically included with each base						

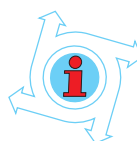
ORDER DATA ACCESSORIES		
Type	Nominal voltage (V)	Order No.
GL01	12 V 5 W	890 010 904
GL02	24 V 7 W	890 010 905
GL03	48 V 7 W	890 010 908
GL04	60 V 7 W	890 010 909
GL05	110/120 V 7 W	890 010 910
GL06	230/240 V 7 W	890 010 913
LED-Bulb BA15d		
Steady light		
LLL	12 V AC/DC	893 00C 404
	24 V AC/DC	893 00C 405
	48 V AC/DC	893 00C 408
	110/120 V AC	893 00C 310
	230/240 V AC	893 00C 313
Flashing light		
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

Längencode für Rohr L

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



NOTE:

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

ACCESSORY SAFETY SCREWS

- additional safety device of modules against unauthorized opening

Type	Description	Order No.
	Safety screw set	700 000 900

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 VAZ. The new AS-Interface module VAZ 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 VAZ-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.
VAZ	AS-Interface module for 31 slaves	780 500 500
	AS-Interf. module for 62 slaves - up to 3 signal tower modules	780 500 600
	AS-Interf. module for 62 slaves - up to 4 signal tower modules	780 500 700

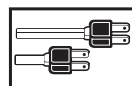


Status indication

red green



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



Technical data

Type	VAZ		
order number	780 500 500	780 500 600	780 500 700
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 AS-Interface line	max. 180 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. 130 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



BDM



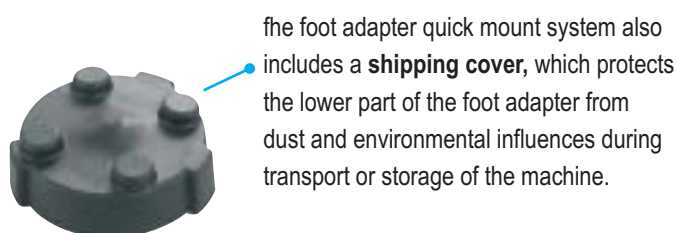
BDV



Type	Pole connection box	order-Nr.		Gehäuse silber	Peso (g)
		Housing grey	Housing black		
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 VFR)



Function

- the signal tower with pole mount base on aluminium tube with foot adapter for quick mounting (VFR) 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 modulSIGNAL50

Configuration 24 V AC/DC	Position	Type	Order No. Catalogue	correct order no.
Steady light red	3	VLL	750 00C 900	750 002 900
Flashing light amber	2	VLB	760 00C 405	760 001 405
Steady light green	1	VLL	750 00C 900	750 006 900
Pole mount base on aluminium tube with foot adapter for quick mounting, 100 mm long		VFR	790 58L 900	790 582 900
3 x bulb		GL02	890 010 905	890 010 905

Configuration 24 V AC/DC	Position	Type	Order No. Catalogue	correct order no.
Strobe light amber	3	VLF	770 00C 405	770 001 405
Steady light blue	2	VLL	750 00C 900	750 005 900
Steady light red	1	VLL	750 00C 900	750 002 900
Pole mount base on aluminium tube for horizontal mounting with screw, 250 mm long		VSW	790 57L 900	790 573 900
2 x bulb		GL02	890 010 905	890 010 905

Configuration 230 V AC	Position	Type	Order No. Catalogue	correct order no.
Buzzer-module	4 / 3	VDZ	782 100 313	782 100 313
LED-steady light green	2	VLL	750 00C 900	750 006 900
LED-Bulb green		LLL	893 00C 313	893 006 313
LED-flashing light red	1	VLL	750 00C 900	750 002 900
LED-Bulb red		LLB	893 01C 313	893 012 313
Base for vertical mounting		VMV	790 140 900	790 140 900





Features

- modularly designed flexible LED signal tower system
- signal tower is supplied ready for installation according to buyer's specifications
- available in voltages 24 V AC/DC, 110/120 V AC and 230/240 V AC
- 6 lens colours, 2 housing colours
- PLC fit (leakage/inrush current)
- UL-certified, protection class IP 65, UL 4, 4X, 13
- excellent price-performance ratio



optional model modulCOMPACT70

As an option to the standard version (single modules are assembled) in projects with higher quantities with same configuration a single pcb model can be offered. This minimizes in larger projects the cost per signal tower and allows the most economic solution. This product option is offered with 8 LEDs per position (single modules 10 LEDs)



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



Quick mounting system "Foot adapter" saves the customer the electrical connection and eases considerably mounting of signal tower for machine manufactures and their customers. Detailed description see page 19.

CONFIGURATION

LED-SIGNAL TOWER modulCOMPACT70



LIGHT MODULES	Light source	Type
LED-Steady light	LED	DLL
LED-Flashing light		DLB
PIEZO BUZZER	Sound pressure	
Continuous tone	100 dB	DDD
	85 dB	DLD
Pulsing tone	100 dB	DDP
	85 dB	DLP
Continuous and Pulsing tone externally switchable	100 dB	DDZ
	85 dB	DLZ



BASES



horizontal
DMW

vertical
DMV

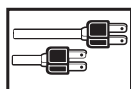
on aluminium pole
with plastic foot
DMR

on aluminium pole
for horizontal
mounting with
screw
DSW

DSW + BSS

set for vertical
mounting
BSS
(with DSW)

on aluminium pole
with foot adapter
for
quick mounting
DFR



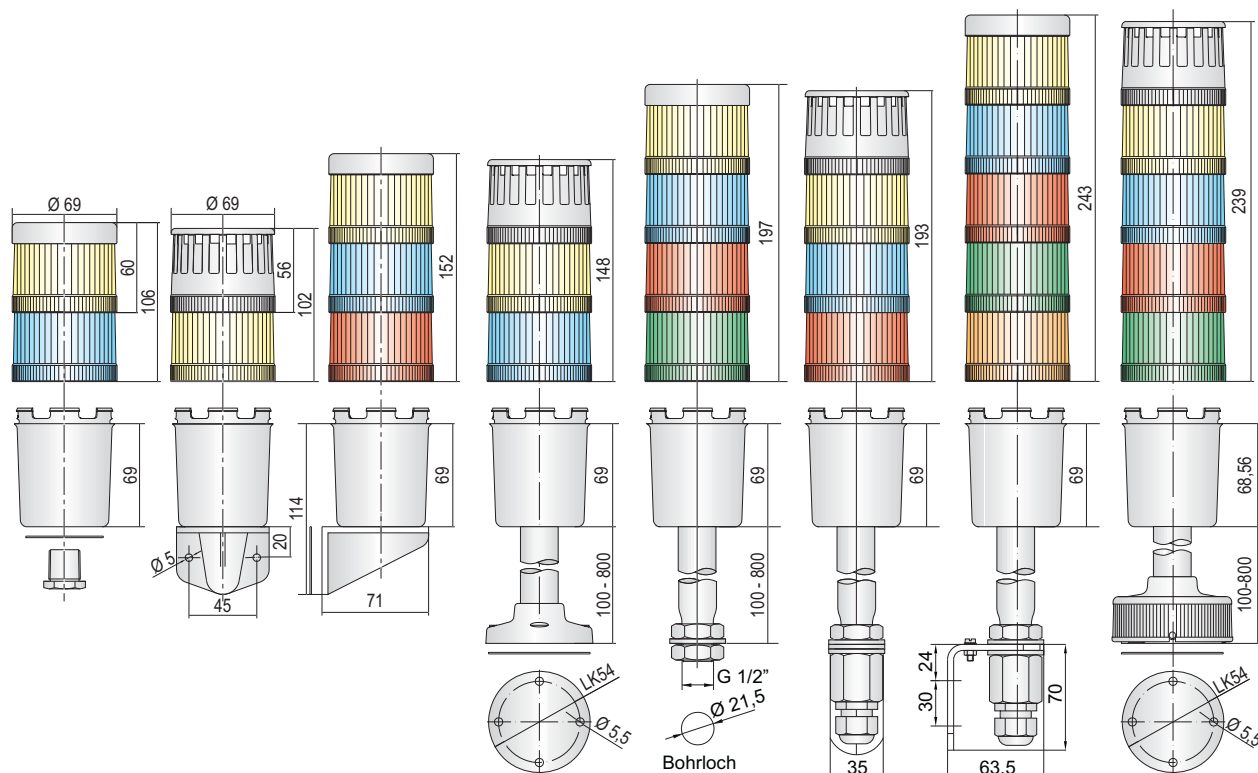
Technical data

for all modulCOMPACT70 modules/products:

Housing material	polycarbonate, grey or black
Lens material	polycarbonate
Lens colours	amber, red, clear, blue, green, yellow
Terminal	pre-wired, 1 m cable length - other lengths available on request
Temperature range	-25 °C to +60 °C

Light modules	DLL	DLB
Lighttype - LED	steady light	flashing light
Flashing frequency		2 Hz
Light emission	360°	
Leakage/Inrush current	3 mA	
Nominal current 24 (V)	30 mA	
Protection class	IP 65, UL type 4, 4X, 13	
Weight	15 g	17 g

Buzzer-modules	DDD	DDP	DDZ	DLD	DLP	DLZ
Tone type	contin- ous	pulsing	cont./ pulsing	contin- ous	pulsing	cont./ pulsing
Tone frequency	3.500 Hz					
Sound pressure	100 dB			85 dB		
Leakage	3 mA					
Nominal current 24 (V)	53 mA					
Tone selection			externally switch- able			externally switch- able
Protection class	IP 65, UL type 4, 4X, 13					
Weight	20 g					



DMW

DMV

DMR

DSW

BSS

DFR

QUICK MOUNT SYSTEM „FOOT ADAPTER“

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



the foot adapter quick mount system also includes a **shipping cover**, which protects the lower part of the foot adapter from dust and environmental influences during transport or storage of the machine.

Function

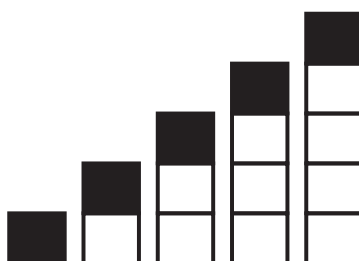
- the signal tower with pole mount base on aluminium tube with foot adapter for quick mounting (DFR) is electrically pre-wired
- the foot adapter lower part is mounted on the machine etc. and electrically connected
- the signal tower with foot adapter upper part is inserted into the lower part and firmly 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



Module combinations

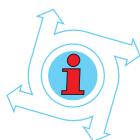


Can be used on position	1	2	3	4	5	Remark
LED-Light modules	OK	OK	OK	OK	OK	to be used in any position
Buzzer-modules (only continuous or pulsing tone)	OK	OK	OK	OK	OK	to be used only on top position
Buzzer-modules, (continuous and pulsing tone, externally switchable)	OK	OK	OK	OK	-	to be used only on top position



Order data

Type	Leuchten			Order No.			Nominal voltage (V)
DLL	LED-steady light	LED		705 00C 900P			
DLB	LED flashing light			706 00C 900P			
	Buzzer	Tone type	Sound pressure	Housing grey	Housing black	Housing silver	
DDD	Piezo buzzer	continuous tone	100 dB	707 100 900P	707 500 900P	707 800 900P	
DDP		pulsing tone		707 110 900P	707 510 900P	707 810 900P	
DDZ	Piezo buzzer	continuous/pulsing externally switchable		707 120 900P	707 520 900P	707 820 900P	
DLD	Piezo buzzer	continuous tone	85 dB	707 101 900P	707 501 900P	707 801 900P	
DLP		pulsing tone		707 111 900P	707 511 900P	707 811 900P	
DLZ	Piezo buzzer	continuous/pulsing externally switchable		707 121 900P	707 521 900P	707 821 900P	
	Basen			Housing grey	Housing black	Housing silver	
DMW	Base for horizontal mounting up to 3 modules			708 100 405M	708 500 405M	708 800 405M	24 V AC/DC
				708 100 310M	708 500 310M	708 800 310M	110/120 V AC
				708 100 313M	708 500 313M	708 800 313M	230/240 V AC
	Base for horizontal mounting up to 5 modules			708 101 405M	708 501 405M	708 801 405M	24 V AC/DC
				708 101 310M	708 501 405M	708 801 405M	110/120 V AC
				708 101 313M	708 501 313M	708 801 313M	230/240 V AC
DMV	Base for vertical mounting up to 3 modules			708 110 405M	708 510 405M	708 810 405M	24 V AC/DC
				708 110 310M	708 510 310M	708 810 310M	110/120 V AC
				708 110 313M	708 510 313M	708 810 313M	230/240 V AC
	Base for vertical mounting up to 5 modules			708 111 405M	708 511 405M	708 811 405M	24 V AC/DC
				708 111 310M	708 511 310M	708 811 310M	110/120 V AC
				708 111 313M	708 511 313M	708 811 313M	230/240 V AC
DSW	Pole mount base on aluminium tube for horizontal mounting with screws, up to 3 modules			708 12L 405M	708 52L 405M	708 82L 405M	24 V AC/DC
				708 12L 310M	708 52L 310M	708 82L 310M	110/120 V AC
				708 12L 313M	708 52L 313M	708 82L 313M	230/240 V AC
	Pole mount base on aluminium tube for horizontal mounting with screws, up to 5 modules			708 13L 405M	708 53L 405M	708 83L 405M	24 V AC/DC
				708 13L 310M	708 53L 310M	708 83L 310M	110/120 V AC
				708 13L 313M	708 53L 313M	708 83L 313M	230/240 V AC
BSS	Set for vertical mounting			200 400 900	200 800 900		
DMR	Pole mount base on aluminium tube with plastic foot, up to 3 modules			708 14L 405M	708 54L 405M	708 84L 405M	24 V AC/DC
				708 14L 310M	708 54L 310M	708 84L 310M	110/120 V AC
				708 14L 313M	708 54L 313M	708 84L 313M	230/240 V AC
	Rohrbasis auf Aluminiumrohr mit Kunststofffuß, bis 5 ModulplätzePole mount base on aluminium tube with plastic foot, up to 5 modules			708 15L 405M	708 55L 405M	708 85L 405M	24 V AC/DC
				708 15L 310M	708 55L 310M	708 85L 310M	110/120 V AC
				708 15L 313M	708 55L 313M	708 85L 313M	230/240 V AC
DFR	Pole mount base on aluminium tube with foot adapter for quick mounting, up to 3 modules			708 16L 405M	708 56L 405M	708 86L 405M	24 V AC/DC
				708 16L 310M	708 56L 310M	708 86L 310M	110/120 V AC
				708 16L 313M	708 56L 313M	708 86L 313M	230/240 V AC
	Pole mount base on aluminium tube with foot adapter for quick mounting, up to 5 modules			708 17L 405M	708 57L 405M	708 87L 405M	24 V AC/DC
				708 17L 310M	708 57L 310M	708 87L 310M	110/120 V AC
				708 17L 313M	708 57L 313M	708 87L 313M	230/240 V AC
	Cap - is automatically mounted						



The supply voltage 24 V AC/DC, 110/120 V AC or 230/240 V AC is determined by selecting the base in the desired Voltage. Any modules mounted on the base always operate with 24 V only.

Colour code for lens

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

C

Length code for tubes

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

L

Position letter code

E	5 th position from base
D	4 th position from base
C	3 rd position from base
B	2 nd position from base
A	1 st position from base
M	= Base mounted on modules

P



NOTE:

All base modules/signal towers are prewired as standard with 1 m cable and are supplied ready for use. Individual cable lengths are offered upon request.

Signal tower modulCOMPACT70 are only supplied ready assembled! Therefore one has to indicate the desired configuration by using the position letter code.

How to order Signal Tower modulCOMPACT70



Configuration 230 V AC	Position	Type	Order No. Catalogue	correct order no.
Buzzer pulsing tone	4	DDP	707 510 900P	707 510 900D
LED-flashing light clear	3	DLB	706 00C 900P	706 004 900C
LED-steady light red	2	DLL	705 00C 900P	705 002 900B
LED-steady light blue	1	DLL	705 00C 900P	705 005 900A
Pole mount base on aluminium tube with plastic foot, up to 5 modules, 100 mm long		DMR	708 55L 313M	708 552 313M



Configuration 230 V AC	Position	Type	Order No. Catalogue	correct order no.
LED-steady light red	2	DLL	705 00C 900P	705 002 900B
LED-steady light green	1	DLL	705 00C 900P	705 006 900A
Pole mount base on aluminium tube for horizontal mounting with screws up to 3 modules, 250 mm long + Set for vertical mounting (metal bracket + thread adapter/cable gland)		DSW	708 52L 313M	708 523 313M
		BSS	200 800 900	200 800 900



Configuration 24 V AC/DC	Position	Type	Order No. Catalogue	correct order no.
LED-steady light red	3	DLL	705 00C 900P	705 002 900C
LED-flashing light amber	2	DLB	706 00C 900P	706 001 900B
LED-steady light green	1	DLL	705 00C 900P	705 006 900A
Pole mount base on aluminium tube with foot adapter for quick mounting up to 3 modules, 100 mm long		DFR	708 56L 405M	708 562 405M





Features

- modularly designed flexible LED signal tower system
- signal tower is supplied ready for installation according to buyer's specifications
- available in voltages 24 V AC/DC, 110/120 V AC and 230/240 V AC
- 6 lens colours
- PLC fit (leakage/inrush current)
- UL-certified, protection class IP 65, UL 4, 4X, 13
- excellent price-performance ratio

optional model modulCOMPACT30:

As an option to the standard version (single modules are assembled) in projects with higher quantities with same configuration a single pcb model can be offered. This minimizes in larger projects the cost per signal tower and allows the most economic solution. This product option is offered with 8 LEDs per position (single modules 10 LEDs)

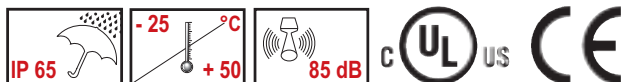


QUICK MOUNT SYSTEM „FOOT ADAPTER“ (Pat.No. 501053) (Base type CFR)



Quick mounting system "Foot adapter"

saves the customer the electrical connection and eases considerably mounting of signal tower for machine manufactures and their customers. Detailed description see page 25.



CONFIGURATION

LED-SIGNAL TOWER modulCOMPACT30



LIGHT MODULES	Light source	Type
LED-Steady light	LED	CLL
LED-Flashing light		CLB
PIEZO BUZZER	Sound pressure	
Continuous tone	85 dB	CDD
Pulsing tone		CDP
Continuous and Pulsing tone externally switchable		CDZ



BASES



on aluminium tube
with plastic foot
CMR



on aluminium tube
for horizontal mounting
with screw
CSW



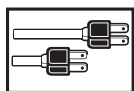
CSW + CSS



set for vertical
mounting
CSS (for CSW)



on aluminium tube with foot
adapter for quick mounting
CFR



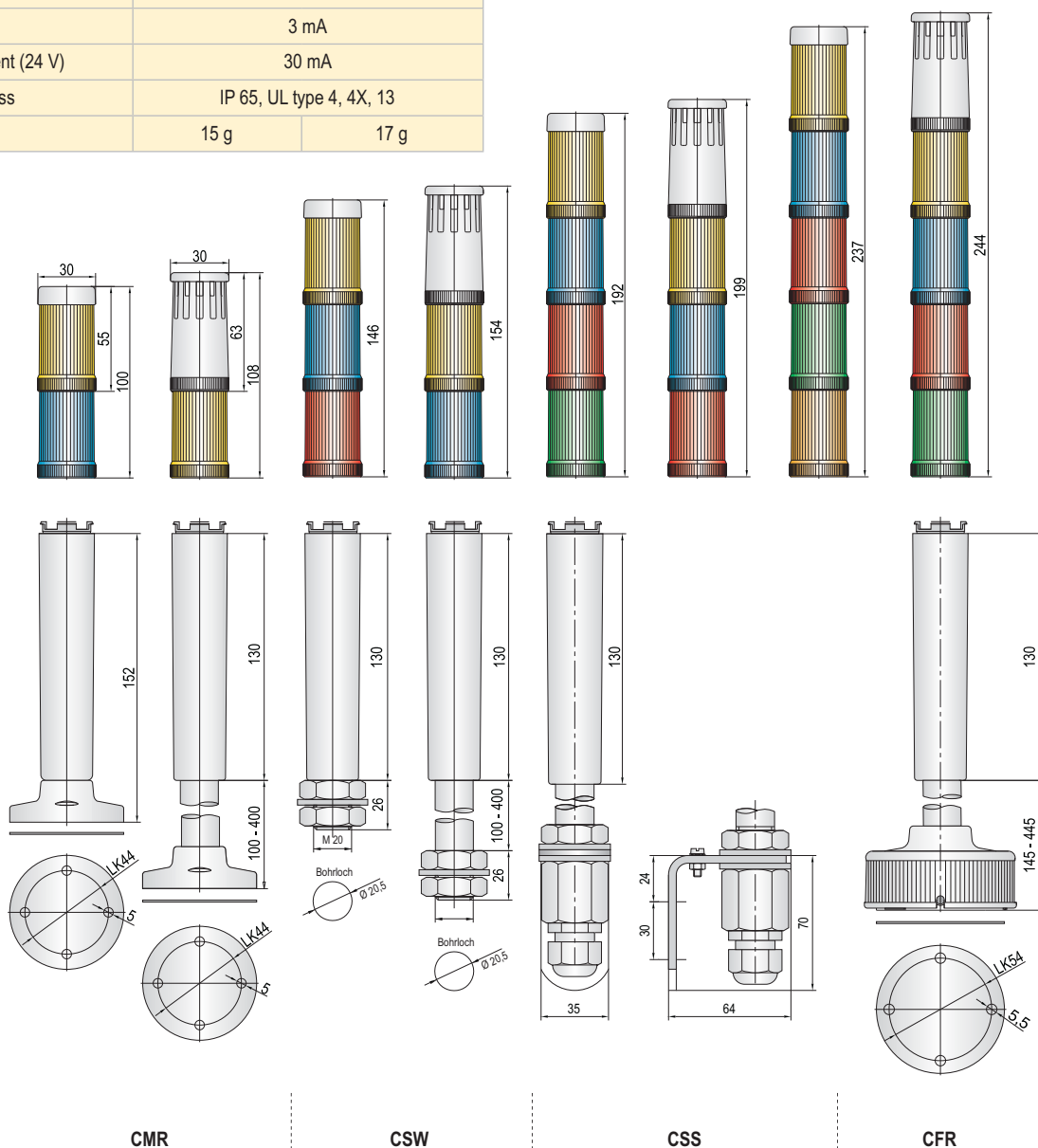
Technical data

for all modulCOMPACT30 modules/products:

Housing material	polycarbonate, grey or black
Lens material	polycarbonate
Lens colours	amber, red, clear, blue, green, yellow
Terminals	prewired, 1 m cable length
Temperature range	-25 °C to +50 °C

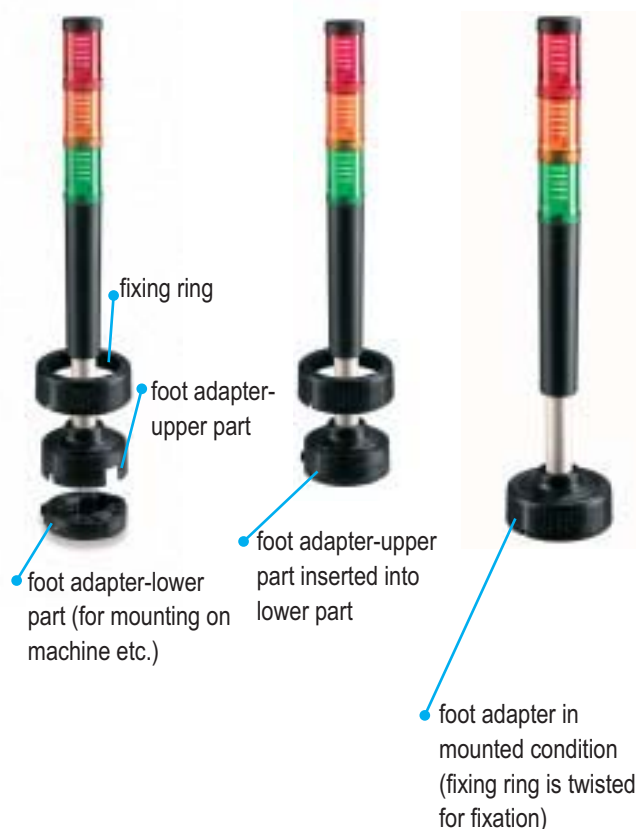
Light modules	CLL	CLB
Light type	LED-steady light	LED-flashing light
Flashing frequency		2 Hz
Light emission		360°
Leakage		3 mA
Nominal current (24 V)		30 mA
Protection class		IP 65, UL type 4, 4X, 13
Weight	15 g	17 g

Buzzer modules	CDD	CDP	CDZ
Tone type	continuous t.	pulsing tone	cont.-/pulsing t.
Tone frequency	3.500 Hz		
Sound pressure	85 dB		
Leakage	3 mA		
Nominal current (24 V)	40 mA		
Tone selection			extern. switchable
Protection class	IP 65, UL type 4, 4X, 13		
Weight	20 g		



QUICK MOUNT SYSTEM „FOOT ADAPTER“

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



the foot adapter quick mount system also includes a **shipping cover**, which protects the lower part of the foot adapter from dust and environmental influences during transport or storage of the machine.

Function

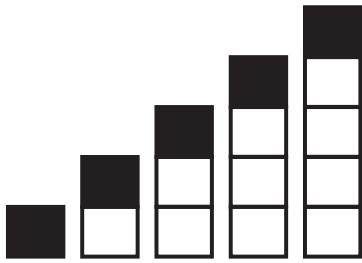
- the signal tower with pole mount base on aluminium tube with foot adapter for quick mounting (CFR) is electrically pre-wired
- the foot adapter lower part is mounted on the machine etc. and electrically connected
- the signal tower with foot adapter upper part is inserted into the lower part and firmly 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



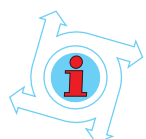
Module combinations

						
Can be used on position	1	2	3	4	5	Remark
LED-Light modules	OK	OK	OK	OK	OK	to be used in any position
Buzzer-modules (only continuous or pulsing tone)	OK	OK	OK	OK	OK	to be used only on top position
Buzzer-modules, (continuous and pulsing tone, externally switchable)	OK	OK	OK	OK	-	to be used only on top position



Order data

Type	Light modules	Light source		Order No.			
CLL	LED-Steady light	LED		701 00C 900P			
CLB	LED-Flashing light			702 00C 900P			
	Piezosummer-Module	Tone options		Housing grey	Housing black	Housing silver	required positions
		Tone type	Volume				
CDD	Piezo Buzzer	continuous tone	85 dB	703 100 900P	703 500 900P	703 800 900P	1
CDP	Piezo Buzzer	pulsing tone		703 110 900P	703 510 900P	703 810 900P	1
CDZ	Piezo Buzzer	contin./pulsing		703 120 900P	703 520 900P	703 820 900P	2
Type	Bases			Housing grey	Housing black	Housing silver	Nominal voltage (V)
CSW	Pole mount base on aluminium tube for horizontal mounting with screw up to 3 modules			700 11L 405M	700 51L 405M	700 81L 405M	24 V AC/DC
				700 11L 310M	700 51L 310M	700 81L 310M	110/120 V AC
				700 11L 313M	700 51L 313M	700 81L 313M	230/240 V AC
	Pole mount base on aluminium tube for horizontal mounting with screw up to 5 modules			700 12L 405M	700 52L 310M	700 82L 310M	24 V AC/DC
				700 12L 310M	700 52L 310M	700 82L 310M	110/120 V AC
				700 12L 313M	700 52L 313M	700 82L 313M	230/240 V AC
CSS	Set for vertical mounting (zu CSW)			700 130 900	700 530 900		
CMR	Pole mount base on aluminium tube with plastic foot up to 3 modules			700 14L 405M	700 54L 405M	700 84L 405M	24 V AC/DC
				700 14L 310M	700 54L 310M	700 84L 310M	110/120 V AC
				700 14L 313M	700 54L 313M	700 84L 313M	230/240 V AC
	Pole mount base on aluminium tube with plastic foot up to 5 modules			700 15L 405M	700 55L 405M	700 85L 405M	24 V AC/DC
				700 15L 310M	700 55L 310M	700 85L 310M	110/120 V AC
				700 15L 313M	700 55L 313M	700 85L 313M	230/240 V AC
CFR	Pole mount base on aluminium tube with foot adapter for quick mounting up to 3 modules			700 16L 405M	700 56L 405M	700 86L 405M	24 V AC/DC
				700 16L 310M	700 56L 310M	700 86L 310M	110/120 V AC
				700 16L 313M	700 56L 313M	700 86L 313M	230/240 V AC
	Pole mount base on aluminium tube with foot adapter for quick mounting up to 5 modules			700 17L 405M	700 57L 405M	700 87L 405M	24 V AC/DC
				700 17L 310M	700 57L 310M	700 87L 310M	110/120 V AC
				700 17L 313M	700 57L 313M	700 87L 313M	230/240 V AC
	Cap - is automatically mounted						



The supply voltage 24 V AC/DC, 110/120 V AC or 230/240 V AC is determined by selecting the base in the desired Voltage. Any modules mounted on the base always operate with 24 V only.

Colour code for lens

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

Length code for tubes

0	0 mm
2	100 mm
3	250 mm
4	400 mm

Position letter code

E	5 th position from base
D	4 th position from base
C	3 rd position from base
B	2 nd position from base
A	1 st position from base
M	= Base mounted on modules

NOTE:

All base modules/signal towers are prewired as standard with 1m cable and are supplied ready for use. Individual cable lengths are offered upon request.

Signal tower modulCOMPACT30 are only supplied ready assembled! Therefore one has to indicate the desired configuration by using the position letter code.

How to order Signal tower modulCOMPACT30



Configuration 230 V AC	Position	Type	Order No. Catalogue	correct order No.
Buzzer pulsing tone	5	CDP	703 510 900P	703 510 900E
LED-flashing light red	4	CLB	702 00C 900P	702 002 900D
LED-steady light clear	3	CLL	701 00C 900P	701 004 900C
LED-steady light blue	2	CLL	701 00C 900P	701 005 900B
LED-flashing light amber	1	CLB	702 00C 900P	702 001 900A
Pole mount base on aluminium tube with plastic foot, up to 5 modules, 100 mm long		CMR	700 55L 313M	700 552 313M



Configuration 24 V AC/DC	Position	Type	Order No. Catalogue	correct order No.
LED-steady light red	2	CLL	701 00C 900P	701 002 900B
LED-steady light green	1	CLL	701 00C 900P	701 006 900A
Pole mount base on aluminium tube for horizontal mounting with screw, up to 3 modules 250 mm long & Set for vertical mounting (metal bracket + thread adapter/cable gland)		CSW	700 11L 405M	700 113 405M
		CSS	700 130 900	700 130 900



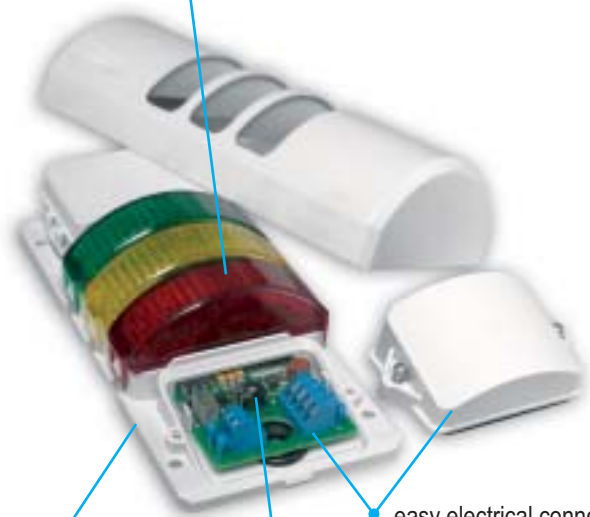
slim design, only 45 mm wide for optimal integration/
combination of signal tower unit in machine/panel
building or other (building) applications



IP 65 – for use in damp and dusty
environmental conditions, also
outdoor



modules always work
with 24 V voltage



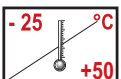
supply voltage is
chosen with the
respective base

easy electrical connection
(terminals, removable cover)

volume individually adjustable
from ~70 – 90 dB

Features

- ▶ visual-audible LED-signal tower in half dome design
- ▶ for universal industrial, building and other applications
- ▶ any colour combination and housing size (2 – 5 positions) available
- ▶ 6 lens colours, 2 housing colours (grey, chrome)
- ▶ LED-steady light or LED-flashing light for each position selectable
- ▶ high protection class IP 65 – suitable for outdoor and indoor
- ▶ for horizontal and vertical mounting
- ▶ particular lens optics with reflective coating
 - optimal signalling and visibility from each viewing angle (180°)
 - „moving“ bright LED-light
- ▶ optional piezo buzzer in upper housing area available
 - tone types continuous and pulsing
 - volume individually adjustable ~70 - 90 dB (A) in 1 m
- ▶ SPS-fit (leakage, inrush current)
- ▶ available in nominal voltages 24 V AC/DC, 110/120 V AC and 230/240 V AC
- ▶ UL-certified – UL 4, 4X, 13



CONFIGURATION

SIGNAL TOWER halfDOME90



LIGHT MODULES	Light source	Type
LED-steady light	LED	HDL
LED-flashing light		HDB
PIEZO BUZZER	Sound pressure	Type
Continuous and pulsing tone	~70 - 90 dB infinitely adjustable	HDZ
HOUSING	Housing colour	Type
Housing with 2 lights	grey chrome	HD2
Housing with 3 lights		HD3
Housing with 4 lights		HD4
Housing with 5 lights		HD5

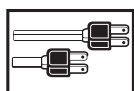


halfDOME90



Optimal Signalling and Visibility from each viewing angle (180°)

► moving bright LED-light



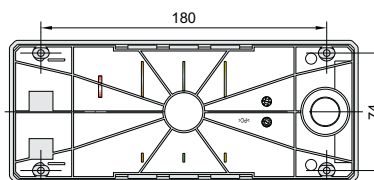
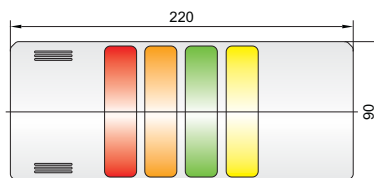
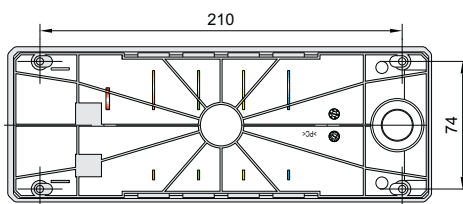
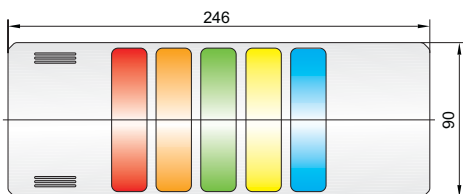
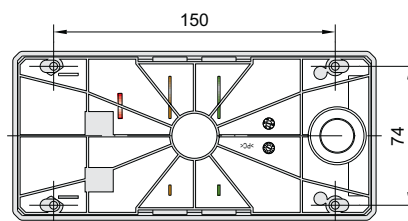
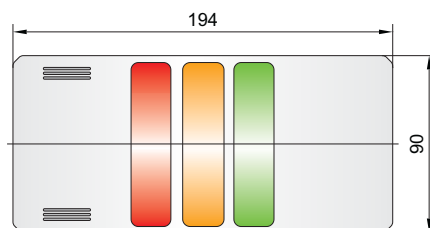
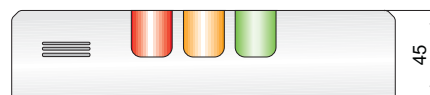
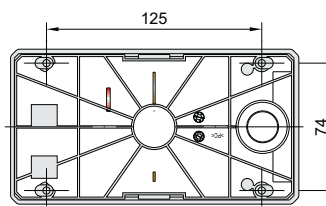
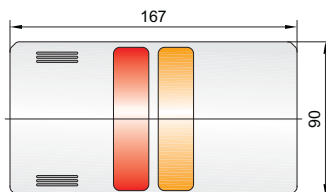
Technical data

for all HalfDOME90 modules/products:

Housing material	polycarbonate
Housing colours	grey or chrome
Lens material	polycarbonate
Lens colours	amber, red, clear, blue, green, yellow
Temperature range	-25 °C to +50 °C

Light modules	HDL	HDB
Type of light	LED-steady light	LED-flashing light
Flashing frequency		2 Hz
Light emission		180°
Leakage		3 mA
Nominal current (24 V)		43 mA
Protection class		IP 65, NEMA 4, 4X, 13
Weight		2-lights: 273 g
		3-lights: 319 g
		4-lights: 376 g
		5-lights: 419 g

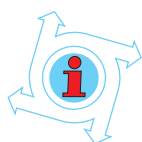
Buzzermodule	HDZ
Tone type	continuos/pulsing
Tone selection	DIP-Switch
Tone frequency	~ 2500 Hz
Sound pressure	~ 70 - 90 dB
Nominal current	65 mA





Order data

Type	LIGHTS	Order No.		
HDL	LED steady light (mounted)	745 00C 900P		
HDB	LED flashing light (mounted)	745 01C 900P		
	BUZZER			
HDZ	Buzzer continuous/pulsing tone	745 020 900		
	HOUSING	grey	chrome	Nominal voltage (V)
HD2	Housing for 2 lights	745 102 405	745 502 405	24 V AC/DC
HD3	Housing for 3 lights	745 103 405	745 503 405	24 V AC/DC
HD4	Housing for 4 lights	745 104 405	745 504 405	24 V AC/DC
HD5	Housing for 5 lights	745 105 405	745 505 405	24 V AC/DC
HD2	Housing for 2 lights	745 102 310	745 502 310	110/120 V AC
HD3	Housing for 3 lights	745 103 310	745 503 310	110/120 V AC
HD4	Housing for 4 lights	745 104 310	745 504 310	110/120 V AC
HD5	Housing for 5 lights	745 105 310	745 505 310	110/120 V AC
HD2	Housing for 2 lights	745 102 313	745 502 313	230/240 V AC
HD3	Housing for 3 lights	745 103 313	745 503 313	230/240 V AC
HD4	Housing for 4 lights	745 104 313	745 504 313	230/240 V AC
HD5	Housing for 5 lights	745 105 313	745 505 313	230/240 V AC



NOTE:

The supply voltage 24 V AC/DC, 110/120 V DC or 230/240 V AC is determined by selecting the housing in the desired voltage. The built-in light and sound modules always operate with 24 V only.

Colour code for lens

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

C

Position letter code

E	5 th position from base
D	4 th position from base
C	3 rd position from base
B	2 nd position from base
A	1 st position from base

P

How to order HALF DOME 90

Configuration 230 V AC	position	type	order no. in catalogue	correct order no.
LED steady light red	3	HDL	745 00C 900P	745 002 900C
LED flashing light amber	2	HDB	745 01C 900P	745 011 900B
LED steady light green	1	HDL	745 00C 900P	745 006 900A
buzzer continuous/pulsing		HDZ	745 020 900	745 020 900
grey housing 3 positions		HD3	745 103 313	745 103 313

Configuration 230/240 V AC	position	type	order no. in catalogue	correct order no.
LED steady light clear	5	HDL	745 00C 900P	745 004 900E
LED flashing light blue	4	HDB	745 01C 900P	745 015 900D
LED steady light red	3	HDL	745 00C 900P	745 002 900C
LED flashing light yellow	2	HDB	745 01C 900P	745 017 900B
LED steady light green	1	HDL	745 00C 900P	745 006 900A
chrome housing 5 positions		HD5	745 505 405	745 505 405

Handwriting practice lines consisting of 30 horizontal dotted lines.

HEADQUARTERS

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