

- ▶ 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

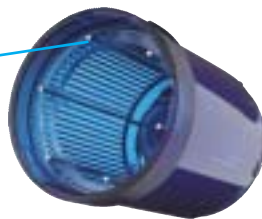


- ▶ safety screws for additional safety of modules against unauthorized opening

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

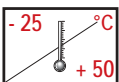
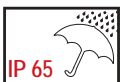
modul contacts



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 57.



CONFIGURATION

SIGNAL TOWER moduSIGNAL50



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



horizontal
VMW

vertical
VMV

on aluminium
tube
with plastic foot
VMR

on stainless steel
tube with zinc
die-cast foot
VSR

on aluminium
tube for horizontal
mounting with
screw
VSW

VSW + BSS

on aluminium tube
with foot adapter
for quick mounting
VFR



Order data

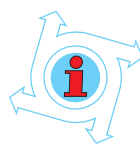


Type	Light modules	Light options		Order No.			Nominal voltage (V)
		Glühlampe	LED-Lampe				
VLL	Steady light	GL	LLL, LLB	750 00C 900			bis 250 V AC/DC
VLB	Flashing light	GL	LLL	760 00C 405			12-24 V AC/DC
				760 00C 310			110/120 V AC
				760 00C 313			230/240 V AC
VLF	Strobe light	Xenonröhre		770 00C 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	<input type="checkbox"/> continuous	<input type="checkbox"/> 103 dB	781 100 404	781 500 404	781 800 404	12 V AC/DC
		<input type="checkbox"/> pulsing	<input type="checkbox"/> 88 dB	781 100 405	781 500 405	781 800 405	24 V AC/DC
				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	<input type="checkbox"/> 103 dB	782 100 404	782 500 404	782 800 404	12 V AC/DC
			<input type="checkbox"/> 88 dB	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	Weight (g)
VMW	Base for horizontal mounting			790 120 900	790 520 900	790 820 900	45
VMV	Base for vertical mounting			790 140 900	790 540 900	790 840 900	85
VMR	Pole mount base on aluminium tube with plastic foot			790 14L 900	790 54L 900	790 84L 900	55-245
VSR	Pole mount base on stain. steel tube with zinc die-cast foot, powder coated			790 15L 900	790 55L 900	790 85L 900	205-955
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

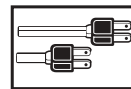
Type	Description	Order-Nr.
VAZ	AS-Interface module for 31 slaves	780 500 500
	AS-Interf. module for 62 slaves - up to 3 signal tower modules	780 500 600
	AS-Interf. module for 62 slaves - up to 4 signal tower modules	780 500 700

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		T
1	M 20	5 PG 16
2	NPT 1/2"	

BDW



BDM

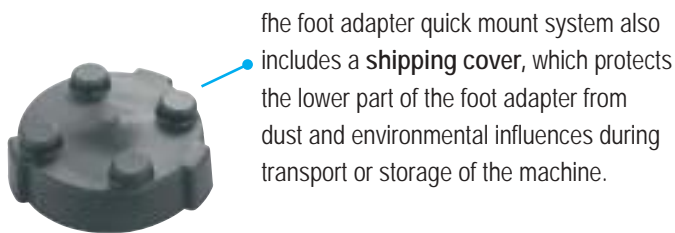
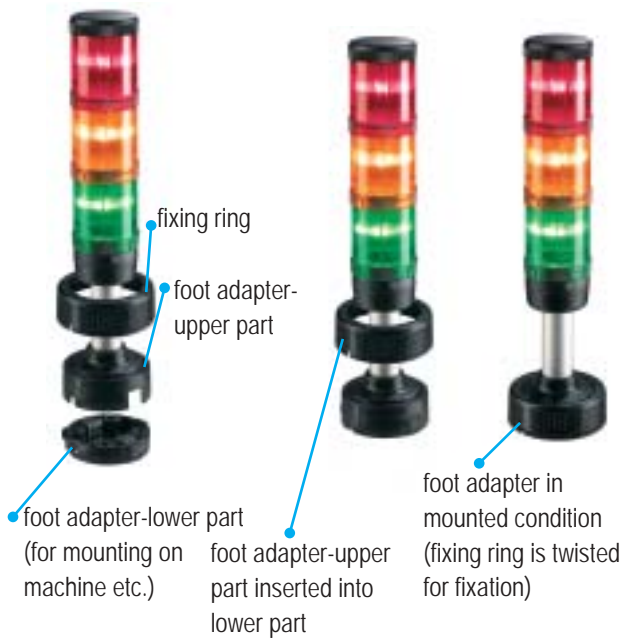


BDV



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 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 modul SIGNAL50

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

