

dFT3 Explosion-proof analogue telephone

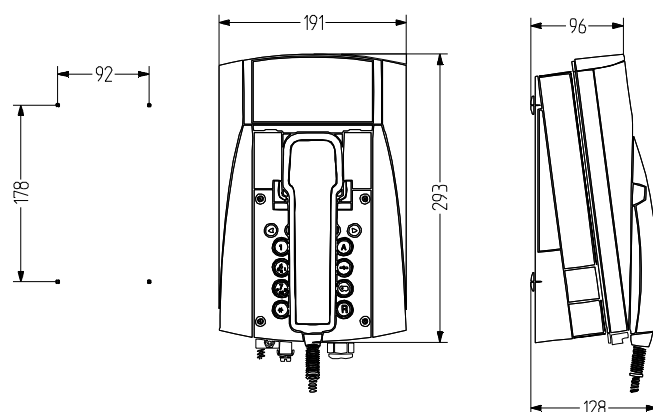
- Explosion-proof analogue telephone
- Certified for gas and dust hazardous areas – zone 2, 22
- Degree of protection IP 65
- Impact-resistant polycarbonate housing
- For areas with temporary explosive atmospheres
- Available with armoured or spiral cord as an option
- Models with or without display
- Housing colours yellow, red, grey and black
- Can be used as a desk-mounted or wall-mounted telephone

II 3 G Ex nAnL IIC T5

II 3 D Ex tD A22 IP65 T80 °C

-20 °C ≤ Ta ≤ +55 °C

Zone 2, 22



TECHNICAL DATA

| | |
|------------------------------------|--|
| Dialling method | MFV nach CCITTQ 23 |
| Tone ringing volume | 95 dB |
| Bell ringing frequency | programmable: 16–68 Hz |
| Pulse/pause ratio | programmable: 1.5:1 60/40 ms 2:1 66.7/33.3 ms |
| Flash time | ~ 80 ms set as default 1 ms–999 ms can be programmed |
| Net access, acoustics | TBR 21, TBR 38 |
| Incoming telephone line | TCP/La, TCP/Lb |
| Second bell | w1, w |
| Electrical safety | EN 60950 |
| Transportation/storage temperature | -25 °C / +70 °C |
| Display temperature | -10 °C / +55 °C |
| Housing | Polycarbonate black, black/red, black/grey or black/yellow |

| | |
|-----------------------|---|
| Type of mounting | vertical wall mounting or Table mounting |
| Cable entry | 1× M20 × 1.5 cable gland, 1× M20 × 1.5 blind plug, 2× M12 × 1.5 blind plugs |
| Connection technology | single wire or multiple wires up to 2.5 mm ² |
| Operating temperature | -20 °C / +55 °C |
| Degree of protection | IP65 |
| Approval | BVS 09 ATEX E061 |
| Technology | analogue |
| Supply voltage | 24–66 V DC |
| Weight | 2,3 kg |
| Display | available with and without |
| Mouthpiece | Electret microphone |
| Receiver | Dynamic receiver with magnetic field generator |
| Stabiliser bracket | as accessory |



dFT3

ORDER DATA

| Cord | Display | Housing colour | Order number |
|---------------|-----------------|----------------|--------------|
| Coiled cord | with display | black/yellow | 410 400 100 |
| | | black | 410 400 000 |
| | | black/grey | 410 400 300 |
| | | black/red | 410 400 200 |
| | without display | black/yellow | 410 410 100 |
| | | black | 410 410 000 |
| | | black/grey | 410 410 300 |
| | | black/red | 410 410 200 |
| Armoured cord | with display | black/yellow | 410 420 100 |
| | | black | 410 420 000 |
| | | black/grey | 410 420 300 |
| | | black/red | 410 420 200 |
| | without display | black/yellow | 410 430 100 |
| | | black | 410 430 000 |
| | | black/grey | 410 430 300 |
| | | black/red | 410 430 200 |



AS1



VS1



mTCR



TH1



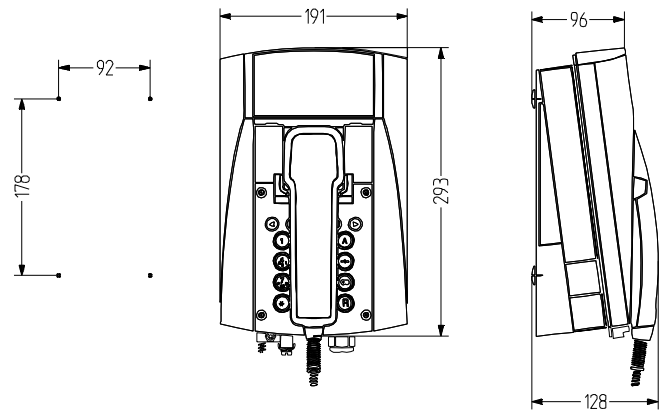
TH2

ACCESSORIES

| Type | Type of accessory | Colour | Housing material | Weight | Order number |
|------|---|------------------------|--|---------|--------------|
| AS1 | Explosion-proof audible telephone call signalling sounder | | | 500 g | 410 100 004 |
| VS1 | Explosion-proof visual-audible signalling sounder | black (RAL 9005)orange | | 1,42 kg | 410 101 005 |
| | | black (RAL 9005)red | | 1,42 kg | 410 102 005 |
| | | black (RAL 9005)clear | | 1,42 kg | 410 104 005 |
| | | black (RAL 9005)blue | | 1,42 kg | 410 105 005 |
| | | black (RAL 9005)green | | 1,42 kg | 410 106 005 |
| mTCR | Explosion-proof telephone connecting relay | | | 1,1 kg | 410 100 100 |
| TH1 | Telephone sound protection hood | yellow (RAL 1023) | PVC - plastic (UV and weather-resistant) | 30 kg | 410 100 012 |
| | | | glass-fibre-reinforced plastic (GFRP) | 40 kg | 410 100 008 |
| | | | Console (sheet steel, powder-coated) | 17 kg | 410 100 011 |
| | | | Metal | 35 kg | 410 100 006 |
| | | red (RAL 3020) | PVC - plastic (UV and weather-resistant) | 30 kg | 410 100 014 |
| | | | glass-fibre-reinforced plastic (GFRP) | 40 kg | 410 100 015 |
| | | | Metal | 35 kg | 410 100 009 |
| | | | PVC - plastic (UV and weather-resistant) | 30 kg | 410 100 013 |
| | | orange (RAL 2000) | glass-fibre-reinforced plastic (GFRP) | 40 kg | 410 100 007 |
| | | | PVC - plastic (UV and weather-resistant) | 30 kg | 410 100 013 |
| | | | glass-fibre-reinforced plastic (GFRP) | 40 kg | 410 100 007 |
| | | | Stainless steel | 40 kg | 410 100 010 |
| TH2 | Telephone sound protection hood | yellow | Stainless steel | 3,5 g | 410 100 020 |
| | | | PVC - plastic (UV and weather-resistant) | 3,5 g | 410 100 030 |
| STB | Stabiliser bracket | | | | 410 400 900 |

dFT3-IP Explosion-proof VoIP telephone

- Certified for gas and dust hazardous areas – zone 2, 22
- Degree of protection IP 65
- Impact-resistant polycarbonate housing
- Housing colours yellow, red, grey and black
- Intelligent and user-friendly menu structure
- Standard H.323, SIP, TSIP, SIPS protocols
- Power over Ethernet power supply
- Available with armoured or spiral cord as an option
- Illuminated keypad/pixel-based LCD display
- Can be used as a desk-mounted or wall-mounted telephone



II 3G Ex nA nL II C T5

II 3D Ex tD A22 IP65 T80°C

-20°C bis +55°C

Zone 2, 22



dFT3-IP

TECHNICAL DATA

| | |
|-----------------------|--|
| Tone ringing volume | 95 dB |
| Connection | 10/100 BASE-T Ethernet LAN |
| Echo compensation | G.168 |
| Housing | Polycarbonate black, black/red, black/grey or black/yellow |
| Connection technology | to a single 10/100 BASE-T Ethernet LAN, RJ45 |
| Operating temperature | -20 °C / +55 °C |
| Degree of protection | IP65 |
| Current supply | Power over Ethernet as per IEEE 802.3af |
| Technology | VOIP |
| Keypad | illuminated keypad |
| Protocol | H.323, SIP, TSIP or SIPS |
| Weight | 2,4 kg |
| Display | 128 × 64 Pixel |
| General | H.323 version 4 incl. H.225, H.235, H.245 and RAS gatekeeper routed signalling, H.450 Session Initiation Protocol (SIP), RTP, SRTP |
| RTCP | Real time control protocol - first level of 'quality of service' |
| RAS protocol | Support for external gatekeeper |
| DTMF | H.245 'alphanumeric' or 'single type' |
| VoIP features | H.245 fast connect en-bloc dialling overlapped sending |
| Encryption | Encrypted password authentication as per H.235 |
| Quality of service | Prioritisation of IP packets over TOS and Diffserv, VLAN priority as per IEEE 802.1p/802.1p |
| Speech codes | G.711 A-law/ μ -law (64 kbps), G.723.1 (5,3 kbps), G.729A (16 kbps) |
| Access | using web browser with HTML Password-protected with secure authentication |

| | |
|----------------------------------|---|
| Connections for trouble-shooting | Log and trace files, interface status indicators and ping connection test for internet protocol sending of SNMP traps |
| Update | Saving and reading of configuration, boot code and firmware update by means of HTML upload and automatic update using update server |
| DSL Zugang | PPPoE protocol |
| VPN | Tunnelling with PPTP encryption with MPPE |
| NAT | Network address translation - for translating official IP addresses into unofficial addresses and vice versa |
| DHCP | Dynamic host configuration protocol - IP interface settings |
| ICMP | Internet control message protocol - for ping tests |
| Ring tone generation | Automatic generation of ring tone as per European and US standards |
| Call switching | Call transfer, in all common variants: with/without enquiry, before/after answering, etc. |
| Call forwarding | Call diversion/redirection |
| Hold | Call hold/retrieve |
| Call waiting | Call waiting, including signalling of second call information |
| Message | Display on telephone indicating that there is a message |
| Name Display | for signalling the name which is to be displayed |
| Conference | with 3 subscribers, including external subscribers |
| Telephone number identification | displays calling numbers |
| Multiple entries | maximum of 6 entries |
| Directory | local, integration or external database |
| Time | extremely accurate time information thanks to access to time server |



dFT3-IP

ORDER DATA

| Cord | Housing colour | Order number |
|---------------|----------------|--------------|
| Coiled cord | black/red | 410 450 200 |
| | black | 410 450 000 |
| | black/grey | 410 450 300 |
| | black/yellow | 410 450 100 |
| Armoured cord | black/red | 410 460 200 |
| | black | 410 460 000 |
| | black/grey | 410 460 300 |
| | black/yellow | 410 460 100 |



TH1



TH2

ACCESSORIES

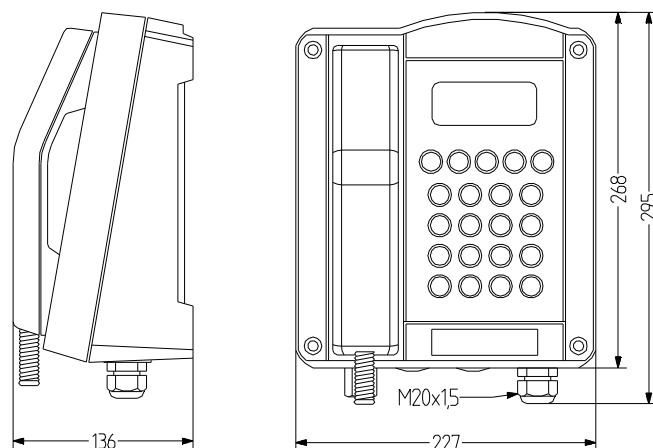
| Type | Type of accessory | Colour | Housing material | Weight | Order number | | |
|------|---------------------------------|-------------------|--|--------|--|-------|-------------|
| TH1 | Telephone sound protection hood | yellow (RAL 1023) | PVC - plastic (UV and weather-resistant) | 30 kg | 410 100 012 | | |
| | | | glass-fibre-reinforced plastic (GFRP) | 40 kg | 410 100 008 | | |
| | | | Console (sheet steel, powder-coated) | 17 kg | 410 100 011 | | |
| | | | Metal | 35 kg | 410 100 006 | | |
| | | orange (RAL 2000) | PVC - plastic (UV and weather-resistant) | 30 kg | 410 100 013 | | |
| | | | glass-fibre-reinforced plastic (GFRP) | 40 kg | 410 100 007 | | |
| | | red (RAL 3020) | PVC - plastic (UV and weather-resistant) | 30 kg | 410 100 014 | | |
| | | | glass-fibre-reinforced plastic (GFRP) | 40 kg | 410 100 015 | | |
| | | | Metal | 35 kg | 410 100 009 | | |
| | | | Stainless steel | 40 kg | 410 100 010 | | |
| | | TH2 | Telephone sound protection hood | yellow | PVC - plastic (UV and weather-resistant) | 3,5 g | 410 100 030 |
| | | | | | Stainless steel | 3,5 g | 410 100 020 |
| STB | Stabiliser bracket | | | | 410 400 900 | | |

dST Explosion-proof analogue telephone

- Certified for gas and dust hazardous areas – zone 1, 2, 21, 22
- Degree of protection IP 66 & impact resistance IK09
- Very robust weather-proof housing with steel-armoured handset cord to withstand high tensile forces
- For demanding industrial, onshore and offshore applications
- V4A steel keypad, designed for use with gloves
- Easily readable alphanumerical display
- Freely programmable, housing colours black and red
- Version without keypad/display available as emergency telephone



II 2 G Ex e mb [ib] IIC T6/T5 Gb
 II 2 D tb [ib] IIIC T80°C/T100 °C Db
 -25 °C ≤ Ta ≤ +40 °C/+60 °C
 Zone 1, 2, 21, 22



TECHNICAL DATA

| | |
|---|--|
| Dialling method | PD DTMF operation can be selected from menu DTMF operation as per CCITT recommendation Q.23 PD operation with pulse/pause ratio of 1.5:1 or 2:1, which can be selected via menu navigation |
| Tone ringing volume | 90 dB At 1 m |
| Transportation/storage temperature | -25°C/+70°C |
| Housing | glass-fibre-reinforced polyester red or black |
| Cable entry | 1× M20 × 1.5, 2× blind plugs M20 × 1.5 |
| Connection technology | up to 4 mm ² rigid, up to 2.5 mm ² flexible |
| Operating temperature | -25°C bis +60°C (T5) -25°C bis +40°C (T6) |
| Degree of protection | IP66 |
| Impact resistance | IK09 |
| Approval | DMT 03 ATEX E034 |
| Technology | analogue |
| Keypad | Metal keypad with ice protection 21 keys with ABC lettering for name entries |

| | |
|-------------------------------------|--|
| Noise suppression | > 3 dB thanks to integrated mouthpiece horn |
| Supply voltage | 24 V DC-66 V DC |
| Supply current | 0,015 A DC-0,10 A DC |
| Ringling alternating current | 24 V AC-90 V AC (at 21-54 Hz ringing frequency) 30 V AC-90 V AC (at 16.6-54 Hz ringing frequency) |
| Tone ringing impedance | > 6.0 KΩ at 25 Hz and 24-90 V AC > 4.0 KΩ at 50 Hz and 24-90 V AC |
| Enquiry key | Flash function can be adjusted from 40 ms-399 ms |
| W conductor | Option to connect external call signalling sounder |
| Weight | 5,5 kg |
| Display | 2-line alphanumerical display with pictograms, visible area 78 × 26 mm |
| Mouthpiece | Electret microphone |
| Receiver | dynamic receiver with leakage field spool for inductively coupling hearing aids |
| Stabiliser bracket | integrated, adjustable stabiliser protection |
| Handset cord | steel-reinforced armoured cord made of V4A |



dST

ORDER DATA

| Type | Keypad | Display | Housing colour | |
|------|----------------|-----------------|----------------|-------------|
| | | | black | red |
| dST1 | with keypad | with display | 410 010 000 | 410 010 100 |
| dST2 | without keypad | without display | 410 020 000 | 410 020 100 |



AS1



VS1



EP1



HS1



mTCR



TH1



TH2

ACCESSORIES

| Type | Type of accessory | Colour | Housing material | Weight | Order number | | |
|------|---|------------------------|--|--|--|-------------|-------------|
| AS1 | Explosion-proof audible telephone call signalling sounder | | | 500 g | 410 100 004 | | |
| VS1 | Explosion-proof visual-audible signalling sounder | black (RAL 9005)orange | | 1,42 kg | 410 101 005 | | |
| | | black (RAL 9005)red | | 1,42 kg | 410 102 005 | | |
| | | black (RAL 9005)clear | | 1,42 kg | 410 104 005 | | |
| | | black (RAL 9005)blue | | 1,42 kg | 410 105 005 | | |
| | | black (RAL 9005)green | | 1,42 kg | 410 106 005 | | |
| EP1 | Explosion-proof additional earpiece set | | | 200 g | 410 100 002 | | |
| HS1 | Headset kit | | | 1,33 kg | 410 100 001 | | |
| mTCR | Explosion-proof telephone connecting relay | | | 1,1 kg | 410 100 100 | | |
| TH1 | Telephone sound protection hood | yellow (RAL 1023) | PVC – plastic (UV and weather-resistant) | 30 kg | 410 100 012 | | |
| | | | glass-fibre-reinforced plastic (GFRP) | 40 kg | 410 100 008 | | |
| | | | Console (sheet steel, powder-coated) | 17 kg | 410 100 011 | | |
| | | | Metal | 35 kg | 410 100 006 | | |
| | | | red (RAL 3020) | PVC – plastic (UV and weather-resistant) | 30 kg | 410 100 014 | |
| | | | | glass-fibre-reinforced plastic (GFRP) | 40 kg | 410 100 015 | |
| | | Metal | | 35 kg | 410 100 009 | | |
| | | orange (RAL 2000) | | PVC – plastic (UV and weather-resistant) | 30 kg | 410 100 013 | |
| | | | | glass-fibre-reinforced plastic (GFRP) | 40 kg | 410 100 007 | |
| | | Stainless steel | | Stainless steel | 40 kg | 410 100 010 | |
| | | TH2 | Telephone sound protection hood | yellow | Stainless steel | 3,5 g | 410 100 020 |
| | | | | | PVC – plastic (UV and weather-resistant) | 3,5 g | 410 100 030 |



mTCR Explosion-proof telephone connecting relay

- Explosion-proof telephone connecting relay
- Potential-free contacts for individual connection of up to 2 visual or audible signalling devices
- Call break bypass can be individually adjusted
- High degree of protection IP 66
- Housing made of electrostatically conductive glass-fibre-reinforced polyester

II 2 G Ex e ib mb IIC T4 Gb

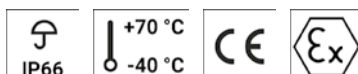
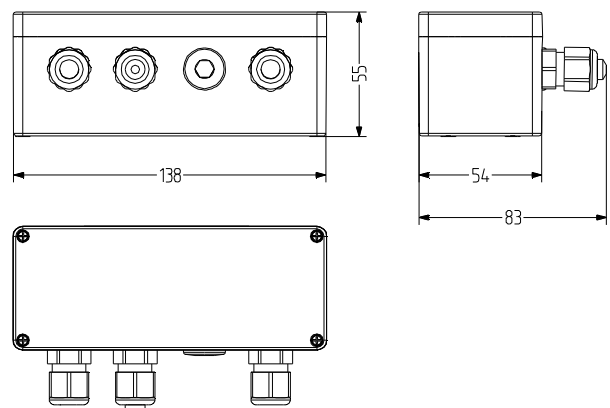
II 2 D Ex tb IIIC T135 °C Db

-40 °C ≤ T_a ≤ +70 °C



TECHNICAL DATA

| | |
|-----------------------|--|
| Connection | Call voltage of analogue telephone network, AC 30 V-100 V (TNV-3) |
| Input impedance | ≥ 8.0 KΩ at 20-68 Hz and 30-100 V A |
| Housing | glass-fibre-reinforced polyester black |
| Type of mounting | any |
| Operating temperature | -40 °C / +70 °C |
| Degree of protection | IP66 |
| Weight | 1,1 kg |



mTCR

ORDER DATA

| Description | Order number |
|--|--------------|
| Explosion-proof telephone connecting relay | 410 100 100 |



AS1 Explosion-proof audible telephone call signalling sounder

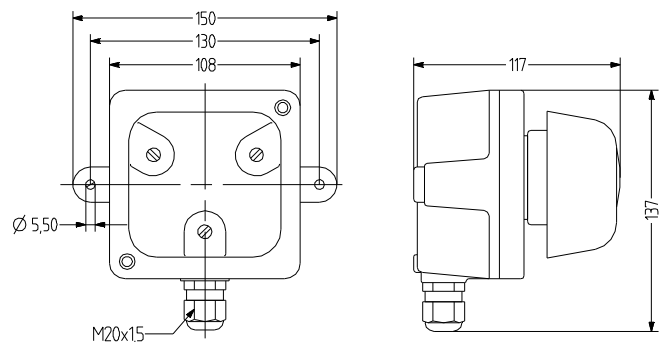
- Several tones/intermittent tone frequencies can be selected
- Die-cast aluminium housing
- High degree of protection IP 66
- Certified for zone 1 and 2
- Power supply via telephone call voltage
- Works independently even during power failures
- For use in explosive gas atmospheres in loud ambient conditions, to make an incoming telephone call more noticeable

II 2 G Ex e ib mb IIC T6
Zone 1, 2



TECHNICAL DATA

| | |
|-----------------------------|---|
| audible signal transmitter | Loudspeaker |
| Tone ringing volume | 90 dB |
| Input impedance | bei 25 HZ $Z \geq 8 \Omega$ bei 50 HZ $Z \geq 4 \Omega$ |
| Superimposed supply voltage | 0 V DC - 63 V DC |
| Tone sequence frequency | 5 to 20 Hz in 4 settings, can be adjusted with DIP switch |
| Equipotential bonding | Connection inside housing |
| Current | ≤ 3 A |
| Housing | Die-cast aluminium, polycarbonate upper part black (RAL 9005) |
| Type of mounting | Wall mounting or Ceiling mounting |
| Cable entry | 1 x M20x1,5; 1 x M12x1,5 |
| Connection technology | 0.75-1.5 mm ² /AWG 14, single or fine wire |
| Tone | Wobble tone, One tone, Two tones or Three tones Can be adjusted with DIP switch |
| Operating temperature | -20 °C / +40 °C |
| Degree of protection | IP66 |
| Approval | BVS 03 ATEX E430 |
| Ringing alternating current | 32 V AC - 75 V AC |
| Insulation class | I |
| Weight | 500 g |



AS1

ORDER DATA

| Type | Volume | Order number |
|------|--------|--------------|
| AS1 | 90 db | 410 100 004 |



VS1 Explosion-proof visual-audible signalling sounder

- For universal industrial use
- Certified for gas hazardous areas of zone 1 and 2
- Several tones/intermittent tone frequencies can be selected
- 2× 1 J strobe energy

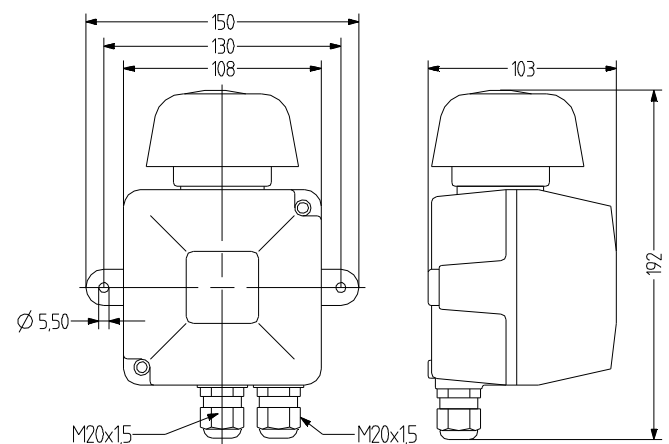
- Die-cast aluminium housing
- 5 lens colours
- Degree of protection IP 66
- Encapsulation "m"
- Terminal connection chamber "increased safety e"
- 230 V AC power supply

II 2 G Ex e mb [ib] IIC T6/T5/T4 Gb
 -20 °C ≤ Ta ≤ +40 °C/+50 °C/+60 °C
 Zone 1, 2



TECHNICAL DATA

| | |
|-----------------------------|---|
| audible signal transmitter | Loudspeaker |
| visual signal transmitter | 2 flashtubes with 1 J |
| Tone ringing volume | 90 dB |
| Mains connection | 230 V AC -15% +10%, 50/60 Hz |
| Type of ignition protection | ≤ 60 min at Ta +60°C ≤ 15 min at 60 Hz (30 min pause) |
| Telephone connection | 30 V AC - 75 V AC 23-54 Hz 0-63 V DC |
| Housing | Die-cast aluminium black (RAL 9005) |
| Lens | Polycarbonate, orange, red, clear, blue or green |
| Type of mounting | Wall mounting or Ceiling mounting |
| Cable entry | 2× cable glands M20 × 1.5 6-12 mm (main circuit) 5-10 mm (telephone circuit) |
| Connection technology | up to 1.5 mm ² single or fine wire |
| Strobe/flash frequency | 1-2 Hz |
| Tone | 3 Tones, One tone, Two tones or Three tones Can be adjusted with DIP switch |
| Duty cycle | ≤ 60 min at Ta +60°C; ≤ 15 min at 60 Hz (30 min pause) |
| Operating temperature | -20 °C / +60 °C |
| Degree of protection | IP66 |
| Approval | PTB 04 ATEX 2012 |
| Weight | 1,42 kg |



VS1

ORDER DATA

| Lens colour | Order number |
|-------------|--------------|
| orange | 410 101 005 |
| red | 410 102 005 |
| clear | 410 104 005 |
| blue | 410 105 005 |
| green | 410 106 005 |



HS1 Headset kit

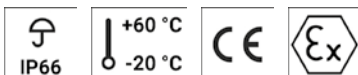
- Explosion-proof, intrinsically safe headset
- Reduction of loud ambient noise during a telephone conversation
- Facilitates communication during activities where both hands need to be free
- Certified for zone 1 and 2
- For use in explosive gas atmospheres
- Set contents: Headset with dynamic receiver, 14 m connecting cord, Bracket for attaching to the telephone

II 2G Ex ib IIB T4 Gb
Zone 1, 2



TECHNICAL DATA

| | |
|-----------------------|--|
| Connection cord | 14 m connecting cord |
| Housing | other |
| Cable entry | M20 × 1.5 cable gland |
| Operating temperature | -20 °C / +60 °C |
| Degree of protection | IP66 |
| Weight | 1,33 kg |
| Mouthpiece | noise-compensating close-range electret microphone |
| Receiver | dynamic receiver |



HS1

ORDER DATA

| Description | Order number |
|-------------|--------------|
| Headset kit | 410 100 001 |

