

**ES70 SAMPLING SYSTEM**

Easidew PRO XP/IS - Promet Trace Moisture in Gases Sampling System

| Product Parent Code: ES70G (North American certification)<br>Easidew PRO XP/IS - Promet Trace Moisture in Gases Sampling System |  |  |
|---|--|--|
| Product Ordering Code {Feature A}+{Feature B}+{Feature C}+{Feature D}+...+{Feature M}   |  |  |
| Feature   | Item   | Description  |
| Feature {A}   | <b>Base Model</b>  |  |
|   | ES70G-I  | Configurable sample system with 1/4" tube and twin ferrule compression fittings. Gas wetted parts in 316 SS. Gas max pressure 138 barg, flow rate 1-5nl/min. Indoor panel: 750 x 750 x 2mm, Outdoor: 800 x 800 x 300mm |
|   | ES70G-M  | Configurable sample system with 6mm tube and twin ferrule compression fittings. Gas wetted parts in 316 SS. Gas max pressure 138 barg, flow rate 1-5nl/min. Indoor panel: 750 x 750 x 2mm, Outdoor: 800 x 800 x 300mm  |
| Feature {B}   | <b>Enclosure Type</b>  |  |
|   | B1   | Open panel, 316 stainless steel, for indoor installation in temperature maintained environment   |
|   | B2   | Standard outdoor sampling system (304 SS enclosure)  |
|   | B3   | Standard outdoor sampling system (316 SS enclosure)  |
|   | B4   | Standard outdoor sampling system (304 SS enclosure with window)  |
| B5  | Standard outdoor sampling system (316 SS enclosure with window)  |  |
| Feature {C}   | <b>Transmitter Mount</b>   |  |
|   | C1   | Mounting for Easidew PRO XP  |
|   | C2   | Mounting for Easidew PRO IS  |
|   | C4   | Mounting for Promet IS without pressure transmitter  |
| C6  | Mounting for Promet IS with pressure transmitter   |  |
| Feature {D}   | <b>Filter</b>  |  |
|   | D1   | Particulate: 5 µm SS Mesh  |
|   | D2   | Coalescing with manual drain (via system vent needle valve)  |
|   | D3   | Combined coalescing/oleophobic membrane with continuous drain flow (fast loop) - includes regulator & glass tube flow meter (metal case and protective plastic cover) with integral flow metering valve, 20 barg rated |
|   | D4   | Combined coalescing/oleophobic membrane with continuous drain flow (fast loop) - includes regulator & armoured flow meter with integral flow metering valve, 138 barg rated (Cannot be ordered with Option I3)         |
| D5  | Combined coalescing/oleophobic membrane with continuous drain flow (fast loop) - includes two stage regulation & armoured flow meter with integral flow metering valve, 138 barg rated |  |
| Feature {E}   | <b>Glycol Filter</b>   |  |
|   | E0   | No glycol adsorption filter  |
|   | E1   | Glycol adsorption filter (Not for use with Option D1)  |
| Feature {F}   | <b>Upstream Gauge</b>  |  |
|   | F0   | No gauge   |
|   | F1   | 63mm safety pattern - 0-100 barg / 0 - 1,500 psig  |
| F2  | 63mm safety pattern - 0-160 barg / 0 - 2,321psig   |  |
| Feature {G}   | <b>Upstream Pressure Regulation</b>  |  |
|   | G0   | No pressure regulator  |
|   | G1   | Single stage pressure regulator - Outlet 0 - 75 barg / 0 - 1089 psig   |
|   | G2   | Single stage pressure regulator - Outlet 0 - 8 barg / 0 - 116 psig   |
| G3  | Two stage pressure regulator - Outlet 0 - 8 barg / 0 - 116 psig  |  |
| Feature {H}   | <b>Sensor Measurement Pressure Gauge</b>   |  |
|   | H0   | No gauge   |
|   | H1   | 63mm safety pattern - 0-10 barg / 0 - 150 psig   |
|   | H2   | 63mm safety pattern - 0-100 barg / 0 - 1,500 psig  |
| H3  | 63mm safety pattern - 0-160 barg / 0 - 2,321psig   |  |
| Feature {I}   | <b>Downstream Pressure Regulation</b>  |  |
|   | I0   | No pressure regulator  |
|   | I1   | Single stage pressure regulator - Outlet 0 - 75 barg / 0 - 1089 psig   |
|   | I2   | Single stage pressure regulator - Outlet 0 - 8 barg / 0 - 116 psig   |
| I3  | Two stage pressure regulator - Outlet 0 - 8 barg / 0 - 116 psig  |  |
| Feature {J}   | <b>Flowmeter</b>   |  |
|   | J1   | Glass tube flow meter (metal case and protective plastic cover) with integral flow metering valve, 20 barg rated   |
|   | J2   | Armoured flow meter with integral flow metering valve, 138 barg rated  |
| Feature {K}   | <b>Heater/Thermostat (Outdoor systems only)</b>  |  |
|   | K0   | No heater  |
|   | K5   | 100W, 120VAC, with fixed set point thermostat 20°C - NEC Cl1 Div2 Grp B,C,D  |
|   | K6   | 100W, 120VAC, with fixed set point thermostat 40°C - NEC Cl1 Div2 Grp B,C,D (not for use with L7)  |

## Process Analyzers

|   |   |   |
|---|---|---|
| <b>Feature {L}</b>  | <b>Enclosure cooling (Outdoor systems only)</b> |   |
|   | L0  | No Enclosure Cooling  |
|   | L7  | Enclosure cooling (mechanical control) for temperature 45°C max. ambient (instrument air supply required) |
| <b>Feature {N}</b>  | <b>Heat Trace Line (Outdoor system only)</b>    |   |
|   | N0  | No heat trace option  |
|   | N1  | 240VAC 3m trace heated sample line assembly (6mm O.D. AISI 316)   |
|   | N2  | 240VAC 3m trace heated sample line assembly (1/4" O.D. AISI 316)  |
|   | N3  | 110VAC 3m trace heated sample line assembly (6mm O.D. AISI 316)   |
|   | N4  | 110VAC 3m trace heated sample line assembly (1/4" O.D. AISI 316)  |
| For systems needing > 3m trace heated sample line (max. 15m) - contact Michell Instruments                              |   |   |
| <b>Feature {M}</b>  | <b>Material Certification</b>                   |   |
|   | M0  | No material certification   |
|   | * M1  | Material certificate to BS EN 10204 – type 3.1  |
|   | * M2  | Material certificate to BS EN 10204 – type 3.1 + NACE MR0175 Conformity                                   |
| <b>* On certain labor intensive services, no discount can be offered. These items are always offered at list price.</b> |   |   |

### Ordering Example

|   |   |
|---|---|
| <b>ES70G-M<br/>+B3+C1+D3+E1+F0+G1+H1<br/>+I0+J2+K0+L0+N0+M0</b> | <b>Base Unit - Metric (6mm) tube and fittings, standard outdoor sampling system (316 SS enclosure), mounting for Easidew PRO XP, Combined coalescing/oleophobic membrane with continuous drain flow (fast loop) - includes regulator &amp; glass tube flow meter (metal case and protective plastic cover) with integral flow metering valve (20 barg rated), glycol adsorption filter, no upsteam gauge, single stage pressure regulator - Outlet 0 - 75 barg/0 - 1089 psig, sensor pressure measurement gauge 63mm Safety Pattern - 0-10 barg/0 - 150 psig, no downstream pressure regulator, armoured flow meter with integral flow metering valve, 138 barg rated, no heater, no cooling, no heat trace, no material certificates</b> |
|---|---|

## ES70 ACCESSORIES, SPARE PARTS, DOCUMENTATION & SERVICES

| Order Codes  | Product / Description  |
|--|--|
| <b>Spares &amp; Accessories</b>  |  |
| ES70-MF  | Michell standard mounting frame  |
| ES70-SSC   | Michell standard mounting frame, 316SS box section construction. Floor standing with sun canopy, with roof and three sides all SS316                                 |
| <b>Documentation (Standard documentation package comprises User Manuals (one printed per analyzer system) plus CD ROM containing Ex certificates, Drawing Set, Calibration Certificates and Pressure test certificates)</b>  |  |
| * SP-MC  | Material Certificates for spare parts  |
| * ES70-DOC   | Documentation package (per individual system (to Michell Standard SDR list))   |
| * ES70-DOC-E   | Electronic Documentation Booklet - EDB (per individual system (to Michell Standard SDR list). Each section of the EDB will be bookmarked and compiled as a PDF file) |
| * ES70-DOC-ADH   | Duplicate of DOC package (each hard copy)  |
| * ES70-DOC-ADS   | Duplicate of DOC package (each soft copy (CDROM))  |
| * ES70-DOC-ADE   | Duplicate of DOC-E package (on CDROM)  |
| * ES70-DOC-CVDR  | Documentation package for customer specific VDR  |
| * ES70-DOC-CP  | Document package on customer headed paper (per individual system (to Michell Standard SDR list))   |
| * ES70-DOC-CP-ADH  | Duplicate of DOC package on customer headed paper (each hard copy)   |
| * ES70-DOC-CP-ADS  | Duplicate of DOC package on customer headed paper (each soft copy (CDROM))   |
| * ES70-DRG   | Drawings for approval before build   |
| <b>Packaging</b>   |  |
| * ES70-PAC1  | Packing for Main Unit with Indoor Sampling System (crate for air & road)   |
| * ES70-PAC2  | Packing for Main Unit with Outdoor Sampling System (crate for air & road)  |
| * ES70-PAC3  | Packing for Mounting Frame and accessories only (crate for air & road)   |
| * ES70-PAC4  | Packing for Heat Trace line up to 15m length (crate for air & road)  |
| * ES70-PAC5  | Packing for Analyzer with Sun Canopy, with roof and 3 Sides (crate for air & road)   |
| For systems needing > 3m trace heated sample line (max. 15m) - contact Michell Instruments   |  |
| <b>Additional Services</b>   |  |
| ** ES70-FAT1   | One day FAT pre-delivery inspection / or first day of inspection   |
| ** ES70-FAT2   | Each consecutive day of FAT pre-delivery inspection  |
| ** GEN-FAT-ST8   | 8 hour unwitnessed stability test  |
| ** GEN-FAT-ST12  | 12 hour unwitnessed stability test   |
| ** GEN-FAT-ST24  | 24 hour unwitnessed stability test   |
| <b>Service Spares</b>  |  |
| GEN-96181  | Filter kit for Coalescer and Membrane Separator - each   |
| GEN-96106  | Particulate filter 5µm SS mesh replacement element   |
| GEN-96114  | Filter Glyorb; Element for 96131   |
| <b>* On certain labor intensive services, no discount can be offered. These items are always offered at list price.</b>  |  |
| <b>**These are the Michell charges for the FAT only. The cost of any third party inspector attending will be passed on, at cost, in addition to the Michell charges. Therefore, please ensure that the costs of any third party inspector(s) are added at the quotation stage.</b> |  |

**ES70 SAMPLING SYSTEM**

Easidew PRO XP/IS - Promet Trace Moisture in Gases Sampling System

| Product Parent Code: ES70G (ATEX/IECEX certification)                                 |  |  |
|---|--|--|
| Easidew PRO XP/IS - Promet Trace Moisture in Gases Sampling System                    |  |  |
| Product Ordering Code {Feature A}+{Feature B}+{Feature C}+{Feature D}+...+{Feature M} |  |  |
| Feature   | Item   | Description  |
| <b>Feature {A}</b>  | <b>Base Model</b>  |  |
|   | ES70G-I  | Configurable sample system with 1/4" tube and twin ferrule compression fittings. Gas wetted parts in 316 SS. Gas max pressure 138 barg, flow rate 1-5nl/min. Indoor panel: 750 x 750 x 2mm, Outdoor: 800 x 800 x 300mm |
|   | ES70G-M  | Configurable sample system with 6mm tube and twin ferrule compression fittings. Gas wetted parts in 316 SS. Gas max pressure 138 barg, flow rate 1-5nl/min. Indoor panel: 750 x 750 x 2mm, Outdoor: 800 x 800 x 300mm  |
| <b>Feature {B}</b>  | <b>Enclosure Type</b>  |  |
|   | B1   | Open panel, 316 stainless steel, for indoor installation in temperature maintained environment   |
|   | B2   | Standard outdoor sampling system (304 SS enclosure)  |
|   | B3   | Standard outdoor sampling system (316 SS enclosure)  |
|   | B4   | Standard outdoor sampling system (304 SS enclosure with window)  |
| B5  | Standard outdoor sampling system (316 SS enclosure with window)  |  |
| <b>Feature {C}</b>  | <b>Transmitter Mount</b>   |  |
|   | C1   | Mounting for Easidew PRO XP  |
|   | C2   | Mounting for Easidew PRO IS  |
|   | C3   | Mounting for Easidew PRO IS with local display   |
|   | C4   | Mounting for Promet IS without pressure transmitter  |
| C5  | Mounting for Promet IS with pressure transmitter   |  |
| <b>Feature {D}</b>  | <b>Filter</b>  |  |
|   | D1   | Particulate: 5 µm SS Mesh  |
|   | D2   | Coalescing with manual drain (via system vent needle valve)  |
|   | D3   | Combined coalescing/oleophobic membrane with continuous drain flow (fast loop) - includes regulator & glass tube flow meter (metal case and protective plastic cover) with integral flow metering valve, 20 barg rated |
|   | D4   | Combined coalescing/oleophobic membrane with continuous drain flow (fast loop) - includes regulator & armoured flow meter with integral flow metering valve, 138 barg rated (Cannot be ordered with Option I3)         |
| D5  | Combined coalescing/oleophobic membrane with continuous drain flow (fast loop) - includes two stage regulation & armoured flow meter with integral flow metering valve, 138 barg rated |  |
| <b>Feature {E}</b>  | <b>Glycol Filter</b>   |  |
|   | E0   | No glycol adsorption filter  |
|   | E1   | Glycol adsorption filter (Not for use with Option D1)  |
| <b>Feature {F}</b>  | <b>Upstream Gauge</b>  |  |
|   | F0   | No gauge   |
|   | F1   | 63mm safety pattern - 0-100 barg / 0 - 1,500 psig  |
| F2  | 63mm safety pattern - 0-160 barg / 0 - 2,321psig   |  |
| <b>Feature {G}</b>  | <b>Upstream Pressure Regulation</b>  |  |
|   | G0   | No pressure regulator  |
|   | G1   | Single stage pressure regulator - Outlet 0 - 75 barg / 0 - 1089 psig   |
|   | G2   | Single stage pressure regulator - Outlet 0 - 8 barg / 0 - 116 psig   |
| G3  | Two stage pressure regulator - Outlet 0 - 8 barg / 0 - 116 psig  |  |
| <b>Feature {H}</b>  | <b>Sensor Measurement Pressure Gauge</b>   |  |
|   | H0   | No gauge   |
|   | H1   | 63mm safety pattern - 0-10 barg / 0 - 150 psig   |
|   | H2   | 63mm safety pattern - 0-100 barg / 0 - 1,500 psig  |
| H3  | 63mm safety pattern - 0-160 barg / 0 - 2,321psig   |  |
| <b>Feature {I}</b>  | <b>Downstream Pressure Regulation</b>  |  |
|   | I0   | No pressure regulator  |
|   | I1   | Single stage pressure regulator - Outlet 0 - 75 barg / 0 - 1089 psig   |
|   | I2   | Single stage pressure regulator - Outlet 0 - 8 barg / 0 - 116 psig   |
| I3  | Two stage pressure regulator - Outlet 0 - 8 barg / 0 - 116 psig  |  |
| <b>Feature {J}</b>  | <b>Flowmeter</b>   |  |
|   | J1   | Glass tube flow meter (metal case and protective plastic cover) with integral flow metering valve, 20 barg rated   |
|   | J2   | Armoured flow meter with integral flow metering valve, 138 barg rated  |
| <b>Feature {K}</b>  | <b>Heater/Thermostat (Outdoor systems only)</b>  |  |
|   | K0   | No heater  |
|   | K1   | 100W, 230VAC, with fixed set point thermostat 20°C - ATEX/IECEX  |
|   | K2   | 100W, 230VAC, with fixed set point thermostat 40°C - ATEX/IECEX (not for use with L7)  |
|   | K3   | 100W, 110VAC, with fixed set point thermostat 20°C - ATEX/IECEX  |
| K4  | 100W, 110VAC, with fixed set point thermostat 40°C - ATEX/IECEX (not for use with L7)  |  |

## Process Analyzers

|   |   |   |
|---|---|---|
| <b>Feature {L}</b>  | <b>Enclosure cooling (Outdoor systems only)</b> |   |
|   | L0  | No Enclosure Cooling  |
|   | L7  | Enclosure cooling (mechanical control) for temperature 45°C max. ambient (instrument air supply required) |
| <b>Feature {N}</b>  | <b>Heat Trace Line (Outdoor system only)</b>    |   |
|   | N0  | No heat trace option  |
|   | N1  | 240VAC 3m trace heated sample line assembly (6mm O.D. AISI 316)   |
|   | N2  | 240VAC 3m trace heated sample line assembly (1/4" O.D. AISI 316)  |
|   | N3  | 110VAC 3m trace heated sample line assembly (6mm O.D. AISI 316)   |
|   | N4  | 110VAC 3m trace heated sample line assembly (1/4" O.D. AISI 316)  |
| For systems needing > 3m trace heated sample line (max. 15m) - contact Michell Instruments                              |   |   |
| <b>Feature {M}</b>  | <b>Material Certification</b>                   |   |
|   | M0  | No material certification   |
|   | * M1  | Material certificate to BS EN 10204 – type 3.1  |
|   | * M2  | Material certificate to BS EN 10204 – type 3.1 + NACE MR0175 Conformity                                   |
| <b>* On certain labor intensive services, no discount can be offered. These items are always offered at list price.</b> |   |   |

### Ordering Example

|   |  |
|---|--|
| <b>ES70G-M</b><br><b>+B3+C1+D3+E1+F0+G1+H1</b><br><b>+I0+J2+K0+L0+N0+M0</b> | <b>Base Unit - Metric (6mm) tube and fittings, standard outdoor sampling system (316 SS enclosure), mounting for Easidew PRO XP, Combined coalescing/oleophobic membrane with continuous drain flow (fast loop) - includes regulator &amp; glass tube flow meter (metal case and protective plastic cover) with integral flow metering valve (20 barg rated), glycol adsorption filter, no upstream gauge, single stage pressure regulator - Outlet 0 - 75 barg/0 - 1089 psig, sensor pressure measurement gauge 63mm Safety Pattern - 0-10 barg/0 - 150 psig, no downstream pressure regulator, armoured flow meter with integral flow metering valve, 138 barg rated, no heater, no cooling, no heat trace, no material certificates</b> |
|---|--|

## ES70 ACCESSORIES, SPARE PARTS, DOCUMENTATION & SERVICES

| Order Codes   | Product / Description   |
|---|---|
| <b>Spares &amp; Accessories</b>   |   |
| ES70-MF   | Michell standard mounting frame   |
| ES70-SSC  | Michell standard mounting frame, 316SS box section construction. Floor standing with sun canopy, with roof and three sides all SS316                                |
| <b>Documentation (Standard documentation package comprises User Manuals (one printed per analyzer system) plus CD ROM containing Ex certificates, Drawing Set, Calibration Certificates and Pressure test certificates)</b>   |   |
| * SP-MC   | Material Certificates for spare parts   |
| * ES70-DOC  | Documentation package (per individual system (to Michell Standard SDR list))  |
| * ES70-DOC-E  | Electronic Documentation Booklet - EDB (per individual system (to Michell Standard SDR list). Each section of the EDB will be bookmarked and compiled as a PDF file |
| * ES70-DOC-ADH  | Duplicate of DOC package (each hard copy)   |
| * ES70-DOC-ADS  | Duplicate of DOC package (each soft copy (CDROM))   |
| * ES70-DOC-ADE  | Duplicate of DOC-E package (on CDROM)   |
| * ES70-DOC-CVDR   | Documentation package for customer specific VDR   |
| * ES70-DOC-CP   | Document package on customer headed paper (per individual system (to Michell Standard SDR list))  |
| * ES70-DOC-CP-ADH   | Duplicate of DOC package on customer headed paper (each hard copy)  |
| * ES70-DOC-CP-ADS   | Duplicate of DOC package on customer headed paper (each soft copy (CDROM))  |
| * ES70-DRG  | Drawings for approval before build  |
| <b>Packaging</b>  |   |
| * ES70-PAC1   | Packing for Main Unit with Indoor Sampling System (crate for air & road)  |
| * ES70-PAC2   | Packing for Main Unit with Outdoor Sampling System (crate for air & road)   |
| * ES70-PAC3   | Packing for Mounting Frame and accessories only (crate for air & road)  |
| * ES70-PAC4   | Packing for Heat Trace line up to 15m length (crate for air & road)   |
| * ES70-PAC5   | Packing for Analyzer with Sun Canopy, with roof and 3 Sides (crate for air & road)  |
| For systems needing > 3m trace heated sample line (max. 15m) - contact Michell Instruments  |   |
| <b>Additional Services</b>  |   |
| ** ES70-FAT1  | One day FAT pre-delivery inspection / or first day of inspection  |
| ** ES70-FAT2  | Each consecutive day of FAT pre-delivery inspection   |
| ** GEN-FAT-ST8  | 8 hour unwitnessed stability test   |
| ** GEN-FAT-ST12   | 12 hour unwitnessed stability test  |
| ** GEN-FAT-ST24   | 24 hour unwitnessed stability test  |
| <b>Service Spares</b>   |   |
| GEN-96181   | Filter kit for Coalescer and Membrane Separator - each  |
| GEN-96106   | Particulate filter 5µm SS mesh replacement element  |
| GEN-96114   | Filter Glyorb; Element for 96131  |
| <b>* On certain labor intensive services, no discount can be offered. These items are always offered at list price.</b>   |   |
| <b>** These are the Michell charges for the FAT only. The cost of any third party inspector attending will be passed on, at cost, in addition to the Michell charges. Therefore, please ensure that the costs of any third party inspector(s) are added at the quotation stage.</b> |   |

## ES70 SAMPLING SYSTEM

Easidew PRO XP/IS - Liquidew Trace Moisture in Liquids Sampling System

| Product Parent Code: ES70L (North American certification)<br>Easidew PRO XP/IS - Liquidew Trace Moisture in Liquids Sampling System |   |   |
|---|---|---|
| Product Ordering Code {Feature A}+{Feature B}+{Feature C}+{Feature D}+...+{Feature M}   |   |   |
| Feature   | Item  | Description   |
| Feature {A}   | <b>Base Model</b>   |   |
|   | ES70L-I   | Configurable sample system with 1/4" tube and twin ferrule compression fittings. Fluid wetted parts in 316 SS. Liquid max pressure 50 barg, flow rate 0.1 to 0.3 l/min recommended. Indoor panel: 750 x 750 x 2mm, Outdoor: 800 x 800 x 300mm |
|   | ES70L-M   | Configurable sample system with 6mm tube and twin ferrule compression fittings. Fluid wetted parts in 316 SS. Liquid max pressure 50 barg, flow rate 0.1 to 0.3 l/min recommended. Indoor panel: 750 x 750 x 2mm, Outdoor: 800 x 800 x 300mm  |
| Feature {B}   | <b>Enclosure Type</b>   |   |
|   | B1  | Open panel, 316 stainless steel, for indoor installation in temperature maintained environment  |
|   | B2  | Standard outdoor sampling system (304 SS enclosure)   |
|   | B3  | Standard outdoor sampling system (316 SS enclosure)   |
|   | B4  | Standard outdoor sampling system (304 SS enclosure with window)   |
| B5  | Standard outdoor sampling system (316 SS enclosure with window)                                   |   |
| Feature {C}   | <b>Transmitter Mount</b>  |   |
|   | C1  | Mounting for Easidew PRO XP   |
|   | C2  | Mounting for Easidew PRO IS   |
| Feature {D}   | <b>Filter</b>   |   |
|   | D0  | No filter   |
|   | D1  | Particulate: 5 µm SS Mesh   |
| D2  | Two stage particulate: 75 & 5 µm SS Mesh  |   |
| Feature {E}   | <b>Flowmeter</b>  |   |
|   | E1  | Glass tube flow meter (metal case and protective plastic cover) with integral flow metering valve, 20 barg rated  |
| E2  | Armoured flow meter with integral flow metering valve, 138 barg rated                             |   |
| Feature {F}   | <b>Sample Cooling</b>   |   |
|   | F0  | No cooling  |
|   | F1  | Sample cooling open panel - for process =>45°C (water supply required)  |
| F2  | Sample cooling outdoor enclosure - for process =>45°C (water supply required)                     |   |
| Feature {G}   | <b>Heater/Thermostat (Outdoor systems only)</b>   |   |
|   | G0  | No heater   |
|   | G5  | 100W, 120VAC, with fixed set point thermostat 20°C - NEC C11 Div2 Grp B,C,D   |
| G6  | 100W, 120VAC, with fixed set point thermostat 40°C - NEC C11 Div2 Grp B,C,D (not for use with L7) |   |
| Feature {H}   | <b>Enclosure cooling (Outdoor systems only)</b>   |   |
|   | H0  | No enclosure cooling  |
|   | H7  | Enclosure cooling (mechanical control) for temperature 45°C max. ambient (instrument air supply required)   |
| Feature {I}   | <b>Enclosure Temperature Indication</b>   |   |
|   | I0  | No temperature indicator  |
| I1  | Temperature indicator   |   |
| Feature {J}   | <b>Heat Trace Line</b>  |   |
|   | J0  | No heat trace option  |
|   | J1  | 240VAC 3m trace heated sample line assembly (6mm O.D. AISI 316)   |
|   | J2  | 240VAC 3m trace heated sample line assembly (1/4" O.D. AISI 316)  |
|   | J3  | 110VAC 3m trace heated sample line assembly (6mm O.D. AISI 316)   |
|   | J4  | 110VAC 3m trace heated sample line assembly (1/4" O.D. AISI 316)  |
| For systems needing > 3m trace heated sample line (max. 15m) - contact Michell Instruments  |   |   |
| Feature {M}   | <b>Material Certification</b>   |   |
|   | M0  | No material certification   |
|   | * M1  | Material certificate to BS EN 10204 – type 3.1  |
| * M2  | Material certificate to BS EN 10204 – type 3.1 + NACE MR0175 Conformity                           |   |

\* On certain labor intensive services, no discount can be offered. These items are always offered at list price.

### Ordering Example

|                                       |  |
|---------------------------------------|--|
| ES70L-I+B4+C1+D2+E2+F0+G5+H0+I1+J0+M1 | Base Unit - Imperial (1/4") tube and fittings, standard outdoor sampling system (304 SS enclosure with window), mounting for Easidew PRO XP, two stage Particulate: 75 & 5 µm SS Mesh filter, armoured flow meter with integral flow metering valve (138 barg rated), no sample cooling, heater 100W, 120VAC, with fixed set point thermostat 20°C- NEC C11 Div2 Grp B,C,D; no enclosure cooling, enclosure temperature indication, no heat trace option, material certificate to BS EN 10204 – type 3.1 |
|---------------------------------------|--|

**ES70 ACCESSORIES, SPARE PARTS, DOCUMENTATION & SERVICES**

| Order Codes  | Product / Description   |
|--|---|
| <b>Spares &amp; Accessories</b>  |   |
| ES70-MF  | Michell standard mounting frame   |
| ES70-SSC   | Michell standard mounting frame, 316SS box section construction. Floor standing with sun canopy, with roof and three sides all SS316                                |
| <b>Documentation (Standard documentation package comprises User Manuals (one printed per analyzer system) plus CD ROM containing Ex certificates, Drawing Set, Calibration Certificates and Pressure test certificates)</b>  |   |
| * SP-MC  | Material Certificates for spare parts   |
| * ES70-DOC   | Documentation package (per individual system (to Michell Standard SDR list))  |
| * ES70-DOC-E   | Electronic Documentation Booklet - EDB (per individual system (to Michell Standard SDR list). Each section of the EDB will be bookmarked and compiled as a PDF file |
| * ES70-DOC-ADH   | Duplicate of DOC package (each hard copy)   |
| * ES70-DOC-ADS   | Duplicate of DOC package (each soft copy (CDROM))   |
| * ES70-DOC-ADE   | Duplicate of DOC-E package (on CDROM)   |
| * ES70-DOC-CVDR  | Documentation package for customer specific VDR   |
| * ES70-DOC-CP  | Document package on customer headed paper (per individual system (to Michell Standard SDR list))  |
| * ES70-DOC-CP-ADH  | Duplicate of DOC package on customer headed paper (each hard copy)  |
| * ES70-DOC-CP-ADS  | Duplicate of DOC package on customer headed paper (each soft copy (CDROM))  |
| * ES70-DRG   | Drawings for approval before build  |
| <b>Packaging</b>   |   |
| * ES70-PAC1  | Packing for Main Unit with Indoor Sampling System (crate for air & road)  |
| * ES70-PAC2  | Packing for Main Unit with Outdoor Sampling System (crate for air & road)   |
| * ES70-PAC3  | Packing for Mounting Frame and accessories only (crate for air & road)  |
| * ES70-PAC4  | Packing for Heat Trace line up to 15m length (crate for air & road)   |
| * ES70-PAC5  | Packing for Analyzer with Sun Canopy, with roof and 3 Sides (crate for air & road)  |
| For systems needing > 3m trace heated sample line (max. 15m) - contact Michell Instruments   |   |
| <b>Additional Services</b>   |   |
| ** ES70-FAT1   | One day FAT pre-delivery inspection / or first day of inspection  |
| ** ES70-FAT2   | Each consecutive day of FAT pre-delivery inspection   |
| ** GEN-FAT-ST8   | 8 hour unwitnessed stability test   |
| ** GEN-FAT-ST12  | 12 hour unwitnessed stability test  |
| ** GEN-FAT-ST24  | 24 hour unwitnessed stability test  |
| <b>Service Spares</b>  |   |
| GEN-96106  | Particulate filter 5µm SS mesh replacement element  |
| GEN-96132  | Particulate filter 50µm mesh replacement element  |
| <b>* On certain labor intensive services, no discount can be offered. These items are always offered at list price.</b>  |   |
| <b>**These are the Michell charges for the FAT only. The cost of any third party inspector attending will be passed on, at cost, in addition to the Michell charges. Therefore, please ensure that the costs of any third party inspector(s) are added at the quotation stage.</b> |   |

## ES70 SAMPLING SYSTEM

Easidew PRO XP/IS - Liquidew IS Trace Moisture in Liquids Sampling System

| Product Parent Code: ES70 (ATEX/IECEX certification)<br>Easidew PRO XP/IS - Liquidew IS Trace Moisture in Liquids Sampling System |  |   |
|---|--|---|
| Product Ordering Code {Feature A}+{Feature B}+{Feature C}+{Feature D}+...+{Feature M}   |  |   |
| Feature   | Item   | Description   |
| Feature {A}   | <b>Base Model</b>  |   |
|   | ES70L-I  | Configurable sample system with 1/4" tube and twin ferrule compression fittings. Fluid wetted parts in 316 SS. Liquid max pressure 50 barg, flow rate 0.1 to 0.3 l/min recommended. Indoor panel: 750 x 750 x 2mm, Outdoor: 800 x 800 x 300mm |
|   | ES70L-M  | Configurable sample system with 6mm tube and twin ferrule compression fittings. Fluid wetted parts in 316 SS. Liquid max pressure 50 barg, flow rate 0.1 to 0.3 l/min recommended. Indoor panel: 750 x 750 x 2mm, Outdoor: 800 x 800 x 300mm  |
| Feature {B}   | <b>Enclosure Type</b>  |   |
|   | B1   | Open panel, 316 stainless steel, for indoor installation in temperature maintained environment  |
|   | B2   | Standard outdoor sampling system (304 SS enclosure)   |
|   | B3   | Standard outdoor sampling system (316 SS enclosure)   |
|   | B4   | Standard outdoor sampling system (304 SS enclosure with window)   |
|   | B5   | Standard outdoor sampling system (316 SS enclosure with window)   |
| Feature {C}   | <b>Transmitter Mount</b>   |   |
|   | C1   | Mounting for Easidew PRO XP   |
|   | C2   | Mounting for Easidew PRO IS   |
|   | C4   | Mounting for Liquidew IS (ATEX)   |
| Feature {D}   | <b>Filter</b>  |   |
|   | D0   | No filter   |
|   | D1   | Particulate: 5 µm SS Mesh   |
|   | D2   | Two stage particulate: 75 & 5 µm SS Mesh  |
| Feature {E}   | <b>Flowmeter</b>   |   |
|   | E1   | Glass tube flow meter (metal case and protective plastic cover) with integral flow metering valve, 20 barg rated  |
|   | E2   | Armoured flow meter with integral flow metering valve, 138 barg rated   |
| Feature {F}   | <b>Sample Cooling</b>  |   |
|   | F0   | No cooling  |
|   | F1   | Sample cooling open panel - for process =>45°C (water supply required)  |
|   | F2   | Sample cooling outdoor enclosure - for process =>45°C (water supply required)   |
| Feature {G}   | <b>Heater/Thermostat (Outdoor systems only)</b>  |   |
|   | G0   | No heater   |
|   | G1   | 100W, 230VAC, with fixed set point thermostat 20°C - ATEX/IECEX   |
|   | G2   | 100W, 230VAC, with fixed set point thermostat 40°C - ATEX/IECEX (not for use with H7)   |
|   | G3   | 100W, 110VAC, with fixed set point thermostat 20°C - ATEX/IECEX   |
|   | G4   | 100W, 110VAC, with fixed set point thermostat 40°C - ATEX/IECEX (not for use with H7)   |
| Feature {H}   | <b>Enclosure cooling (Outdoor systems only)</b>  |   |
|   | H0   | No enclosure cooling  |
|   | H7   | Enclosure cooling (mechanical control) for temperature 45°C max. ambient (instrument air supply required)   |
| Feature {I}   | <b>Enclosure Temperature Indication</b>  |   |
|   | I0   | No temperature indicator  |
|   | I1   | Temperature indicator   |
| Feature {J}   | <b>Heat Trace Line</b>   |   |
|   | J0   | No heat trace option  |
|   | J1   | 240VAC 3m trace heated sample line assembly (6mm O.D. AISI 316)   |
|   | J2   | 240VAC 3m trace heated sample line assembly (1/4" O.D. AISI 316)  |
|   | J3   | 110VAC 3m trace heated sample line assembly (6mm O.D. AISI 316)   |
|   | J4   | 110VAC 3m trace heated sample line assembly (1/4" O.D. AISI 316)  |
|   | For systems needing > 3m trace heated sample line (max. 15m) - contact Michell Instruments |   |
| Feature {M}   | <b>Material Certification</b>  |   |
|   | M0   | No material certification   |
|   | * M1   | Material certificate to BS EN 10204 – type 3.1  |
|   | * M2   | Material certificate to BS EN 10204 – type 3.1 + NACE MR0175 Conformity   |

\* On certain labor intensive services, no discount can be offered. These items are always offered at list price.

### Ordering Example

|   |  |
|---|--|
| ES70L-I+B4+C1+D2+E2<br>+F0+G1+H0+I1+J0+M1 | Base Unit - Imperial (1/4") tube and fittings, standard outdoor sampling system (304 SS enclosure with window), mounting for Easidew PRO XP, two stage Particulate: 75 & 5 µm SS Mesh filter, armoured flow meter with integral flow metering valve (138 barg rated), no sample cooling, heater 100W, 120VAC, with fixed set point thermostat 20°C- NEC Cl1 Div2 Grp B,C,D; no enclosure cooling, enclosure temperature indication, no heat trace option, material certificate to BS EN 10204 – type 3.1 |
|---|--|

**ES70 ACCESSORIES, SPARE PARTS, DOCUMENTATION & SERVICES**

| Order Codes  | Product / Description  |
|--|--|
| <b>Spares &amp; Accessories</b>  |  |
| ES70-MF  | Michell standard mounting frame  |
| ES70-SSC   | Michell standard mounting frame, 316SS box section construction. Floor standing with sun canopy, with roof and three sides all SS316                                 |
| <b>Documentation (Standard documentation package comprises User Manuals (one printed per analyzer system) plus CD ROM containing Ex certificates, Drawing Set, Calibration Certificates and Pressure test certificates)</b>  |  |
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| <b>Additional Services</b>   |  |
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| GEN-96132  | Particulate filter 50µm mesh replacement element   |
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| <b>**These are the Michell charges for the FAT only. The cost of any third party inspector attending will be passed on, at cost, in addition to the Michell charges. Therefore, please ensure that the costs of any third party inspector(s) are added at the quotation stage.</b> |  |

**Please note: Michell Instruments adopts a continuous development program which sometimes necessitates specification changes without notice. Please contact us for latest version. Issue No: ES70 Sampling System\_97550\_V5\_UK\_0623**