

TG240 Series



TG230 Series

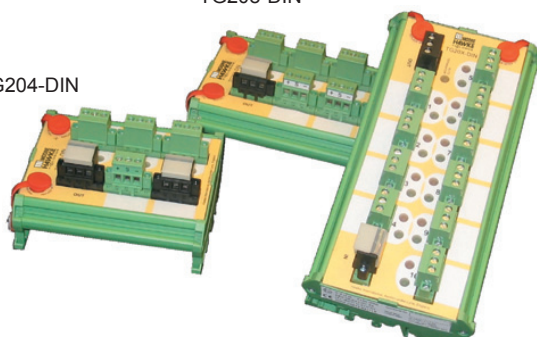


Unique short-circuit protection design switches fault current to trickle-level only - prevents spur faults from continuously loading a segment

Patented automatic termination feature - never forget a terminator again!

TG208-DIN

TG204-DIN



TG20X-DIN

Fieldbus Device Couplers reduce specification effort for systems integrators and wiring workload for field installers, by enabling fast and easy connection/disconnection of FOUNDATION fieldbus™ and PROFIBUS PA devices into fieldbus segments. Device Couplers are complete packages based on IP66 field enclosures complete with cable glands as specified to suit field wiring, and the easiest way to implement fieldbus effectively and without problems. TG200 units provide electronic and auto-resetting short-circuit protection, with automatic segment termination for 4, 8, 10 or 20 fieldbus devices.

MooreHawke's TRUNKGUARD™ technology for electronic short-circuit protection is designed differently to most vendors: on detection of excess spur current, the unit reacts immediately to switch spur current to a nominal trickle-level rather than simply limiting that fault current to a fixed (and always higher) level. So-called 'current-limiting' circuits actually *maintain* abnormal spur currents *without* clearing the fault, which may overload the segment power supply, cause random device disconnections or even whole segment failure.

TG units provide automatic segment termination via unique 'end-of-line' sensing circuits. At a stroke, this feature eliminates the most common installation error; under/over termination. The MooreHawke TG Series further accelerates field commissioning by providing easy access points for hand-held communicators.

Hazardous area approvals allow TG installation in Div2 and Zone2, typically for use with non-incendive devices. Standalone TG-DIN units can also be supplied for fitting (by others) into alternative enclosures meeting the overall requirements of the intended area of use.

Segment power needs to be provided by a suitable fieldbus-conditioned power supply and the MooreHawke FPS200 Series is recommended, providing 350mA per segment, DC supply redundancy and very high availability.

SPECIFICATION

Supply Voltage	9.5 to 32V DC (reverse-polarity protected)
Quiescent Current	18mA nominal (20mA with Auto-Terminator active)
Max. Fault Current	40mA (all spurs short-circuit, 25V supply)
Per Spur	
Maximum Spur Current	48mA
Voltage Drop	0.2V @ 20mA spur current (typical), 0.5V max.
Short Circuit Protection	Electronic fold-back design (switches faulty spur to 'trickle'-level current ~ 2mA)
LED Indicators	RED - Spur Fault GREEN - Spur Normal
Auto-Terminator	Nominal 100 Ohm / 1 µF Automatically activated by last TG200 unit in segment.
Terminals	0.8 to 2.5 mm ² / 12 to 24 AWG Pluggable connectors, retaining screws provided
Environmental	
Humidity	0-95%, non-condensing
Ambient Temperature	-40 to +70 Deg C (operating) -50 to +85 Deg C (storage)
Glands	Hawke 501/Universal/M20 offshore-quality brass (nickel-plating to special order)
EMC Compliance	EN50 082-2, Parts 1 & 2 for industrial applications
Surge Protection	500A (1.2/50µs impluse) Differential mode protection
Enclosure Options	
TG220 Series	316 stainless steel, electro-polished, 4-, 8- or 10-way
TG230 Series	Glass-Reinforced Polyester (GRP), 4-, 8- or 10-way
TG240 Series	316 stainless steel, electro-polished, hinged lockable cover 8-, 10-, or 20-way (typically 2 segments)
Rating	IP66 / NEMA 4X
Approvals	
ATEX Cat 3	Sira 04ATEX4111X
Energy Limited	EEx nL[nA] IIC T5 Trunk Ui=32V Ii=1.5A Ci=0 Li=0
Non-Arcing (spurs)	ATEX II 3 GD T5 Spur Uo=Ui Io=50mA IP66 T100°C (Dusts)
FM Class I Div2	FM File No. 3021946
Non-incendive	NI/II/2/ABCD/T5 Ta=70°C ANI/II/2/ABCD/T5 Ta=70°C
3600/3611/3810	Trunk Vi=32V Ii=1.5A Spur Vt=32V It=50mA <i>Must be fitted into suitable equipment enclosure and wired in accordance with Drg No. FTG200-FM</i>

TO ORDER, please specify full product code

TG204-DIN TG standalone unit, 4-way, DIN-rail mounting
 TG208-DIN TG standalone unit, 8-way, DIN-rail mounting
 TG20X-DIN TG standalone unit, 10-way, DIN-rail mounting

Device Couplers include TG unit, enclosure & cable glands
 TG224 - Device Coupler, 4-way, Stainless Steel (box)
 TG228 - Device Coupler, 8-way, Stainless Steel (box)
 TG22X - Device Coupler, 10-way, Stainless Steel (box)

TG234 - Device Coupler, 4-way, GRP
 TG238 - Device Coupler, 8-way, GRP
 TG23X - Device Coupler, 10-way, GRP

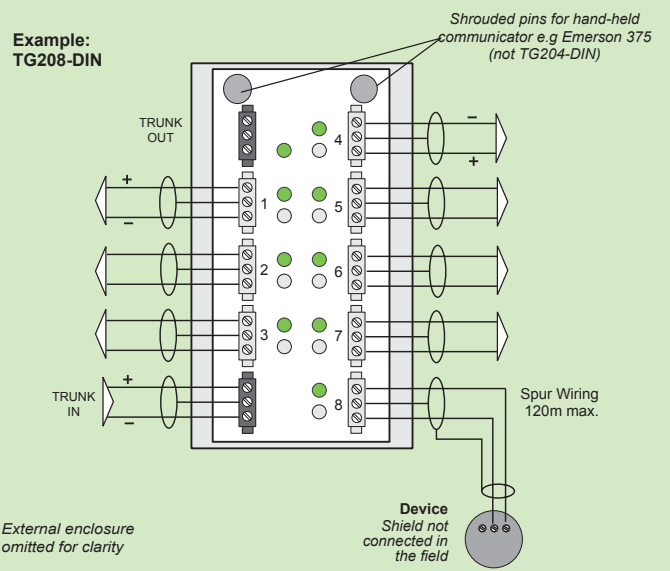
TG248- Device Coupler, 8-way, Stainless Steel (E-Z LID)
 TG24X- Device Coupler, 10-way, Stainless Steel (E-Z LID)
 TG24Y- Device Coupler, 20-way, Stainless Steel (E-Z LID)

- A 421 Gland, unarmoured cable, EEx e/d
 - B 453 Gland, armoured cable, EEx e/d
 (Note: above codes are for ALL entries, not mixtures)

	Type 421	Type 453	
	Cable outer sheath diam. (mm)		Hawke size
- S	3.0 - 8.0	5.5 - 12.0	(OS)
- O	7.5 - 11.9	9.5 - 16.0	(O)

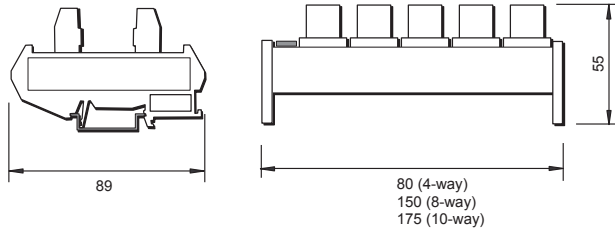
Example: TG238-A-S

TYPICAL HOOK-UP & APPLICATION

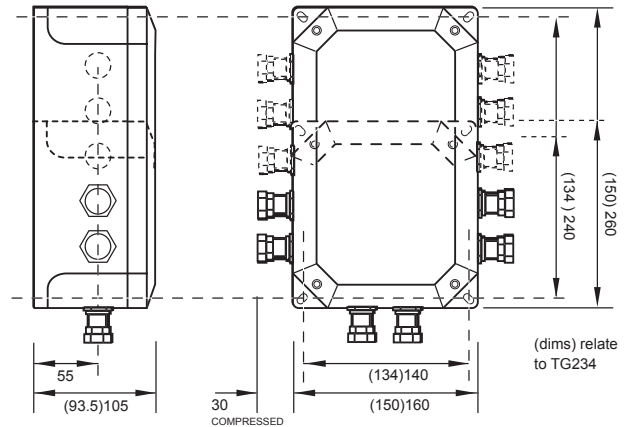


DIMENSIONS AND CABLE ENTRY POSITIONS (mm)

TG Standalone unit

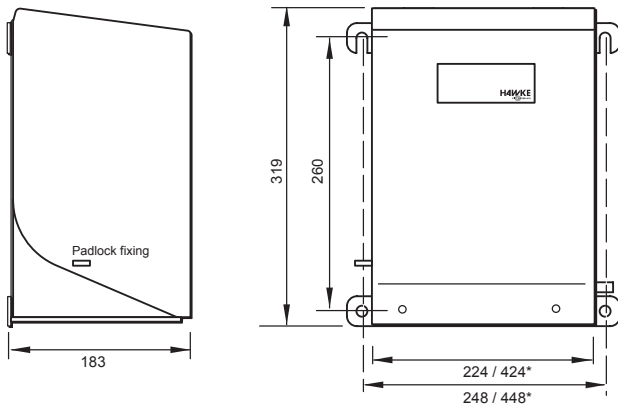


TG220 Series & TG230 Series

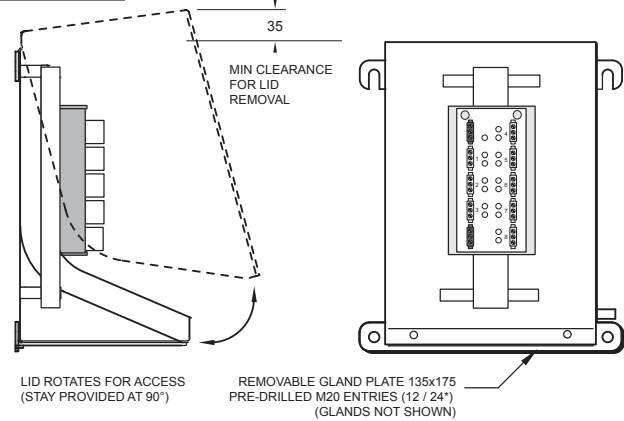


TG240 Series

(* TG24Y units)



DETAIL: LID REMOVED



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Specifications and information subject to change without notice.