

Fast and error-free device connections for FOUNDATION Fieldbus™ & PROFIBUS PA systems

Simple & reliable spur short-circuit protection

Terminator built-in, field-selectable

Automatic signal/power & screen routing between trunk & device wiring

All numbered terminals with clear on-board wiring diagram and tag strips

For use with any non-MooreHawke I.S. interface

Supports FISCO and Entity devices



FISCO



MooreHawke's RM100-S Device Couplers have been designed specifically to reduce specification and wiring/commissioning workload for fieldbus implementation, where non-MooreHawke I.S. interfaces (i.e I.S. power supplies) are preferred. These units contain all the necessary components for fast and easy on-site assembly, coming pre-configured with automatic signal routing, integral short-circuit protection per spur, field-selectable bus terminator and individual spur tagging facilities. As standard, these device couplers have high quality Hawke cable glands ready fitted to all entries, including a weather-proof seal so that unused entries need no further accessories. A wide variety of alternative glands and fittings are available on request.

The RM100-S Device Couplers are certified and approved for use in hazardous areas where the segment is powered by an intrinsically-safe interface of some kind. The approval is for connection to any I.S. interface with an output voltage not exceeding 22V, so all known I.S fieldbus interfaces can be used. However, final segment capacity is defined by the particular I.S. interface chosen and the maximum possible segment capacity is only available through the full MooreHawke RM100 ROUTE-MASTER fieldbus system.

Spur short-circuit protection is provided by an individual 62mA fuse, encapsulated and approved for use in hazardous areas. This fuse offers a fast acting and very reliable method of full fault isolation - electronic current-limiting circuits (by others) do not cut off any spur fault current, they actually continuously load the segment with (typically) 60mA on top of the normal segment operating current. These often take the segment dangerously close to the power supply limits, resulting in random drop-outs for devices unassociated with the original fault. The MooreHawke fuse system clears the original fault immediately, with no effects on other devices or the segment as a whole. Any blown fuse is easily replaceable in the field, under power, once the fault has been identified and removed.


Various materials are available for Device Couplers to suit any process application: either in GRP (glass-reinforced polyester) or in 316 stainless steel.

The RM138-S (GRP) has side cable entries and has direct surface fixing holes within the enclosure profile for ease of installation. Uniquely, the MooreHawke GRP enclosure incorporates a steel ground continuity plate as standard, so that all glands are automatically grounded as the enclosure is wired. The RM148-S enclosure in stainless steel goes even further to speed up installation by offering unparalleled access for wiring - the whole enclosure lid (including the top & sides) pivots out of the way and is also completely removable allowing access to internal components from all sides. The RM108-S-DIN is supplied without an enclosure for custom DIN-rail mounting.

A box of fuses (including spares) is provided with each Device Coupler on delivery. Recommended installation practice is to wire and test all device connections before fitting the fuses themselves. This avoids damaging fuses prematurely through inadvertent errors or cable shorts. Note: electronic auto-resetting short-circuit protection using TRUNKGUARD™ technology is available with the TG100 Series.

All Entity Concept or FISCO systems can be used with Hawke RM100-S Device Couplers, and the RM100-S Device Coupler can be installed in any Gas Group/Zone or Division as defined by the particular I.S. interface used.

SPECIFICATION

Capacity	8 fieldbus devices max., plus TRUNK IN / OUT		
Certification	Cenelec		
	ATEX Ⓢ II 1 G EEx ia IIB [IIC] T4 (Ta = -40°C to +70°C)		
		FM	
	Class I Division 1 Intrinsically-Safe For connection to Intrinsically Safe Group A/B/C/D devices		
Housing	RM108-S-DIN RM138-S RM148-S		
	No enclosure, DIN-rail mounting Glass Reinforced Polyester (GRP) Black 316 Stainless Steel, electropolished finish		
	Protection		
	IP66 (EN60 529), NEMA 4X (RM138-S & RM148-S) IP20 (EN60 529) (RM108-S)		
Weight			
c/w Hawke 121 glands (std)	RM108-S	RM138-S	RM148-S
	0.3kg	1.2.kg	2.5kg
Environmental			
	Humidity		
	0-95%, non-condensing		
	Operation		
	-40 to +70°C		
	Storage		
	-50 to +80°C		
Terminals	Rising cage-clamp, easy access 0.8 to 4.0 mm ² / 12 to 24 AWG		
Terminator	100 Ohms / 1 μF, activated by link (supplied)		
Short Circuit Protection	Encapsulated fuse per connected device - 62 mA		
Enclosure Earth	External 6mm dia. stud		
Cable Screen/Shield	Individual terminal connection, interlinked via internal tracking, isolated from local earth/ground		

**RM138-S-
RM148-S-** Device Coupler, 8-way, GRP
Device Coupler, 8-way, Stainless Steel

- A 421 Gland for unarmoured cable (standard)
- B 453 Gland for armoured cable, offshore use
- C 153 Gland for armoured cable, industrial

Nominal cable outer sheath diam. (mm)

	Type 421	Type 453 & 153
- S	3.0-8.0	5.5-12.0
- O	7.5-11.9	9.5-16.0

Example: **RM138-S-A-S**

Hawke International manufacture cable glands and seals for world-wide applications and to all international standards, full details on request.

RM108-S-DIN Device Coupler, 8-way, DIN-rail mounting

FUS-010 Fuse, 62mA, box of 10

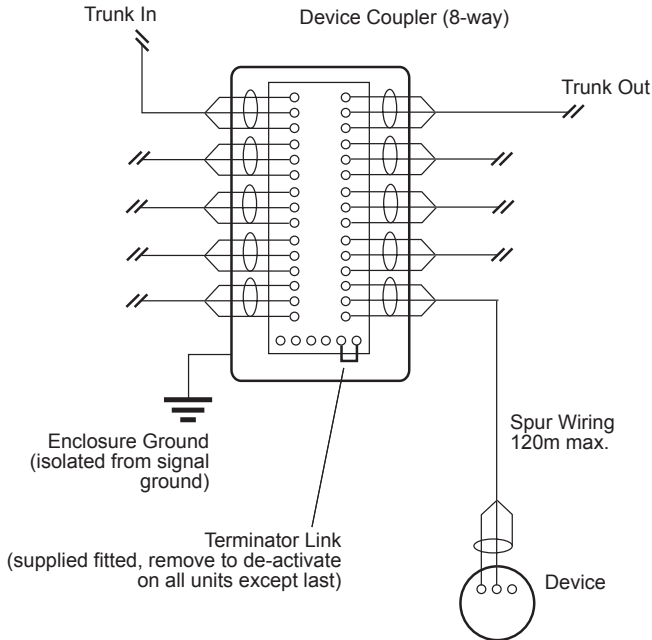
The Device Coupler should be located in a suitable plant position, convenient for maintenance access and minimising spur wiring to devices.

All necessary accessories (Trunk Terminator, fuses, specified cable glands and clearly identified terminations for signal and cable screens) are included. Additional fuses are available as FUS-010 (box of 10). An internal seal maintains weatherproofing for any unused cable gland entries. Note: it is essential to select the appropriate gland entry to suit the intended cable size.

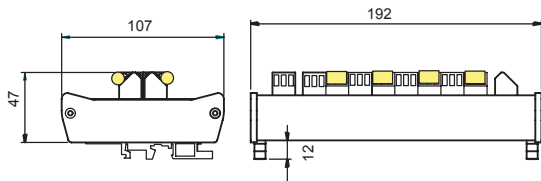
The number of fieldbus devices that can be connected into each segment is defined by the power available from the selected interface, the current draw per device and the cable voltage drop in the application. Please refer to the I.S. interface supplier for further assistance. If segment capacity required exceeds that available from this configuration, please consider the full MooreHawke RM100 system. This has a unique systems approach which can deliver 350mA into an I.S. segment and far exceeds even FISCO model designs in segment capability.

Regrettably, the Device Coupler Series RM100 and Series RM100-S are not interchangeable in I.S. applications.

TYPICAL HOOK-UP & APPLICATION

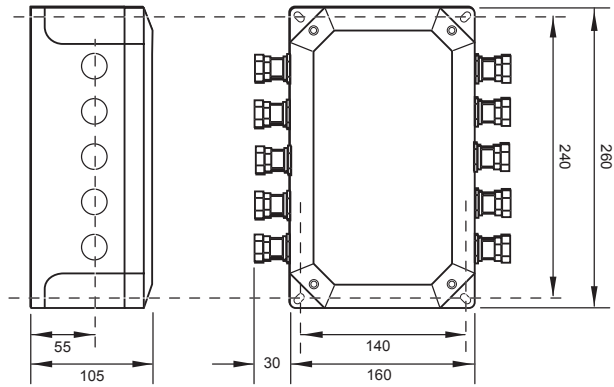


RM108-S-DIN

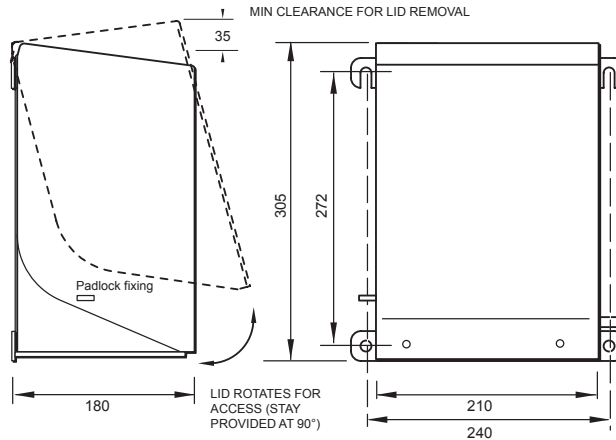


DIMENSIONS AND CABLE ENTRY POSITIONS (mm)

RM138-S



RM148-S



WORLDWIDE • www.miinet.com

United States • info@miinet.com
Tel: (818) 894-7111 • FAX: (818) 891-2816
Australia • sales@mooreind.com.au
Tel: (02) 8536-7200 • FAX: (02) 9525-7296

Belgium • info@mooreind.be
Tel: 03/448.10.18 • FAX: 03/440.17.97
The Netherlands • sales@mooreind.nl
Tel: (0)344-617971 • FAX: (0)344-615920

China • sales@mooreind.sh.cn
Tel: 86-21-62491499 • FAX: 86-21-62490635
United Kingdom • sales@mooreind.com
Tel: 01293 514488 • FAX: 01293 536852